24.
HAIR ANALYSIS RETESTING

Jimmy suffered terribly from autism. He had been doing extremely well on a nutritional balancing program for several years, with slow and steady progress. Just when his behavior was almost completely normal, he regressed and reverted to earlier symptoms of withdrawal and hyperirritability. His parents, who had spent several years following the nutritional balancing program, were very disappointed and decided to quit the program. Jimmy’s doctor was also upset, but knew from experience and from Jimmy’s earlier retest mineral analyses how well the boy was really doing on the inside. She believed this latest flare-up was likely a retracing, and not really a setback. She accepted the parents’ decision, but asked them to send her one more hair sample to see what might have occurred.

The parents agreed. The retest showed a manganese level of 2.40 mg%, or about 60 times the ideal. The level was so high it was repeated and confirmed. Such a high level of manganese is shocking, and associated with psychosis in adults. It indicated either a massive elimination of manganese, or the boy had suffered an extremely toxic manganese exposure. The latter had not occurred. The doctor told Jimmy’s parents of the manganese elimination and how to handle it, mainly by ignoring the behavior and keeping Jimmy’s body chemistry balanced with a light program until it passes. The extreme irritability and other odd behavior subsided after two weeks or so. Jimmy has remained well ever since with no further autistic symptoms. The retest was critical in this case to assess deep changes in body chemistry and to know how to proceed to save a child.

Hair analysis retesting is a critical aspect of nutritional balancing science. Interpreting retests is quite complex and involves everything from the previous chapters plus a lot more. This chapter is an introduction to the subject. Perhaps a later book will discuss it in more detail.

WHY RETEST THE HAIR EVERY THREE TO SIX MONTHS?

An analogy. Retests are needed to make ‘mid-course corrections’ in one’s journey to health and development. A retest is akin to pulling out the maps and compass, and taking a sighting to figure out where the ship or airplane is in the sky or on the ocean, having been blown around for a few months by the forces of nature and stressors of all types. This is the essence of a hair analysis retest. Regular retests are often needed with nutritional balancing because the changes that take place are so subtle and at such deep levels that symptomatic shifts are not reliable guides at all as to what is going on at much deeper levels.
The reasons why retesting the hair is vital for success with nutritional balancing are:

- **Safety.** Retesting assures that a nutritional balancing program is current and appropriate to the best of our ability. Safety is always the primary concern in nutritional balancing science.
- **Maintaining a high level of adaptive energy.** Keeping the oxidation rate and major ratios balanced by adjusting the program periodically with retests is the key to making sure a person’s adaptive energy level remains high. This is the single greatest key to success.
- **Assessing progress at deep levels.** Retesting is often the only way to assess deep changes in the body such as alterations in toxic metal levels or in key mineral ratios.
- **Evaluating old and new signs and symptoms.** With nutritional balancing, the body corrects symptoms in its own order. As a result, some symptoms may persist for months or longer, while others may disappear quickly. Those that persist may be from very deep levels that have not yet been uncovered. Retests are often the only way to understand how the process of uncovering layers of adaptations is unfolding, and how to assist the process.
- **Psychological importance.** A retest is often the only way to understand why certain feelings or emotions have changed. At times, for example, feelings of depression or anxiety may occur. A retest often tells us why this is so and how to correct them safely and permanently.
- **Staying with the program.** Many biochemical imbalances cause few symptoms. Retests often help clients stay with a nutritional balancing program by assisting them to actually see how their bodies have changed and improved at deep and subtle levels.
- **Addressing new stressors in a person’s life.** A job change, a new relationship, or a death in the family, for example, may alter body chemistry significantly. Only a retest can detect the resulting subtle changes in the body chemistry, and allow us to adjust the program properly.
- **Insights about puzzling temporary symptoms.** At times, unusual symptoms may arise on nutritional balancing programs. One can easily become confused and frightened when this occurs. A retest will often reveal the cause, as well as how to correct the symptoms.
- **Feedback and reassurance for the practitioner regarding 1) compliance, 2) the adequacy or efficacy of the program and 3) stress factors of which the practitioner was unaware.** Retests can provide practitioners with this and other valuable information. For example, if little or no change occurs on a retest, one may need to find out if the client was really following the program correctly. In other cases, little change on a retest may indicate that the program needs to be altered in some way.
- **Addressing latent, sub-clinical or undiagnosed health conditions.** Nutritional balancing allows the body to address latent and undiagnosed conditions that are essentially silent. Often the only way one can even know that healing has taken place at very deep levels is with a retest that shows an improvement in a key level or ratio.
- **Assessing the need for other types of healing modalities or interventions.** At times, a retest is the only way to know that an infection or an emotional retracing is occurring that might require the help of other healing modalities to resolve it promptly.
- **Saving time, effort and money.** When a person’s biochemistry has shifted, remaining on an old nutritional balancing program is, at best, a waste of time and money.

**PRINCIPLES OF INTERPRETING RETESTS**

- **Retests are about retracing.** When a person has been faithfully following a correctly designed nutritional balancing program, a retest after several months will reveal a deeper layer of adaptation. The task of interpreting retests is to assess the new layer of adaptation
and decide how to proceed. This idea of layered imbalances is well-known in some healing arts such as chiropractic and homeopathy. It is unfamiliar in conventional medicine, but is the central theme in the interpretation of retests in nutritional balancing science.

- **Deeper layers of adaptations and compensations can look similar to the ones above them, but may also look quite different.** While they sometimes follow logical sequences, at other times they appear quite random. This can be frustrating for practitioners and clients, at times, but is a definite feature of the complex process of retracing. Chapter 45 covers this in more depth. For example, one may uncover a layer of adaptation caused by an improperly healed cold or flu. The next layer down might relate to an emotional upset that occurred many years ago, and so on. The sequence of stressful events that are unwound is different for each person, but the principle of how to uncover and resolve them is the same for everyone. Fortunately, all that is required is to stay with the correction principles and follow the recommended program to resolve each layer as it arises.

- **Retests are often needed to break through long-held and very chronic metabolic imbalances.**

- **Changes on retests are generally beneficial, even if a retest looks worse, provided one is strictly following a nutritional balancing program.** A retest with even more imbalanced ratios or levels is a fairly common occurrence. Most often, it just indicates a deeper layer of adaptation that is more unbalanced in some regard. Later in this chapter are ways to tell if a more unbalanced retest is a problem, or if it should not be a concern.

- **In most cases, a complete understanding of all the changes on a retest is not possible, nor is it necessary or important.** This is related to the principle above. The important things is to note the changes on the retest and alter the corrective program appropriately.

- **Always examine actual mineral levels on a retest, not just the bar graphs.** This is important because, at times, small changes are significant on retests and may not be reflected on the bar graphs. Here are a few examples:
  
  a) A potassium level may increase from 1 to 2 mg%. This may not seem like much of a change. However, it is a 100% improvement and therefore quite significant.
  
  b) The oxidation rate may appear similar visually. However, slight changes in it can supply the body with enough extra energy to cause big changes in symptoms or health status.
  
  c) A rise in phosphorus from 10 to 11 mg% is excellent, but may be overlooked visually.
  
  d) A toxic metal such as lead may change from 0.001 mg% to 0.01 mg%. Both are very low readings. However, this is a ten-fold or 1000% increase in the level and generally indicates an active elimination of lead has begun.

**BASIC STEPS FOR RETEST INTERPRETATION**

1. **Repeat the steps of the initial test interpretation described in Chapters 22 and 23.** This will give you most of the interpretation of the test.

2. **Check with the client as to:**

   - How well were the diet, drinking water, lifestyle and detoxification protocols adhered to.
   - All changes in symptoms and health conditions, including emotional shifts as well.
   - Any new stress factors such as a new job or a new relationship.
   - New medical diagnoses, changes in medications, surgeries, accidents or major injuries.
   - Other events such as products used (herbs, vitamins, over-the-counter products or other).
3. **Check for four lows pattern.** If four lows pattern was present on the previous test, is it still present? If so, it is a persistent four lows, a very common type of four lows situation. If not, it is an excellent sign that the client is moving out of the pattern, and a very good response. If four lows is present now, but was not revealed on the initial hair test, it is most likely a retracing process and not as important, although the person most likely needs a four lows program.

4. **Compare the oxidation type and rate.** Changes often reveal information about a person’s energy level, illness conditions and more.

5. **Compare the sodium/potassium ratio.** Changes offer many clues about infection tendencies, glucose tolerance, tissue breakdown or catabolism, inflammation, energy level, the direction of change in the oxidation rate, and what to expect in terms of new symptoms.

6. **Compare the calcium/magnesium ratio.** It often reveals information about the diet and lifestyle changes. Recall that when the body eliminates toxic or biounavailable calcium, as often occurs when a person follows a nutritional balancing program, the calcium level on a retest will often rise a little, especially in relation to magnesium. In general, the elimination of metastatic calcium does not alter the calcium level by more than 20 mg%.

   Also, since the calcium level may be skewed to some degree by the elimination of biounavailable calcium, the magnesium level on a retest may be a more reliable indicator than the calcium level. Less commonly, biounavailable magnesium may be eliminated on a retest, usually raising the magnesium level. In this case, neither reading is totally accurate as to the actual metabolic level of calcium and magnesium in the hair tissue.

7. **Compare the zinc and phosphorus levels.** These can provide clues about changes in a person’s vitality level, dietary changes, digestive changes, toxic metal elimination in progress, and general zinc status. A rise in a low phosphorus, even of one mg%, is an excellent sign.

8. **Compare the toxic metal levels.** A rise in a toxic metal level usually means a larger quantity of the metal is being eliminated through the hair, and perhaps through the skin, during the time the hair grew. Even a tiny increase in a toxic metal level can be significant.

   A decline means that elimination through the hair and skin has slowed. It does not mean that one is now free of that toxic metal. The body may start eliminating more of it later, or perhaps it is being eliminated via the bile or urine. Perhaps the body has just cleared one organ, or one tissue, for now. In other cases, an illness or other condition stopped the elimination of the toxic metal for a while.

   If no change occurs in a toxic metal level, it does not mean that nothing is happening in regards to it. It simply means that the amount being eliminated through the hair and skin are about the same as they were during the previous three month period. Recall that hair readings are averages, so the amount being eliminated may have increased and then decreased again, for example. We cannot tell this from hair testing without repeatedly cutting very short samples close to the scalp and sending them for analysis once a month, perhaps. Even then, these would be averages as well.

9. **Other minerals.** Iron, manganese and copper, along with selenium and chromium, will often rise as they are eliminated from the body. Most people, especially slow oxidizers, have excessive amounts of biounavailable forms of these elements, including even newborns.

   Selenium and chromium often vary up and down on retests. This is normal and not a cause for concern. They may rise due to replenishing them in the diet and with supplements. They can move lower because as toxic metals are eliminated, selenium, chromium, zinc and especially magnesium are retained inside the body to replace the toxic metals in various sites.
COMMON MISTAKES IN INTERPRETING RETESTS

Interpreting retests take more practice than interpreting initial tests. Common errors are:

- **Focusing too much on any changes.** It is usually impossible to understand all the subtleties of a retest. It is fine to just know that the body must unwind many layers of imbalances, during which time mineral levels and ratios will rise and fall. Most important is to adjust the nutritional balancing program to maintain the oxidation rate and major ratios in balance.
- **Concern with a dramatic shift in the oxidation rate.** This usually just indicates a deeper layer of adaptation, which is excellent.
- **Worry over a decline in the sodium/potassium ratio or worsening of another imbalance.** Often the earlier level or ratio was displaced upward by the presence of toxic metals or some other stress factor. A decline in the sodium/potassium ratio, or going into a four lows pattern, for example, usually just represents a deeper layer of metabolic imbalance that has surfaced so that it can be handled and resolved.
- **Worry that an already very elevated calcium rises even higher on a retest, or the calcium/magnesium ratio becomes higher on a retest.** This is most often an elimination of biounavailable or ‘metastatic calcium’, a very positive change even if the test looks worse.
- **Worry that a zinc, chromium, selenium or phosphorus level declined on a retest.** Perhaps these minerals had been displaced upwards on the previous test and now truer values are revealed. In other cases, a vital mineral may be retained somewhere in the body for a while as toxic metals are replaced. The levels will recover on subsequent tests.
- **Worry that a slow oxidation rate became slower.** As the body relaxes, and as toxic metal ‘crutches’ are removed, the oxidation rate commonly looks worse for a while.
- **Worry that a fast oxidation rate becomes even faster.** This usually occurs because the elimination of toxic substances stresses the kidneys, perhaps, or other organs in such a way as to cause sodium retention and perhaps an adrenal stress reaction.
- **Excessive worry about an abnormal blood or urine test when a client is on a nutritional balancing program.** This is usually not warranted, in my experience. A retest of the blood or urine in a few weeks or months will usually confirm that it was a temporary aberration.
- **Worry about a lower sodium/potassium ratio.** However, this ratio will often rise as the oxidation rate slows, and the ratio may move lower when the oxidation rate increases. This occurs because a slower oxidation rate reduces a type of stress on the body that allows the sodium/potassium ratio to rise in most cases. On a retest, an increase in the oxidation rate with the same or a higher sodium/potassium ratio is often an excellent sign in a slow oxidizer. It means that stress was reduced enough that the body can maintain the Na/K ratio with a faster oxidation rate.

UNUSUAL RETESTS

In the following situations, retests can appear to make little logical sense:

1. **The patient feels better, but the test looks the same or worse.** Reasons for this are:
   - **The retest is not interpreted correctly.** The doctor may overlook subtle improvements.
   - **The retest does not show the current changes in body chemistry.** This occurs on occasion.
• The adaptive energy level has improved, so the client feels much better. The retest is simply revealing the next layer of adaptation that needs clearing.

Other, less likely possibilities include:
• The retest is correct, and the client’s improvement is temporary or superficial only.
• The retest readings might be inaccurate due to a laboratory error. This is extremely rare with Analytical Research Labs. However, tests from laboratories that wash the hair before performing the analysis can return erratic results.

2. The retest looks better, but the client feels the same or worse. In most cases, the client is healthier, but does not feel it for many possible reasons:

• The client does not recall some of his original symptoms. This is extremely common and, in fact, everyone does this to a degree. When I hear from clients that they are not feeling much different, I always look back on the original intake forms and ask about specific symptoms. Often several are completely gone, but the client has forgotten about them.
• An increased activity or stress level obscures the improvement in one’s health. As health improves, many clients increase their activity level. This can cause a relapse of sorts. It is not a problem with the program, but with the person’s reluctance to keep resting adequately to permit healing to proceed. Careful questioning may be required to assess this situation.
• Uncovering a deeper layer of imbalance. As a deeper layer of adaptation is unwound or uncovered, a deeper layer may cause new symptoms to appear. This can easily be mistaken for a worsening of health.
• A healing reaction is occurring. This is a temporary flare up of an old or a new symptom that often accompanies the healing process. It can cause any imaginable symptom. Most retracing reactions do not last long, though occasionally a chronic infection or trauma may require a month or more for complete healing.
• Ridding the body of a latent condition. This is a specific type of retracing in which a latent health condition the client was totally unaware of is being resolved. Fatigue, aches and other minor symptoms are common during these events. It is not a worsening of health, however.
• Major symptoms are the same, but improvement occurs in a minor symptom. This occurs because nutritional balancing corrects all symptoms in the body’s own order, not necessarily the order in which a client may wish for.
• It is too soon for the patient to notice the positive changes the retest indicates. This may occur because hair analysis can be an early indicator of changes in body chemistry.
• A higher level of awareness can make a person feel worse for a while. This is a common and interesting problem. For example, those with sympathetic dominance pattern are often unaware of their exhausted state when they begin a nutritional balancing program. As they progress, they relax and may become far more conscious of how tired they are. They may feel worse, but in reality they are better off because they are now more in touch with their bodies. Similarly, those with a low sodium/potassium ratio or a calcium shell are also often out of touch, and may feel somewhat worse as their awareness increases.

Environmental awareness also increases on the program. A gentleman wrote me that he cleaned up his house of all allergens, dust and toxic chemicals. Now, he complains, he is even more sensitive to allergens. I explained that he is actually in better health and just did not realize how sensitive he is to allergens until he cleaned up his house.
Increased emotional awareness also occurs. For example, as healing progresses, one may become aware of old habits of anger or negativity. This does not feel good. However, it is often a key to healing these old mental and emotional wounds.

3. Little or no change on a retest or in a client’s symptoms. This is the most frustrating situation. Fortunately, it is rare if the program is set up right and followed correctly. Possible reasons this may occur are:

- **Inadequate compliance with the program.** Some clients don’t tell the whole truth when asked how well they are following the program. Also, some clients require more strict adherence to the program in order to obtain excellent results.
- **Improper test interpretation.** Remember that small changes are significant on a hair analysis.
- **The client has forgotten some of his symptoms.** This is also common.
- **Stress or ‘psychological override’.** Something in the client’s lifestyle, health picture or even attitude is so negative or harmful for healing that it overrode and negated most of the benefit of the nutritional balancing program.
- **A serious illness may be present.** This is not common, but it can occur, especially in older people. However, even when a serious condition exists, most people still show some improvement on retests, even if it is superficial.

4. All four macromineral readings are higher on a retest. This often indicates improved vitality, especially if it is accompanied by a better sodium/potassium ratio and/or improved phosphorus level.

5. All four macromineral readings are lower on a retest. This usually occurs as toxic metals are eliminated. It means that the numbers on the previous test were somewhat falsely elevated due to the presence of toxic metals such as the ‘three amigos’ – iron, manganese and aluminum. As these metals are removed, often all four macrominerals will be a little lower, which is fine and usually a more accurate depiction of the person’s true body chemistry.

6. A complete change occurs in the oxidation rate. An elimination of toxic substances through the kidneys at times causes a shift from slow to fast oxidation. Another possible cause is an acute infection or other acute stress conditions. A fast oxidation rate often changes to slow on a retest as toxic metals or other poisons that were irritating or stimulating the adrenals and/or thyroid gland are eliminated from the body.

**PATTERNS ONLY DISCERNABLE ON RETESTS**

Many interesting hair mineral patterns can only be seen on retests. This is a more advanced area of research (see [www.drlwilson.com](http://www.drlwilson.com)). Common retest patterns include:

- **Coming alive.** All four macromineral levels increase.
- **Settling down.** All four macromineral levels go down.
- **Amigo dump.** The levels of the amis (iron, manganese, aluminum) all go up or down.
- **Armoring up.** The levels of many toxic metals become very low, indicating retention.
- **Getting help.** The level of magnesium increases at least 30-40% on a retest.
• **Rocking pattern.** The pattern shifts from fast to slow to fast oxidation on retests.
• **Diving Deep.** A low sodium/potassium ratio becomes even lower.
• **Bowling.** A person develops more of a bowl pattern on a retest, even if it is not complete.
• **Hilling.** A person develops more of a hill pattern on a retest, even if it is not complete.
• **Elevator patterns (up or down).** The levels of macrominerals go up or down, but the ratios stay about the same. It indicates that certain issues have not been resolved.
• **Forward Flip.** A pronounced correction, such as a very low Na/K changes to high Na/K.
• **Out Of The Tunnel Backwards.** A four lows pattern on the previous test changes to fast oxidation with no four lows pattern on a retest. This is not the usual way to exit four lows, and usually indicates the exiting is temporary and the person will go back into four lows.
• **Exiting the cult or group.** A rise in the nickel level from low to high on a retest.
• **On fire.** A rise in the phosphorus level on a retest of at least 2 mg%.

**QUESTIONS REGARDING RETESTS**

**Why do retests change?** The reasons include:

• **Release of a toxic metal or toxic chemical.**
• **Resolution of a chronic infection.**
• **Change in the activity of the glands, such as the thyroid or adrenal glands.**
• **Retracing of an older biochemical pattern or layer of adaptation or compensation.**
• **Direct effect of a dietary shift, such as reducing sugar or caffeine intake.**
• **Direct effect of supplementing a nutrient such as zinc.**
• **Direct effect of a detoxification procedure such as coffee enemas or saunas.**
• **The effect of a psychological or emotional shift due to the program or to other causes or circumstances.** This might include leaving a stressful job, or even just relaxing because one feels that help is on the way for one’s health problems.

**Why do some people change faster than others?** The reasons include:

• **Which patterns are present.** In general, four highs and fast oxidation can change fastest. Slow oxidation and four lows, especially when sympathetic dominance is present, tend to change more slowly, in part due to a lower level of energy available to cause change. High amounts of toxic metals may slow change, although this is quite variable and not too reliable.
• **Compliance.** Most people do not follow the entire program faithfully. Those that follow it best and have the best support from their families will often change much faster.
• **Other stress.** More stress tends to slows the rate of change and could stop it altogether. Stress may be of any type such as a lack of rest, an illness, a family problem or others.
• **The vitality level, temperament, maturity, age and other factors.** For example, children tend to change quickly. They have greater vitality as a rule, and are generally healthier. They also almost always have fewer distractions and traumas that get in the way.
• **The types of health conditions that are present.** Chronic illnesses tend to respond more slowly, in general, though at times, a long-standing condition clears quickly.
• **Other natural or medical therapies.** If coordinated properly, adjunctive therapies such as chiropractic, body work, sauna therapy, coffee enemas, colon hydrotherapy or acupuncture needling can greatly speed progress. Other therapies severely block some kinds of changes,
in our experience. These can include many herbs and bio-identical hormone therapy. Other methods that do not combine well with nutritional balancing and are never recommended include using ionic footbaths, alkaline water machines and adding other supplements.

- **Correctness of the program.** At times, the program is exactly right for the person. At other times, it is not quite as perfect and therefore a bit less effective. Often this is unavoidable and occurs to some degree with most therapies.
- **Desire and commitment.** These matter a great deal in some cases, especially if one is very ill. A strong desire to be well and a commitment to one’s health can move a person faster.

**When should one be concerned about a retest result?** In general, if a person is following the nutritional balancing program faithfully, progress is occurring, even if the new test readings are unusual or seem worse. Reasons why retests may look worse than expected or do not change as quickly as one would wish are:

- *Old or ingrained metabolic patterns are hard to break, at times, and take more time.*
- *A layer of compensation has been uncovered that is very out of balance in some way.*
- *A stress factor the client may be only vaguely aware of may slow progress.* It might, for example, be an increase in one’s workload or a family concern.
- *The body can only heal itself at a certain rate.* This is dependent upon its vitality or adaptive energy level, along with many subtle qualities of the body and mind.
- *Clearing some imbalances, such as nasty old infections, can be a lengthy process, at times.*

**How many retests does a person need?** Symptoms often begin to improve within a few weeks or even sooner. However, in terms of deeper healing, the first three years often just get rid of the bulk of many people’s toxic metals. For best results, most everyone needs to remain on a nutritional balancing program at least 10 years or more. Reasons for this include:

- *Even children today often have many layers of imbalances to correct.* It requires months or years to uncover and resolve them. Dr. Eck once mentioned that doctors know it can take nine months to replenish just one mineral such as iron. How long, then, must it take to replenish 20 or more vital minerals and other nutrients as well?
- *The body will not absorb too much of a nutrient at once.* This is due to complex buffering systems to prevent an overload of a nutrient found in food.
- *Removing toxic metals and toxic chemicals is a delicate process.* If done too quickly, it would be extremely dangerous. Only a certain amount of any toxic metal is allowed to be released into the bloodstream, or it would fatally overload the liver and kidneys.
- *One’s identity may need to change as the body chemistry recovers and shifts in a healthy direction.* This takes time for most people, and is an important reason why many people cannot get well too fast without feeling anxious, for example. Chapter 12 discusses this.
- *This program can cause the release of old and deep physical and emotional wounds that results in what I am calling mental development.* This is a lengthy process that can go on for many years, and is well worth continuing on a nutritional balancing program for many years.

In addition, the lifestyle part of the program should be followed for life, in most cases. The supplements will be needed less, but the healthful lifestyle, the correct drinking water and a proper diet are basic human requirements for a long and healthy life on earth.
How often should retest hair analyses be done? Dr. Eck recommended retests every three months when a person is following a complete nutritional balancing program. This is best to catch subtle changes in body chemistry and adjust for them. To save money and for convenience, I allow clients to have a retest hair mineral analysis in six months, providing that 1) the client’s health is fairly stable, and 2) the client is not in patterns of fast oxidation, four lows or four highs. A retest in three to four months is needed in these situations. It is also helpful to retest in three months if new symptoms arise, if serious illness is present, or with an anxious client who feels the need for closer monitoring.

Closer monitoring. If detailed monitoring is needed or just desired, a retest may also be done as often as every 4-6 weeks. In such instances, be sure to cut the hair sample as close to the scalp as possible and cut the pieces of hair used for the sample as short as possible. This will give a more current reading of the hair minerals. This is usually only needed if a person is very ill, very anxious about his health, or if unusual symptoms arise that cannot be explained.

Why, at times, do the levels of sodium and/or potassium jump much higher on retests, especially if the program is designed to reduce the levels of sodium and potassium? This usually occurs due to kidney congestion as the body releases a toxic substance. If the Na/K ratio is very low, it could even be an elimination of biounavailable potassium.

Why can the levels of sodium and/or potassium decrease on a retest, especially when they are already somewhat low, and one is on a program to increase these levels? This is usually unwinding a pattern called a slow on crutches. Basically, when certain toxic metals are eliminated, the sodium and potassium levels can decrease, even though the adrenal and thyroid glands are actually in better condition. An analogy is a person who is healing, so he throws away a crutch that was keeping him walking upright. He may wobble or even fall down, at times, until he becomes used to walking without the crutch.

Why may a program be incorrect and need altering? Possible reasons include:

- **Allergic reactions.** Rarely, a person reacts to a food or a nutritional supplement. This is very different from a person feeling strange on a supplement because it is causing detoxification. Recently, a client told me he cannot drink distilled water, for example, as it causes lightheadedness. This is more likely a detoxification reaction, not an allergy.

- **A fast and deep change in body chemistry.** For example, one could shift from fast to slow oxidation or vice versa. In this case, the program is now inappropriate and could easily make a person feel worse. At times, it can be altered without a retest. However, a retest is best.

- **A new stressor or lifestyle shift has occurred.** This may render the program inaccurate. For example, the onset of an illness like cancer, or an accident or major surgery could alter body chemistry and require a new hair analysis.

- **Traumas and retesting.** All injuries, accidents, surgeries and other traumas cause a fight-or-flight reaction to a degree. This may require a change in the program, at least for a while. Some cause permanent change, such as the drugs from a long surgery, for example. Others, such as a broken leg, perhaps, may cause only short-term alterations in body chemistry.

To observe the effects of a trauma on the hair tissue, one must wait at least one month after the trauma and then cut the hair very close to the scalp and throw away hair that is longer than about 1/4 to 1/2 an inch long to observe the most recent changes in the hair.
tissue. Alternatively, one can attempt to adjust a program without a retest. This might be necessary if a person develops severe symptoms after an accident, surgery or other trauma.

**How can one adjust a program, if necessary, without a retest?** Adjusting a program without a retest is very inaccurate. The body is extremely complex. This is one time when using muscle testing, for example, may help guide the practitioner. However, this is only for emergencies and temporary until a retest can be done. Here are basic guidelines:

- If the person reports feeling more anxious, irritable or unable to slow down, perhaps the oxidation rate has increased. Recommend fewer tablets of kelp, Megapan, B-complex vitamins, manganese, copper and adrenal and thyroid glandulars. If extreme, stop these products altogether.
- If the person reports feeling more tired or depressed, perhaps the oxidation rate has slowed. In this case, discontinue or reduce SBF, Stress Pack, copper and perhaps calcium, magnesium and zinc supplements and see if this helps. Zinc, however, is helpful for healing.
- If a person reports feeling more energized after a trauma, perhaps stop the entire program except for GB-3 or other digestive aids until things settle down. This may promote faster healing than staying on a full program designed to remove toxic metals and balance other ratios. After an accident or trauma, the body may prefer to concentrate on simple wound healing for a week or two, or perhaps up to a month in rare cases. More rest is also critical.

**What should one do if a person reacts badly to a nutritional balancing program?** If a program seems incorrect because symptoms are worse, the first thing to do is to discontinue the strict dietary and supplement program for a few days to see if the problem goes away. If it does, it may have been due to a reaction to a product or dietary item. The symptom may also have been due to a healing reaction caused by the program. If no change occurs upon stopping the program, the cause of the symptom may have little or nothing to do with the nutrition program.

If the symptom improves off the program, after a few days or so slowly restart the program with perhaps just the diet, at first. If all is well for a few days, then add one dose of supplements per day or even one product at a time, to be extra cautious, to see if you can figure out which food or supplement is causing a reaction. Many times following this procedure the symptom will not recur. In this case, most likely it was due to a healing reaction that has gone through to completion and the client can resume the full program.

If it does recur, the person may be reacting to a product or food, though it could be causing a healing reaction in a few cases. If one is reacting to a product, a substitute may be tried, or one may be able to discontinue the offending product. However, one should try the product again in a month or two, as many times reactions to products that we use are temporary and due to a leaky gut or other digestive organ imbalance that will go away in time.

Rarely, a change in body chemistry occurs within a week or so after starting a nutritional balancing program, and the program may need modifying immediately. This can be awkward because a retest hair analysis cannot be done this soon. With some experience, however, a practitioner may be able to make an educated guess as to how the body chemistry has shifted. This can allow the program to continue until a retest can be done, usually within six weeks.

**The Retest Hair Analysis Checklist.** The checklist on the following page can be helpful for interpreting retests in a systematic way so as not to forget important details.
RETEST HAIR ANALYSIS INTERPRETATION CHECKLIST

Name: ____________________________________ Date: __________________

Faithfulness with the program (mark how well the program has been followed (0 – 5):
___Diet ___Lifestyle ___Supplements ___Saunas ___Enemas ___Meditation ___Sleep

Persistent patterns:
___Four lows (needs a special program) ___Four highs (always a slow under stress)

Changes in the oxidation type and rate
Type: ___true fast ___slow under stress or temporary fast ___slow ___mixed
Rate: ___extreme ___moderate ___balanced
Change: ___much faster ___faster ___slower ___much slower

Eliminating biounavailable calcium and magnesium? ___yes ___no

THE PAIR
Calcium ___ level better worse
Phosphorus ___ level better worse

THE TRIPLETs
Magnesium ___ level better worse
Sodium ___ level better worse
Potassium ___ level better worse

THE TWINS
Zinc ___ level better worse
Copper ___ level better worse

THE THREE AMIGOS, PLUS TWO
Iron ___ level better worse
Manganese ___ level better worse
Aluminum ___ level better worse
Chromium ___ level better worse
Selenium ___ level better worse

RATIOS:
Sodium/potassium ratio (Na/K): ___ratio better worse
good (2.5–5) high (above 5) low (below 2.5) extreme low (below 1)

Calcium/magnesium ratio (Ca/Mg): ___ratio better worse
good (5 - 9.5) high (9.6 - 13.5) spiritual defensiveness (Ca/Mg > 13.5)
low (below 5)

OTHER TOXIC METALS: OTHER IMPORTANT PATTERNS:
Lead ___ level better worse ___sympathetic dominance ___bowl
Mercury ___ level better worse ___spiritual defensiveness ___hill
Cadmium ___ level better worse ___overwhelming stress ___step down
Arsenic ___ level better worse ___double high ratio ___double low ratio
Nickel ___ level better worse ___passive-aggressive ___step up
Donald, age 64, is an investment manager who was diagnosed with cardiomyopathy in 2004. He was told he might live another 5 years or less, and he would suffer with breathing and walking difficulties before he died. His symptoms included ventricular tachycardia, frequent premature ventricular complexes and hypertension. He also had glaucoma, chronic asthma, coughing, frequent colds, dry skin and an impaired memory. Don's first hair analysis revealed a pattern of three low macrominerals with an extremely elevated sodium level of 53 mg%. This is called the overwhelming stress pattern. It was literally killing him. A high sodium level is associated with high blood pressure, edema or fluid retention, and acute stress. He also had a double high ratio pattern, intensifying the acute stress pattern above. Also notable was a phosphorus level of 11 mg%, a low vitality indicator. Mercury was also elevated at 0.08 mg%.

Don's response was slow, in part because he wasn't too interested in the nutrition program and basically started it because his wife insisted he try it. However, he used a near infrared light sauna daily for 25 minutes and followed the diet and supplement program well. On his second test, the extreme stress pattern was worse, with a sodium of 100 mg%. However, his calcium/magnesium ratio had normalized. Also, very significantly, his lead level increased six times to 0.34 mg%, a significant elimination of lead. Mercury came down, while arsenic and aluminum rose as they began to be eliminated. Don started to feel better at this time.

His next retest was six months later. The lead level decreased. Mercury rose once again to 0.067 mg%, indicating another round of mercury elimination. Phosphorus improved from 10 to 12 mg%. Also very important for heart disease, Don started eliminating the 'three amigos' - aluminum, manganese and most importantly, iron. These increased dramatically on his next test in February of 2006. Iron went from a low of 0.6 mg% on the first test up to 8.2 mg%, a very high reading. He also eliminated another round of lead, which shot up to 0.296 mg%. He began eliminating other toxic metals with nickel at 0.226 mg%, mercury of 0.047 mg%, arsenic of 0.018 mg% and aluminum of 1.81 mg%. He also eliminated a toxic form of chromium, as that reading went from a low of 0.02 mg% up to 0.642 mg%. At times, biounavailable and toxic chromium is eliminated along with the three amigos, iron, manganese and aluminum.

Meanwhile, Don's extreme stress pattern persisted, but kept improving slowly. The most recent hair analysis shows a much healthier macromineral pattern and much reduced toxic metal levels. Don reported that his newest cardiac ejection fraction tests are so good he has been discharged from regular care by his doctor. He lives a normal life and continues to work full time, travel on vacations and do everything he did before becoming ill.
**Vitality or adaptive energy.** This chapter discusses the single most important concept in nutritional balancing science, that of *vitality*. Dr. Hans Selye, MD, used the term *adaptive energy* to mean the same thing. In this text, these words are used interchangeably. Dr. Paul Eck and other physicians believed that *adaptive energy* is the *common denominator of health*. Bernard Jensen, DC, ND, another of my mentors, stated the same idea in saying that “fatigue is the basic disease”. In other words, low adaptive energy is the beginning of all pathology in the body. An analogy is that our bodies are like modern automobiles with many `power` features such as power brakes, power steering and so on. As a result, if one loses power, all of these functions cease to operate correctly.

Our bodies work similarly in that all of its functioning depends on sufficient vitality or adaptive energy. As a result, low adaptive energy results in a decline of all activity from digestion and the immune response to circulation and nervous system activity. This is why the concept of vitality is central for healing and a focus of nutritional balancing science.

**DEFINITIONS**

**ADAPTIVE ENERGY.** Hans Selye, MD defined *adaptive energy* as that force that permits an organism to adapt to stress. This is somewhat different from energy used to just move the body around, for example. Adaptive energy is a more profound concept having to do with the body’s ability to alter itself in response to the constant challenges that come from its internal and external environment.

**VITALITY.** As used in this textbook, vitality is identical to adaptive energy above. However, there is another definition that is important in relation to vitality. One may call it life force energy or vital force.

**VITAL FORCE OR LIFE ENERGY.** This is an energy that permeates all things, both living and inanimate objects such as minerals, rocks and others. In other cultures it is called chi, qi, prana, life force, orgone energy, nerve energy or even God. Without it, all physical life stops. It is described in physics as certain particles such as protons and electrons. However, it is more than this, as it is also very related to life. The more it can be nurtured, enhanced and conserved, the more that life thrives.

**Vitality in nutritional balancing science.** Nutritional balancing focuses on nurturing a person’s vitality or enhancing the life force. This is actually closer to the ancient sciences of healing than it is to post-modern medical care that basically ignores it. Nutritional balancing, however, uses Western terms and concepts such as systems theory to make the process of nurturing the vital force more mathematical, precise and simpler for anyone to understand.

**USEFUL PRINCIPLES REGARDING VITALITY**

1. **One cannot necessarily feel vitality or adaptive energy.** This means that having plenty of adaptive energy or adaptive energy is not a feeling, although high vitality feels very good inside. It is more about potential or capacity to live well, adapt to stress and overcome illness and other challenges. In fact, when most people “feel energized”, often it is due, at least
in part, to stimulation rather than vitality. A cup of coffee, for example, does not add much vitality to a person. Instead, it mainly stimulates the body, which reduces vitality a bit.

Reasons why those with low vitality may appear to have plenty of energy include:

- **Use of stimulants.** Coffee or other caffeinated foods or drinks, sugar, hot spices, cigarettes, various medical and illegal drugs, anger, fear, sexual drive, a need for money and even certain music all act as stimulants for millions of people around the world.
- **Overexerting oneself.** Millions also run on nervous energy. They may have a sympathetic dominance pattern on a hair test and habitually push themselves, even when exhausted.
- **Toxic metals or toxic chemicals.** Many irritate the nervous system and act as stimulants.
- **Illnesses.** Hyperthyroidism, for example, can stimulate the body, at least for a while.

2. **The amount of vitality, life force or adaptive energy inside of an individual is complex and depends on many factors.** However, there are two main ones. The first is what a person is born with. This goes even beyond genetics and has to do with other factors, possibly. The ‘bank account’ of vitality that one is born with slowly runs down with age. This is why most babies and children are more vital than most older adults.

   The second factor is how one lives one’s life. This aspect of vitality and vital force has at least three components:

   - **How well one conserves the adaptive energy one was born with.**
   - **How much vital energy one is exposed to in things like sunshine, air, food, water and even certain places that have a ‘healing energy’.**
   - **How well a person is able to absorb and utilize vital force that exists outside and around oneself in the air, water and food, primarily.**

3. **This means that nutrition, as well as other lifestyle and dietary factors, are multifaceted.** Food, for example, is needed for at least four functions:

   - **‘Fuel’ and ‘replacement parts’ for the physical body.** Certain nutrients, such as vitamin C, for example, also help remove harmful chemicals such as free radicals from the body.
   - **The food is needed to preserve the integrity of each cell of the body to conserve the vital force that one was born with.**
   - **A source of more vital energy.**
   - **A way to heal and maintain the transducing or absorbing mechanism that permits one to utilize vital force that is in sunshine, air, water, food and elsewhere.**

4. **To generalize from the paragraph above, to best promote healing, one should employ any and all methods that can:**

   - **Provide all the fuel, building and maintenance materials** such as nutrients, air, water and perhaps others.
   - **Help conserve the vitality one was born with.**
   - **Offer the body more life force.**
   - **Preserve and enhance the body’s ability to absorb and utilize life force.**
Natural healing methods can excel by providing building materials and more life force energy at the same time. Medical drugs and surgery, in contrast, while they may save lives, usually do not provide more than this so they are limited, relatively speaking. For this reason alone they should be used sparingly as a last resort only. In addition, they tend to cause damage to the organism as they are foreign to it in most cases.

Natural healing methods must include much more than just the diet and lifestyle. They may includes a person’s sleep habits, attitudes, thoughts, integrity level, physical posture, breathing habits and more. They might also include very esoteric methods such as special kinds of drinking water, various electrical machines, certain herbs, special exercises or poses, sounds or chants.

5. **Balancing the forces of yin and yang both preserves the life force one was born with, and enhances one’s ability to absorb much more life force energy from one’s food, water, air, sunshine and elsewhere.** This is why nutritional balancing science:

- *Focuses attention on balancing the oxidation rate and the major mineral ratios on a properly performed hair mineral analysis.*
- *Avoids focusing on any single mineral, gland, hormone or symptom too much.* The latter is called symptomatic healing and is much less profound. It may relieve symptoms, but the person’s adaptive energy or vitality does not improve much, and may become worse in the process. Spiritual development usually stops, as well.
- *Avoids everything that is yin, except in the rare case that the body is too yang.* Yin foods, for example, include almost all fruit, fruit juices, dried fruit, sugars, chemicals in foods and water, and yin vegetables such as tomatoes, potatoes, eggplant, peppers, cucumbers, okra, summer squashes and perhaps a few others.
- *Suggests cooking most food, which makes it more yang.*
- *Uses more yang methods of supplementation.* This means keeping the number of supplements low, and using special care in choosing nutritional supplements.

6. **An entire book could be written about how to conserve and enhance vitality.** In fact, it is a science all by itself. Nutritional balancing incorporates some important and easy ways to preserve and enhance vitality. Perhaps a separate book will go into much more detail on this subject in the future.

**ADAPTATION AND VITALITY**

*A very important principle is that every time the body must adapt to its environment, energy is used up.* This means that adapting to cold, heat, noise, infection, lack of rest, toxic metals, improper food or other stress of any kind is not helpful for one’s health. This principle can be complex to apply, in that one’s favorite activities may involve some stress. The stress could be the cold weather if one likes skiing, or the time and expense involved in raising a beautiful child. So the enjoyment must be weighed against the physical stress on the body.

This is a critical principle. For example, many doctors encourage vigorous exercise for its many benefits. However, as explained elsewhere, exercise is a powerful sympathetic nervous stimulant. This means that vigorous exercise may not be helpful for overall health and vitality,
though one may feel good while one is exercising and shortly thereafter. The oxygenation and movement are important. One may be able to obtain these in a gentler way, however.

Dr. Kenneth Cooper, MD, the founder of aerobics, realized this after some 20 years of recommending heavy exercise. He found that many people doing vigorous exercise were having heart attacks or even developing cancer. He changed his mind and now recommends gentler exercise, claiming it provides all the benefits of vigorous exercise with fewer risks.

**TRIPLE ASPECTS OF BIOCHEMICAL ENERGY PRODUCTION**

Nutritional balancing is extremely interested in increasing biochemical energy production, which has at least three aspects: the energy pathway, the oxidation rate or yin-yang balance, and the enzyme efficiency or enzyme power of the body.

**An analogy.** To function correctly, a car engine must: 1) have all parts of the fuel system in working order, 2) be tuned or adjusted properly and run at the right speed and 3) have all other parts not specific to the fuel system working properly as well, such as the crankshaft, belts, hoses and more. Let us explore these concepts in more detail.

**Factor 1. The fuel system or energy pathway.** This consists of:

- *Eating fuel foods.* This means the right kind of food, in the proper amounts, when needed, with excellent eating habits such as chewing thoroughly and eating in a relaxed place.
- *Digestion and absorption.* This occurs in the mouth, stomach and finally in the intestines.
- *Liver action.* Here amino acids and other nutrients are often changed into other molecules.
- *Moving nutrients into the cells.* This is impaired when the oxidation rate is unbalanced, when omega-3 fatty acids are deficient and, at times, in other situations.
- *Mitochondrial conversion of sugar and fatty acids in the glycolysis and Krebs cycles.*
- *The combustion of ATP to release energy.*

All the steps must function perfectly to have optimum energy. A missing nutrient, an infection, a toxic metal or a toxic chemical can block the process from working correctly.

**Factor 2. The oxidation rate.** This is the equivalent of the ‘tune’ or adjustment of the engine, or running the engine at the proper speed. It is a more complex aspect of energy efficiency, though it is well understood by auto mechanics, for example. In our bodies, all enzyme systems “run” at optimum rates of temperature, pressures, nutrient levels and so forth. When the system is tuned or balanced, it produces far more energy with much less wear and tear on the body.

For example, if the body’s engine runs ‘cold’, which occurs with a slow oxidation rate, it is very similar to a cold car engine, and will not produce optimal power. Similarly, if the body is running too hot, which occurs with very fast oxidation, it is like an overheating car engine. It will not run optimally and will be damaged if it continues for any length of time.

**The body enzyme systems have a “torque curve”**. The paragraph above explains why our bodies have the equivalent of a torque curve. This is a graph of the performance of an engine as its speed or revolutions per minute increase. The curve looks like a hill or mountain with the highest efficiency somewhere in the middle of the speed range of the engine. This is
exactly how it works with our bodies as well! When the “speed”, or oxidation rate, is balanced, efficiency increases dramatically. When the oxidation rate is either very slow or very fast, power output or power efficiency decreases significantly.

**Sabotaging healing.** Many times, a wonderful healing method or remedy is rendered less effective or harmful because the patient has a faulty oxidation rate. Also, making slight changes in the diet, the lifestyle and the supplement program based on a properly performed hair analysis can cause dramatic healing changes. Essentially, it occurs due to much better “tuning” of the body’s fuel system to produce more energy.

**Factor 3. Overall enzyme efficiency.** This is related to the first and second aspects above. However, it is broader and includes all the enzyme systems of the body. All of them play a part, large or small, in energy production. Enzyme activity and efficiency is the result of how well-nourished the cells are and how many toxic metals are replacing preferred minerals in enzyme binding sites. The fascinating concept of preferred minerals is discussed in Chapter 8.

**Restoring the energy system.** Just as rebuilding an engine is an involved job, so is rebuilding the body’s energy system. This was a major focus of Dr. Eck’s research. It is analogous to replacing worn parts, removing ‘gum’ in the engine (toxic metals and toxic chemicals), and lubricating the parts with the correct water and other substances such as omega-3 fatty acids. Frequent ‘retuning’ of the engine using hair mineral analysis retesting is also helpful because each time one fixes a part of the engine it can change the adjustment of the engine, or the oxidation rate and major mineral ratios.

**ASSESSING VITALITY**

Vitality may be assessed in several ways. They include exotic methods such as Kirlian photography, radionic machines, or taking the acupuncture pulses. All have some merit and measure different aspects of human functioning. Hair mineral analysis can also be used, with surprising accuracy in many cases. It also offers a very objective, affordable and mathematically precise method that can even be interpreted by a computer at a distance. General vitality indicators include:

**High Vitality Level:**

- *No four lows pattern.*
- *Mild or moderate fast or slow oxidation, but not extreme fast or extreme slow oxidation.*
- *Calcium between about 30 and 80 mg%.*
- *Potassium between about 5 and 20 mg%.*
- *Phosphorus between about 13 and 20 mg%.*
- *The sodium/potassium ratio between 2 and about 7.*
- *The calcium/magnesium ratio between 5 and 9.5.*
- *In most cases, toxic metal levels should be low.*
- *Children or adults less than 30 years old tend to have higher vitality.*
Medium Vitality Level:

- No four lows pattern.
- Fast or slow oxidation may be moderate, but are not likely to be extreme.
- Calcium between 20 and 100 mg%.
- Potassium between 2 and 20 mg%.
- Phosphorus between 12 and 25 mg%.
- The sodium/potassium ratio between 2 and 12.
- Toxic metals not too extreme.

Lower Vitality Level:

- Possibly a three lows or four lows pattern.
- Fast or slow oxidation with an extreme rate possible.
- The sodium/potassium ratio may be less than 2 or greater than about 12.
- Phosphorus possibly less than 12 mg%.
- Possibly a double low ratio pattern (low sodium/potassium ratio with a low calcium/magnesium ratio as well).
- Possibly a step up pattern (double low ratio with fast oxidation).
- Possibly extreme sympathetic dominance (potassium less than 3 mg%).
- Any age, but more likely if one is older than 50.
- Possibly a deep bowl pattern.

The more of the patterns in each of the three categories above that are present, the more likely that this is the level of a person’s vitality. If patterns persist on more than one hair test, this reinforces the tendency for high, medium or low vitality. A pattern that appears only on an initial hair test is less critical.

VITALITY AND THE ADRENAL/KIDNEY SYSTEM

In Chinese terminology, the kidney/adrenal system is the “source of the chi”. This is close to a concept in nutritional balancing that the adrenal glands are central for one’s vitality. This is an important parallel between the two systems of healing and Dr. Eck may have been aware of this connection.

BUILDING VITALITY

Every aspect of nutritional balancing science is designed to build vitality. This is what distinguishes nutritional balancing from many other healing sciences. Higher vitality, then does the healing at many levels at once. Methods used to enhance vitally in nutritional balancing are:

- Reducing all exposure to toxins. By definition, a toxic substance decreases vitality.
- Correcting the diet and eating habits. Avoiding yin foods such as fruits, sugars and chemicals in foods, and cooking most food balances the body as well.
- Increasing oxygenation and hydration of the body. Deep breathing of clean, pure air is the simplest method to enhance oxygenation. Other methods include adding about 2/3 of a cup of 35% food grade hydrogen peroxide to a bath, sitting in an ozone-rich chamber, drinking
ozonated water, use of deuterium sulfate or other deuterium products, or even using medical oxygen for a few hours a day. Distilled or spring water are usually best for drinking.

- **Balancing the oxidation rate.** This has been discussed above.
- **Improving the eliminative systems of the cells and the entire body.** Coffee enemas and saunas, for example, are very helpful for this. However, the entire program is geared to improving the body’s ability to eliminate all types of toxins.
- **Modifying the lifestyle.** For example, more sleep and going to bed early are most critical.
- **The Roy Masters observation-meditation exercise.** This particular exercise is very helpful. It was not a part of Dr. Eck’s original program, but it can bring up and help release old traumas, relax a person and balance the emotions. It can also increase vital energy in the body.
- **Sexual restraint.** This topic is out of fashion these days, but the ancients knew that sex depletes the body, particularly for men, and today for women as well. This does not mean one should avoid intimate relationships. In fact, healthy relationships are excellent for everyone. However, most men and women will progress much faster if they will conserve their sexual fluids.

**IMPLICATIONS OF THE VITALITY CONCEPT**

- **Enhancing vitality will assist healing of all conditions - physical, mental and emotional.**
- **High vitality assists with all cognitive and mental skills as well.**
- **Adaptive energy or vitality is also essential for development of certain higher nerve centers in the brain.** This may be called spiritual development or the development of the whole person. This development in many more of the world’s people is the only real answer to many pressing world problems.
- **The culture, morals, and even the religions of a society are powerfully influenced by the vitality level of an entire population.** While this is a large subject, examples of how this works include:
  
  - Those with a high vitality level are able to produce more goods and services, and tend to make better citizens, parents, businessmen, government officials and even soldiers.
  - Those with a lower energy or vitality level often have more personal problems and are more likely to turn to drug use to feel better. In contrast, those with high vitality usually will have nothing to do with stimulants, depressants and other drugs, provided their bodies are balanced properly.
  - Also, following a moral code may seem far more difficult and less important when a person’s vitality level is low. This is unfortunate because moral codes are powerful ways to improve people’s vitality in the long run.

It is my sincere desire that nutritional balancing will help thousands of people to have a higher vitality level and therefore to live healthier, happier lives. Even if just one or two aspects of nutritional balancing science were implemented on a large scale, they would tremendously benefit most people.
Regina, age 26, complained of frequent gas and bloating. She also suffered from alternating diarrhea and constipation. Anxiety and irritability were also a problem most of the time. Her medical doctor diagnosed irritable bowel syndrome, and prescribed a sedative and a fiber-rich diet. This only helped a little. Her first hair mineral analysis revealed common patterns of slow oxidation, hidden copper imbalance, with mercury and aluminum toxicity. These patterns are commonly associated with the overgrowth of candida albicans and other intestinal infections, since bioavailable copper is needed to prevent yeast overgrowth. Mercury can kill some intestinal organisms, but may cause others to flourish.

On a nutritional balancing program, Regina felt better almost immediately. Most likely, this occurred because she was told to avoid common allergic foods such as wheat and most dairy products. Also, she greatly reduced her sugar intake, which feeds yeast organisms. She also dramatically increased her intake of steamed vegetables that provide excellent fiber and many other nutrients that help digestion and can help flush out infections in the intestines.

At the same time, her supplement program began to enhance her slow oxidation rate and balance her tissue copper. This soon reduced her anxiety and irritability, which also improved her digestion. Her supplements included GB-3, a powerful liver support product and digestive aid. It can literally digest and kill hundreds of intestinal parasites, improve digestion and increase bile flow to normalize the pH and the flora of the small and even the large intestines. Within six months, Regina’s symptoms had all but vanished.

Digestive and bowel problems, especially constipation, are perhaps the most common health complaints in the modern world. While fatigue and depression cause more doctor visits, constipation, in particular, is far more prevalent, especially by the definition in this chapter. Fortunately, it is usually easy to correct with simple, natural methods.

A BRIEF LOOK AT THE DIGESTIVE SYSTEM

Chew your food for healthy digestion. Digestion begins in the mouth with chewing to mechanically break down food. In addition, enzymes in the saliva, mainly amylases, begin starch digestion in the mouth. Many food components including some vitamins and minerals, sugars and others, can be absorbed directly from the mouth into the blood stream. Chewing each bite at least two dozen times is most helpful for good health. It is also a simple and very healthful way to eat less and lose weight. It may feel odd at first, but quickly becomes a healthful habit. If a person cannot chew food thoroughly for some reason, one should blend,
puree or juice the food in a blender or food processor. This is not as good as chewing. However, it is much better than swallowing food without proper mastication.

**Digestion in the stomach.** From the mouth, food passes to the stomach. Here acid and pepsin digest mainly proteins, breaking them down into polypeptides and some amino acids. Starch digestion from the mouth also continues in the stomach, but less intensely.

**Intestinal digestion.** Food then passes to the small intestines, where bile from the liver, pancreatic enzymes, as well as other intestinal secretions, are added to the food bolus. This is where most digestion is supposed to take place. However, most people do not secrete enough liver and pancreatic enzymes, especially if they overeat, as many do. The small intestine, as well as the large intestine or colon, are also home to a myriad of bacteria that assist the digestion process.

**Reasons why the intestinal flora are incorrect or weak include:**

- *Toxins in the food such as food additives and natural toxins.*
- *Improper food, such as too much starch or sugars.*
- *Bacteria in the food that seed the intestines with the incorrect flora.*
- *Low digestive enzyme levels that permit certain bacteria to flourish.*
- *An imbalanced pH of the digestive tract, in particular, and of the body, in general.*
- *Impaired health may reduce the production of many chemicals in the intestinal tract that protect it from invaders.*
- *Antibiotics, and perhaps other drugs as well, kill the normal flora and may damage the liver and other digestive organs as well.*

**The appendix and large intestine.** The appendix is a mystery in modern medical care. It secretes enzymes that help digest meats and other foods that may require digestion in the large intestine. Unfortunately, the appendix often becomes inflamed and filled with bacteria that the body is unable to remove. This negates its positive function in most people.

**The large intestine.** Here the food bolus is dehydrated and the stool forms. Some minerals, vitamins and other nutrients are also absorbed here. Otherwise, the main purpose of this important organ is to make sure that waste products are removed from the body.

**Reasons why the colon is one of the most diseased organs in most adults are:**

- *Drinking too little water and/or the wrong kinds of water.* I recommend adults drink three to four quarts daily of either distilled or spring water. All other types of water are not as good for hydrating the body, in my experience.
- *Fatigue and stress of every kind. All stress tends to affect the digestive system.* The large intestine is particularly sensitive to stress, which tends to slow its activity.
- *Hurried lifestyles and not heeding the call to evacuate.*
- *Refined foods in the diet.* These include white sugar, white flour, white rice and other poor quality, low-fiber, highly processed foods.
- *Chemicals added to many foods, especially refined and prepared food items.*
- *Chronic bacterial, viral, fungal or parasitic infections.* These are extremely common, though most people are unaware of them. The intestinal tract is home to millions of yeasts and bacteria. The flora must be correct. Any deviation I am calling an infection, since that implies an organism that is not supposed to be there. Infections may be due to spoiled or infected food, medical drug use, a weak immune response and other reasons.
• *Medical drugs.* These often damage the delicate intestinal tract. Among the worst for the colon are antibiotics, which can destroy the natural bowel flora. This allows harmful yeasts and other pathological organisms to multiply. Other drugs slow bowel activity or irritate the sensitive mucosa of the small and large intestines. Diuretics can remove too much water from the bowel and cause constipation. Vitamin tablets with iron can irritate the intestines.

• *Other causes.* The large intestine is subject to prolapse, diverticuli, intussusceptions (a situation in some babies), and cancers of the large bowel.

**DIGESTION VERSUS PUTREFACTION, ROTTING AND FERMENTATION**

Good digestion is the most important single process needed for health besides rest and sleep. However, most people have very poor digestion today, even though one may have no symptoms of it at all. Instead, most of their food either rots, putrefies or ferments:

• *Digestion.* This is a process whereby food is acted upon mechanically by chewing and then chemically by acids and enzymes in the intestines. As a result, the food is broken down into simpler chemical compounds. For example, protein is broken into its amino acids. Fats are broken into fatty acids. Starches and sugars are broken down to simple sugars. Proper digestion requires good food, proper eating habits, enough digestive enzymes and other favorable conditions in the intestines.

• *Putrefaction.* This is a chemical process in which mainly proteins from food are changed by certain intestinal bacteria into very toxic chemical substances. Among them are cadaverine, indol and skatol. Toxic gases such as sulfur dioxide are also produced. A little putrefaction is okay, but more is very harmful and toxic for the body. Causes for it include eating too much protein at one time, insufficient chewing, deficiencies of digestive enzymes such as trypsin and chymotrypsin, improper pH of the intestinal tract, and the presence of incorrect flora in the intestinal tract.

• *Rotting.* This is similar to putrefaction. However, it occurs in the absence of putrefying bacteria. This is what happens if you leave an egg or a piece of meat in the open air for a few days. The distinction between rotting and putrefying is not great and the words are often used interchangeably. However, technically they are not the same.

• *Fermentation.* This is a chemical process in which certain yeast organisms change sugars into methane, alcohol, vinegar, acetaldehyde and other very toxic substances. This is extremely common, especially in slow oxidizers. *Candida albicans* is the most common fermenting organism, but many other yeasts may be involved as well. One way to tell if fermentation or putrefaction is occurring in your body is the smell of your stool or intestinal gas. Fermentation smells mild, often like horse manure, for example. Putrefaction produces a more foul-smelling stool.

**ZINC AND DIGESTIVE DISORDERS**

Zinc deficiency is a primary cause of many digestive problems. Reasons for this include:

• *Zinc is needed for digestive enzyme production in the liver, pancreas and elsewhere.*

• *Fast-growing tissues such as the intestines depend heavily upon zinc because it is a co-factor or is required for enzymes such as RNA transferase and others involved in protein synthesis.*
• **Insulin production, secretion and effectiveness depend upon zinc.**
• **The appestat mechanism that regulates hunger depends upon the zinc-copper balance.**
• **The senses of taste and smell, along with all the senses, depend upon zinc and copper.**
• **The health of the autonomic nervous system is heavily dependent upon zinc as well.**

Digestion is a parasympathetic activity that requires a perfectly functioning autonomic nervous system for ideal digestive activity.

As a result, low zinc is associated with irritable bowel syndrome, ulcers, enteritis, colitis, anorexia, bulimia, loss of sense of taste and smell, and many other intestinal disorders.

**Zinc deficient worldwide.** Chapter 15 discusses all the critical reasons why zinc is so low in the population today. Most children are also born deficient in zinc because their mothers’ bodies are very low in zinc.

**HAIR ANALYSIS PATTERNS RELATED TO DIGESTIVE DISORDERS:**

• **Zinc and copper imbalances.** These are discussed in Chapter 15.
• **Phosphorus less than about 13 mg%.** This indicates improper protein synthesis, which often has to do with zinc deficiency, the diet, intestinal infections and/or improper digestion.
• **A sodium/potassium ratio less than about 2.** This can indicate reduced vitality, reduced digestive enzyme production, and low hydrochloric acid in the stomach.
• **Four lows pattern.** This is often associated with digestive weakness, often due to overuse of the sympathetic nervous system and chronic and often severe fatigue.
• **Very slow oxidation.** This is often associated with digestive system weakness, hypoglycemia, cravings for sweets and starches, and constipation.
• **Sympathetic dominance pattern.** The sympathetic nervous system powerfully inhibits proper digestion and elimination.
• **Elevated lead, cadmium, mercury, aluminum, arsenic or other toxic metals.** These metals often impair digestion and elimination.
• **Very fast oxidation.** This is often associated with high levels of gastric acidity and conditions such as gastritis, and possibly ulcers and diarrhea.

**CONSTIPATION**

**Definition.** I will use the following definition of constipation, though some may disagree. Constipation is present whenever:

• **The solid matter of the colon (usually filling at least half of it or about a foot long) does not naturally empty each and every day.** It does not matter if a person has one large bowel movement daily or several smaller ones, as long as the colon empties well – OR,
• **The bowel transit time is greater than about 24 hours.** This means that the time between eating a meal and the passage of its residue from the body is more than 24 hours. This can be tested easily by swallowing about 6 charcoal tablets from the drug store or having a meal of raw or cooked red beets. Note how long it takes for the black color of charcoal or the red color of beets to appear in the stool. Reasons for constipation include:
- Sluggish bile secretion (bile has a laxative effect).
- Poor muscle tone interfering with normal peristalsis.
- Slow oxidation, causing low energy levels and many other problems.
- Low digestive enzymes and/or incorrect intestinal flora.
- Intestinal infections that are very common such as candida albicans and many others.
- Psychological factors such as stress, fear and anxiety.
- Other bowel pathologies such as tumors.
- Temporary constipation occurs at times during nutritional balancing programs as certain toxins or infections are eliminated. Extra GB-3 or magnesium usually handles it easily.

Conquering constipation. The simplest way to overcome most cases of constipation is to drink at least three quarts of warm water or mild teas daily. This method is widely overlooked. Other simple methods include more rest and sleep, more exercise in some cases, deep breathing, or a series of colonic irrigations or coffee enemas to tone the bowel and remove debris from the intestines. Among the various products available to help with constipation, the following are preferable in the order listed below:

1. **Products containing ox bile, black radish and dehydrocholic acid, such as GB-3 by Endomet Labs.** These can relieve constipation and tone the bowel by enhancing bile flow and liver activity. These products also kill harmful bacteria, yeasts and some parasites in the intestines. They can cause diarrhea, at first, for this reason, so begin gently with only one tablet per day and work up to 2 or 3 per meal.

2. **Magnesium supplements help some cases of constipation.** Magnesium increases water in the intestines, which softens the stool. Modern diets are often deficient in magnesium. Magnesium glycinate may not cause the stool to become as loose, probably because it is better absorbed. Preferably use a magnesium oxide, citrate or chelate.

3. **Soluble and insoluble fiber helps a few people.** Eating plenty of steamed vegetables will provide enough fiber, but sometimes more is helpful.

4. **Glycerin suppositories work, but are slightly toxic and do not address causes of constipation.**

5. **Herbal laxatives can be used temporarily.** Many can be habit-forming, however, such as senna leaves and cascara sagrada. These act by irritating the bowel, which is not ideal. However, they are effective when needed. Some other herbs such as slippery elm and others seem to nourish and tone the bowel. Dr. Eck did not use many herbs because of toxic effects and because of their variable quality.

6. **Enemas are a short-term solution, but are not harmful when part of a nutritional balancing program.** Coffee enemas, for example, will eventually tone the bowel if used correctly.

**DIARRHEA**

Diarrhea can be defined as either 1) liquid or very runny stools at any time or 2) a bowel transit time of less than about 8 hours. A simple case of diarrhea that passes within a day or two is usually not a serious concern. It may be due to stress, anxiety, food poisoning, use of some drugs or perhaps an infection. On nutritional balancing programs it occurs at times, usually due to the elimination of a toxic substance from the body.
Diarrhea that persists more than three days can become a serious health condition due to dehydration and loss of nutrients in the liquid stool. Water can be easily replaced. Nutrients lost due to diarrhea take much longer to replenish. Therefore, always take steps to stop any diarrhea that continues for more than two or three days.

**Oxidation types and diarrhea.** Dr. Eck found that fast oxidizers have a greater tendency toward diarrhea than slow oxidizers. Reasons for this are:

- **Generally faster metabolism.**
- **Lower calcium and magnesium levels tend to cause more powerful peristaltic action.**
- **More fats and oils in the diet, along with more active liver function, cause more bile secretion.** Bile tends to be laxative.

**Correction of diarrhea.** A single bout of diarrhea may just be clearing out a bad meal or a toxic condition in the bowel. This requires no treatment in most instances other than rest and drinking extra water. If it continues for more than a day or two, be sure to do the following:

- **Drink a lot more spring or distilled water only.** Reverse osmosis water does not adequately hydrate the body and can cause dehydration in a few cases. Dehydration is a potentially life-threatening condition, especially in babies and young children.

  If possible, do not drink water with meals, as this further impairs digestion by diluting the gastric juices and digestive enzymes. In general, drink an hour or more after meals and up to 10 minutes before a meal. Also, do not substitute juices, coffee or most other beverages.

- **Resting and fasting for a day or two is excellent.** This rests the intestines completely.

- **Eat simply.** Avoid all raw, spicy or irritating foods. Also avoid all food additives, stimulants such as caffeine and others, as these can aggravate diarrhea.

- **Check any recent medications you are using.** Diarrhea could be a side effect of a drug or a drug combination. Drug side effects can begin at any time, even months after you started using the drug. Also check your nutritional supplements, and preferably stop all these while you have diarrhea. Products containing magnesium, bile acids or certain herbs, for example, can cause diarrhea in sensitive people.

- **To kill infections in the intestines, excellent remedies that are safe include a quality colloidal silver, bee propolis, garlic capsules (9/day at 500 mg each) or perhaps grapefruit seed extract.** Follow directions for these products and do not use for more than five days, as a general rule.

- **Other temporary remedies.** Charcoal tablets and bentonite clay in tablets or powder are quite safe in the short term and may reduce diarrhea caused by food poisoning. Herbal remedies and even over-the-counter drugs for diarrhea are usually safe if they are used as directed and taken only occasionally. Coffee enemas or colonic irrigation can also be helpful at times. They work by removing the offending toxin, infection, or other cause of diarrhea.

**Further care for diarrhea.** Diarrhea that continues more than a few days or recurs often requires more attention. A parasitic or other infection may be present. If it does not heal with colloidal silver, for example, one may require a stool analysis or, preferably, a bowel contents analysis to look for parasitic organisms. In most cases, a nutritional balancing program will eventually get rid of most, but perhaps not all parasites. Be sure to seek help if you are not sure how to use a remedy or if diarrhea continues for more than a few days.
WEIGHT LOSS AND WEIGHT GAIN

Most people who follow nutritional balancing programs will obtain a desirable weight very easily. At times, some weight gain or loss occurs during the nutrition program and this, too, balances out eventually. Most weight loss programs are dangerous from the perspective of nutritional balancing. They either starve the body, leading to worse problems later, or they unbalance the body with strange diets, too much exercise and the use of various drugs, herbs and other products that do not address basic causes of weight gain and weight normalization.

The reasons for weight gain are fairly simple, in my experience. I will divide them into four categories. These are 1) too much food, 2) improper diet, 3) emotional reasons or 4) metabolic imbalances such as fast or slow oxidation, or rarely other reasons such as a pituitary tumor. Let us consider each of these in more detail.

1. **Too much food.** Some people eat due to nervousness, or simply out of habit. Others eat to “keep up their strength”, which means that food stimulates them in some way. Others need to eat more because the food they eat is of poor quality and contains few nutrients.

   Ways to eat less include maintaining good, regular eating habits, limiting snacking, keeping only the right foods in the house and avoiding situations where you tend to overeat. Anyone can learn better eating discipline if one wishes. Other hints are to chew thoroughly, substitute a glass of water or tea for food, and going to bed early instead of eating in the evening.

2. **An improper diet.** The most common dietary mistake today is eating too many carbohydrates such as breads, pizza, donuts, rolls, potato chips, pasta, soda pop, milk, French fries, Mexican food, chocolate, cakes and candy. In my experience, if one changes the diet to mainly steamed vegetables with some fresh meats and some whole milk dairy, weight is usually not a problem. Whole milk products are better in most cases than skim or low-fat milks. The fat in the milk fills one up so one eats less of other foods. Fat is not the culprit in most cases of overweight. Other hints are to avoid all wheat products of any kind, and avoid all gluten-containing foods in most cases. These are oats, barley, rye and wheat or spelt. To lose more weight, skip all the grains for a few months.

   Use any gimmicks you wish to stay away from refined carbohydrates, in particular, such as only eating in East Indian, Thai, Chinese and perhaps a few other restaurants that you know serve a variety of vegetable dishes. Avoid Mexican, Italian, and American type restaurants that serve breads, beans, and a lot of starch. Though coffee is not recommended, a cup or two is usually better than soda or milk shakes, for example. Also avoid all artificial sweeteners as they tend to cause weight gain, perhaps by fooling the body into thinking a sweet meal has arrived. This may cause the body to secrete insulin, contributing to fat deposition.

3. **Mental/emotional reasons for weight gain.** Nutritional balancing can help with some of the following interesting causes for weight gain or weight loss:

   - **Mental tension.** This impairs nutrition and often leads to unconscious overeating.
   - **Hiding behind one’s weight.** Some men, as well as many women today may use excess weight to avoid the attentions of the opposite sex or for other psychological reasons.
• **Hidden anger.** Some who are overweight are angry or perhaps fearful underneath. However, emotional imbalances also keep some people very thin. It appears to depend how the person reacts to the emotion, in terms of eating habits and other subtle factors.

• **Temperament.** Some people prefer to sit on the couch and watch television and drink beer. They tend to gain more weight than those who prefer running marathons, for example.

• **Eating for emotional reasons.** Food is an emotional reward for some people, or it may have other meanings in some cases. This can cause many types of eating disorders and cravings.

**SLOW OXIDATION AND WEIGHT GAIN.** Slow oxidizers tend to gain weight lower on the body, causing a tendency for a more pear-shaped body. Reasons for weight gain among slow oxidizers include:

• **Fatigue or depression.** Some eat to “keep up their strength” or to feel better emotionally.

• **Hypoglycemia and diabetes.** Many slow oxidizers have a tendency for chronic low blood sugar due to weak adrenal glands. This results in sweet and other food cravings.

• **Low digestive enzyme production.** This may impair appetite, but also reduces nutrient absorption and thus can cause more hunger for nutrients, a very common situation. This is just one reason why everyone needs a powerful digestive enzyme today.

• **Insulin excess in metabolic syndrome or syndrome X.** Insulin may be elevated in these cases because the body is trying to force more sugar into the cells to increase energy production. A side effect of high insulin is the conversion of sugars into fat.

• **Impaired circulation.** This can make it more difficult to break down fat deposits in the body.

• **Food sensitivities.** These are common and often cause bloating, gas and water retention.

• **Inflammation.** Inflamed tissues swell up with substances the body finds toxic, causing a watery appearance and weight gain. Most of those in slow oxidation have significant inflammation in the body, though they may have few other symptoms. Causes of inflammation in slow oxidizers include copper excess, zinc deficiency, omega-3 fatty acid deficiency, leaky gut syndrome, metal toxicity and possibly other causes.

• **Yin condition of the body.** Yin means expanded. This can express itself as weight gain.

• **Appetite problems.** All slow oxidizers have a degree of copper toxicity and zinc deficiency. This affects the appetite control mechanism of the body in different ways. It may result in anorexia, but it often causes odd cravings and a lack of a consistent appetite control.

• **Water retention due to impaired kidney activity.** This may occur in some who are more ill.

• **Metal and chemical toxicity.** The body can retain some fluid to dilute certain toxins.

• **Healing reactions.** During nutritional balancing programs a few slow oxidizers gain some weight temporarily. Possible reasons are a further slowing of the oxidation rate for various reasons, or it can be the result of toxin elimination from the body.

**FAST OXIDATION AND WEIGHT GAIN.** One might think fast oxidizers would all be thin because they burn their food quickly. However, many are overweight. True fast oxidizers tend to gain weight around the belly and upper body, while the legs and arms may remain more slender. This is the ‘apple-shaped’ body type. The ‘gut’ can become enlarged and the women often have larger breasts. Combinations of both the pear-shaped and apple-shaped body types are also common.
Fast oxidizers can gain weight for some of the same reasons as slow oxidizers, such as the desire to obtain more nutrients, intestinal infections, or food allergies to wheat, beef and perhaps other foods. Other reasons for weight gain in fast oxidizers include:

- **High cortisol and a Cushinoid body type.** Fast oxidizers have more active adrenals, which causes higher levels of cortisol. Their bodies can take on a mild form of Cushing’s syndrome, a disorder of the adrenal glands. High cortisol causes fat deposition mainly in the abdomen and occasionally in the shoulders, where the fat pad is called a ‘buffalo hump’.
- **Metabolic Syndrome or Syndrome X.** This is common in many adult fast oxidizers.
- **Higher insulin.** Fast oxidizers, as a rule, have somewhat higher insulin levels than slow oxidizers. Insulin tends to convert sugars to fat. Overeating on carbohydrates further stimulates insulin production, making the problem worse.
- **Water retention.** Fast oxidizers often have a waterlogged appearance and consistency of the skin. This may be due to high tissue sodium that causes some water retention.
- **Overeating on carbohydrates.** Starches and sugars, in part, break down to water.

**Combinations of fast and slow oxidizer causes for weight gain and weight loss are common.** This occurs due to complex adaptations and compensations to various physical, biochemical and emotional stressors taking place over many years time.

**Losing weight with nutritional balancing.** Gentle rebalancing of the body chemistry with periodic retesting of the hair will unwind the causes of obesity. As this occurs, extra weight generally melts away with little effort. There is no need for special diets, surgeries, medical drugs, bio-identical hormones or other methods that are much less safe and often extremely toxic or harmful in other ways. The only problem with this method is it requires some discipline.

Fast and slow oxidizers can reduce all grains, fruit and fruit juices to a minimum to lose more weight. Fast oxidizers must eat more fats and oils, however, or they will become extremely hungry. Both types should eat mainly steamed vegetables, some meats, eggs, perhaps whole milk dairy that is not pasteurized or homogenized.

Fast oxidizers can have some lamb and beef, though most beef is not as healthful a food today due to hybridization. Other good quality fats and oils include butter, especially raw butter, and cold-pressed hempseed, olive, and flaxseed oils. The tropical oils such as palm and coconut may be eaten once in a while. These, however, are too yin to eat in large quantities. A quality cod liver oil is also excellent, especially for children. Lard is not acceptable, as it may contain parasites even when well cooked.

**Reasons why a lower-carbohydrate diet works well for most fast oxidizers include:**

- **Eating carbohydrates increases insulin secretion, which causes the conversion of sugar to fat.** This is probably the main reason why a lower-carbohydrate diet works so well for them.
- **Quality fats and oils provide calories and help balance a fast oxidation rate.**
- **According to Dr. George Watson, in fast oxidizers the Krebs or carboxylic acid cycle is more efficient in comparison with the glycolysis cycle.** The Krebs cycle is where fats are converted to energy. Hence they may feel better on more fats and fewer carbohydrates.
- **Eating carbohydrates depletes more zinc, which causes one`s sodium level to rise further.** This, in turn, may increase stress and worsen water retention.
Weight loss ideas to avoid. For safety reason, I would strictly avoid heavy exercise regimens, drugs such as amphetamines, surgery for weight loss, and all strange or deficient diets such as vegetarianism, raw foods, vegan diets or diets low in protein and cooked vegetables.

OTHER COMMON DIGESTIVE DISORDERS

Nausea. Many factors can cause this common symptom, from parasitic infections, enzyme deficiencies, constipation or food poisoning to eating too much, a hiatal hernia or even a toxic metal elimination through the liver. Emotional distress is another common cause. Rarer causes are tumors or other intestinal blockages. Removing the cause is the key to alleviating the symptom in most all cases.

Celiac disease or gluten intolerance. This is common and possible in anyone with gas, bloating, unexplained iron deficiency or anemia, failure to thrive, diarrhea, epilepsy, chronic hepatitis, osteopenia, osteoporosis, perhaps weight loss, mild depression and perhaps brain fog or constipation. Less common symptoms may include arthritis, asthma, schizophrenia, psoriasis, loss or early graying of hair, skin diseases, heart disease and blood abnormalities. The causes include stress, nutritional imbalances, and that wheat, in particular, is a very unhealthy food due to hybridization, even the best organic whole wheat in any form at all.

Ways to test for gluten allergy include tissue transglutaminase antibody (TTG) and antiendomysium antibodies. Another alternative is to simply eliminate all gluten-containing foods for at least a week and note how one feels. Many people feel significantly better. Eliminating all gluten for several months, in conjunction with a nutritional balancing program, may allow the intestines to heal enough that one can tolerate some oats, rye or barley.

Anorexia nervosa and bulimia. Anorexia means no appetite, which causes some people to skip meals. In severe cases, this can lead to death. While a distorted body image, for example, can be the main cause, nutritional factors also often play a role in the causation of anorexia and bulimia. Reducing copper, for example, can be extremely helpful to end this serious condition.

Anorexia nervosa usually occurs in young women, aged 11 to about 24. It may occur more in middle and upper class people. The young women feel pressured to look a certain way to be popular and to be accepted by their peers or even their parents. Anorexia nervosa is also a “disease of civilization”. This means it is rarely found in undeveloped nations.

Bulimia, or vomiting up one’s meal after eating, is often part of the anorexia syndrome in young women. It is more severe in that it is a more self-destructive act to throw up one’s good food after eating it. Symptoms that may alert a parent or doctor to anorexia may include:

- Loss of the menstrual period.
- Denial of hunger and/or dieting with relish when not overweight.
- Frequent weighing and/or claiming to feel fat when not overweight.
- Preoccupation with food, grocery shopping and cooking, though will not eat.
- Excessive exercising.
- Abuse of laxatives.
- Leaving the dinner table and going immediately to the bathroom.
- Staying in the bathroom with the shower running for a long time.
• Hiding garbage bags and other containers of vomit.
• Feeling bloated and nauseated after eating small amounts of food.
• Bingeing, followed by dieting or fasting.
• Chewing food, then spitting it out.
• Social isolation or intolerance of oneself and/or others.
• Feelings of insecurity and a distorted body image.
• Feeling spacey or detached from reality.

**Help for anorexia nervosa.** Most young women with this disorder are extremely copper toxic and zinc deficient. This, alone, distorts their appetite mechanism and may affect their thinking as well. Erratic eating habits then further distort their body chemistry. This sets up a vicious cycle whereby zinc becomes more deficient, leading to a reduced appetite and sense of taste and smell, and more copper in the body. This, in turn worsens the anorexia problem. This cycle can end in death unless something is done to break the cycle. Along with counseling and other measures, correcting the nutritional balance can be extremely helpful for these young women, who are often lovely and simply unhappy and confused.

**Gastric esophageal reflux disease or GERD.** This very common disorder of the esophagus and stomach was formerly often called heartburn. It is usually easily remedied without drugs. The drugs used for it unfortunately reduce acid secretion in the stomach. This worsens digestion, even if the drugs relieve the symptoms of GERD. Barrett’s esophagus is a more aggravated version of GERD in which the esophagus becomes extremely irritated. The same healing principles apply to Barrett’s esophagus and it, too, can be helped in almost all cases with a complete nutritional balancing program. In addition to a program, simple, safe ways to correct these common ailments are:

• **Avoid wheat and reduce other grains such as oats, rye, millet and even rice or corn for a time.** This is often helpful. Change to a diet of mainly steamed or lightly cooked vegetables. Also reduce hot spices, acidic foods, juices and fruits, and do not drink liquids with meals.
• **Avoid eating when upset, anxious or in a hurry.** Rest at least five minutes before meals. Sit quietly for meals and chew each bite at least 20 times before swallowing. Remain at the table at least 10 minutes after the meal before getting up. You may also leave the table, but sit quietly or lie down for at least 10 minutes before resuming your activities.
• **Take digestive enzymes such as GB-3 from Endomet Lab before or with the meal, not afterwards.** After the meal it could sit on top of the stomach and cause irritation.
• **For symptoms of heartburn, use aloe vera juice or gel.** A good brand is George’s. You may need this for a time until symptoms clear up.
• **Reduce a hiatal hernia.** This can be done quite easily in most cases by first lying on one’s back with the legs bent and the knees up. Then place three fingers from each hand in the hollow just below the sternum or breast bone. Breathe in deeply. As you begin to exhale, push your fingers into your chest and then move your entire hands down toward your feet, and perhaps a little to the left. Repeat this five times or until you feel a little better. You may have to repeat the exercise a number of times, as this problem can recur, especially if one strains at the stool. Over time, however, it should improve if you are following a complete healing program.
**Intestinal infections or enteritis.** The small and large intestines are extremely prone to infection. Some are the result of tainted foods, especially raw food grown in other nations with lower standards of sanitation. Also, the intestines are a warm, moist environment that favors the growth of most bacteria, fungal and other types of infections.

Nutritional balancing helps greatly to eliminate all intestinal infections. The main methods are to enhance general vitality, improve the diet, reduce consumption of raw foods, and to add digestive enzymes such as GB-3 that can actually digest many parasitic and other harmful microorganisms in the intestines. Coffee enemas and using a near infrared light sauna are also extremely helpful in some cases. Old intestinal infections can flare up as they heal during nutritional balancing.

**Leaky gut syndrome.** The end result of intestinal infections, nutrient deficiencies and defective intestinal flora is often a condition in which peptides and other partially digested food components, along with bacteria, viruses or other foreign matter pass too easily through a damaged intestinal wall and enter the bloodstream. This is called a “leaky gut”. It causes food reactions, general allergies, fatigue, aches and pains, and it overpowers the liver, kidneys and other organs that must remove toxic substances from the body. It also sets the stage for many other intestinal and systemic diseases.

**Causes of leaky gut syndrome.** The most common causes are eating too much or eating the wrong foods. The worst offenders include all sweets and sugars, white flour products and artificial or chemical-laden food. Improper eating habits can also play a role such as eating on the run or not chewing sufficiently. Stress, fatigue, the presence of toxic metals, intestinal infections and nutritional depletion are other important causes. Correction of this conditions and others involving the intestines is not difficult using nutritional balancing, but can take a number of years to complete. The program will also take care of most parasites and other intestinal problems, in time. This is why we rarely need to recommend parasite cleanses with herbs or other somewhat toxic remedies. Such methods, if not needed, will slow one’s progress on a nutritional balancing regimen by introducing slightly toxic metals or chemicals into the body.

**Candida albicans infection.** This is epidemic today, although it is just one of many common intestinal infections. Dr. Eck found that an important cause is a copper imbalance. Copper is one of the body’s primary yeast killing substances. When copper is biounavailable, the body cannot easily get rid of yeasts adequately. Other reasons for the problem include:

- **Sugars in the diet, including fruits, juices and all types of sweets.**
- **In some cases, too many starches, especially potatoes and grains.** These are converted to sugars in the intestines, where they may nourish the yeast organisms.
- **The use of antibiotics, birth control pills, or steroids such as Prednisone, are other important causes, even if one only used them in the past.** Other medical drugs may also be problematic.
- **Low vitality for any reason might affect the body’s level of alkalinity and the copper balance.**
- **Mercury toxicity is thought to be related to infections such as yeasts in some instances.**

**How to correct candida albicans.** Nutritional balancing will correct chronic intestinal candida, along with other infections, usually without a need for specific anti-infection remedies. For best results, definitely avoid all wheat, perhaps all gluten-containing foods, all sugars, most
fruit and all juices. An exception, however, is that 10-12 ounces of carrot or green juice daily are so nutritious that they are worth drinking, if possible, unless one is extremely sugar-sensitive.

If an anti-candida remedy is needed for a short time, natural substances are usually best as they are the least toxic and often work very well. Avoid drugs of all kinds as they are rarely needed. I use GB-3, garlic, caprylic acid, or possibly grapefruit seed extract if the others are not effective enough. Usually, however, no anti-candida remedy is needed, even in stubborn cases, if one balances the body chemistry properly.

Gastritis. This is inflammation and pain in the stomach. Its causes include stress, emotional tension, improper diet or eating habits, fatigue, or rarely a medical drug or other cause. It usually goes away quickly with a nutritional balancing program that includes stress reduction and learning emotional control.

Colitis, Crohn’s disease, and diverticulitis. The large intestine is prone to many common disorders. Most of these clear up quickly with nutritional balancing. Colitis is a general term. Crohn’s disease is a form of colitis that is serious, at times, though it often responds easily to nutritional balancing programs. Diverticulosis and diverticulitis have to do with pockets of infection in the colon that are often slower to heal, as they must be cleaned out slowly as the colon is restored to health. Enemas and colonic irrigation are wonderful for these conditions, just as they are very helpful for almost all bowel and liver disorders.

Irritable bowel syndrome or IBS. This is a very common symptom that often accompanies food intolerances, candida albicans infections and general stress. It usually resolves easily and quickly as the diet and lifestyle are corrected.

Gastric and duodenal ulcers. This digestive disorder is often due to the use of drugs that irritate the stomach. The most common are non-steroidal anti-inflammatory drugs or NSAIDS. Other causes are uncontrolled emotions, general inflammation, improper diet or too many hot spices, for example, low zinc, high copper, improper stomach acid and a few other minor causes.

Post-modern medical care suggests that ulcers are due to a bacterial infection with H. Pylori. However, I believe this is just an opportunist organism that takes advantage of a weakened body. The drugs used for H. Pylori can be worse than the infection. Instead, correcting the causes above usually takes care of the ulcer quickly. A safe symptomatic remedy is aloe vera juice or gel if one needs a quick remedy for a while until complete healing occurs.

Hemorrhoids. Mild cases of hemorrhoids clear up easily with nutritional balancing. Causes of this common condition include:

- Stress, straining at the stool or general weakness of this area.
- Liver congestion can contribute to the backup of blood in the hemorrhoidal veins that go from the rectum area to the liver.
- Imbalances that weaken the veins such as copper toxicity, zinc deficiency or imbalances involving vitamin C, for example.
- Pressure on the veins from a pregnancy or perhaps from a sedentary lifestyle.
When the causes are removed, the problem usually disappears promptly. In very severe cases in which surgery is recommended, I am told that galvanic current treatments work very well with much less trauma to the area. Some doctors are also using a type of laser surgery for this problem that may be better than conventional surgery.

**Cirrhosis of the liver.** Cirrhosis may be due to alcoholism, or rarely is due to other causes such as chronic hepatitis or chemical poisoning. A hair analysis in these cases will often reveal a low zinc level, a lowered sodium/potassium ratio and often elevated levels of toxic metals, especially cadmium, lead or mercury. Cirrhosis can respond excellently to nutritional balancing in most cases, provided the liver is not damaged beyond repair.

**Colic and other problems of babies.** Babies should not have bowel problems when breastfed and when they do not receive vaccines and drugs. However, many babies and young children are born with nutritional imbalances and become colicky, allergic to foods or even severely constipated. Rarely, the cause is an intestinal malformation that must be corrected with surgery. However, far more common are the following problems:

- **Not enough breastfeeding, or problems with the mother’s milk.** Most mothers today are in poor health, according to their hair mineral analyses. Sadly, the milk quality is not good enough for some children.
- **Some babies need more distilled or spring water.** This can even occur in a baby who is breastfeeding. Many mothers are somewhat dehydrated because they do not drink enough water, or they drink a type of water that does not hydrate them well enough. As a result, their milk is not supplying enough water.
- **If a baby is constipated, eliminate all sweets, fruit and juices and try adding a little magnesium or Epsom salts, perhaps, to some water or milk for the baby.** This usually works very quickly. Many mothers are low in magnesium and their milk may be low in it as well.
- **Sugars of any kind, can cause yeast infections in children that can contribute to constipation, colic and many other problems.** Common foods that cause problems are too much fruit, fruit juices and the worst is soda pop or other sweetened foods or drinks.
- **Vaccination.** This practice introduces many toxic substances into the baby, not just the organism being vaccinated against. Please read more about vaccination horrors on my website, [wwwdrlwilson.com](http://wwwdrlwilson.com) and other excellent websites critical of vaccination.
- **Iron in baby formulas.** Most store-bought formula is nutritionally deficient and unbalanced. One of the worst additives is additional iron. It irritates a baby’s delicate digestive system, and can cause internal bleeding and constipation. Most babies are born with a two or three year supply of iron from their mothers. Breast milk contains little to no iron and babies do just fine on it.
- **Drug use, especially antibiotics.** These are often prescribed for ear infections, colds and minor intestinal upset. They damage the normal bowel flora and cause liver toxicity in susceptible babies. Chapter 45 discusses natural remedies for infections.
- **Stress, other infections, tainted food and other causes may also cause colic and other digestive problems in babies and infants.** Babies and infants do extremely well on very mild nutritional balancing programs.
Joe, age 25, complained of relentless fatigue, even after a good night’s sleep. He was also cold most of the time, and his skin was dry with some acne. He craved sweets and salty food, and often felt apathetic and depressed. Constipation had begun to occur as well. He tried taking anti-depressants and other mood-altering drugs with little effect. I explained that he had the classic signs of adrenal exhaustion or ‘burnout’. This involves nutritional depletion of the adrenal glands, and usually nutritional depletion of the entire sympathetic nervous system that controls the adrenals to some degree.

A hair analysis revealed very low levels of sodium and potassium and a low sodium/potassium ratio. Joe also had elevated levels of mercury and aluminum. His test also indicated hidden copper toxicity. This may have caused some of his emotional and other symptoms. On a complete nutritional balancing program, improvement was slow for the first four months. One reason is that Joe did not want to give up his exercise workouts several afternoons a week. I convinced him to wait until his adrenal glands were stronger before doing more exercise. Otherwise, it is like trying to walk on a broken leg before it heals. Stopping the vigorous exercise program allowed Joe to rest much more. His fatigue and other symptoms began to improve quickly. Within a year he felt better than he had felt for the past several years.

**BASIC HORMONE EVALUATION**

Assessing and balancing the endocrine system of the body is a complex task, consisting of more than just correcting the levels of the circulating hormones. To explore this more fully, let us review the basic steps required for hormones to act on the body tissues. They include:

- **Adequate hormone quality.** The strength or quality of the hormones must be adequate. Nutrient deficiencies, mainly, can impair the quality of the hormones the body produces. This is not discussed much in medical care, but I believe it is a factor in hormone problems.
- **Adequate hormone secretion.** The hormones must then be secreted in sufficient quantity. This is what most serum, urine and saliva tests measure.
- **Hormone activation.** Some hormones must be altered or converted to a different form to become more active in the body. For example, thyroid hormone (T4) is converted to T3, a more active form.
- **Adequate absorption into the cells.** The hormones must be absorbed from the blood into the cells. Faulty cell permeability, either too low or excessively high, can affect this step.
• **Adequate cellular effects or activity.** Once inside the body cells, the hormone must do its job correctly. A deficiency of a key nutrient or the presence of toxins, for example, can prevent this from occurring.

• **Correct feedback to tell the glands how the hormone is acting at a cellular level.** This is another critical link in the chain of events that is needed to keep the hormones balanced. This link is often disturbed when practitioners prescribe hormone replacement therapies.

• **Subtle factors such as stress, fatigue, emotional imbalances and even one’s posture may affect the hormone balance in the body.** For example, extreme neck tension, which occurs in some people, can impact the thyroid gland by interfering with its nerve supply.

**Possible hormone problems include:**

• **The quality of the hormones produced is defective.** For example, this might occur in the thyroid when toxic mercury, fluoride, chlorides, bromides or copper are present in excess.

• **The quality is okay, but not enough hormone is secreted.**

• **Enough high quality hormones are produced and secreted, but they are not activated or metabolized properly before they reach the cells.** For example, female hormones such as progesterone may be transformed into too much testosterone.

• **Enough high quality hormones are produced, secreted, and metabolized properly.** However, problems with cell permeability impair their absorption into the cells. Alternatively, the cells may be too permeable, so that hormone uptake into the cells is too rapid. This may occur in fast oxidation, for example.

• **The correct amount of high-quality hormones reach the cells, but something interferes with their utilization or activity within the cells.** A common example is insulin resistance. In this situation, the body secretes plenty of insulin, but the intended result on the blood sugar level does not occur. This may be due to a chromium or perhaps a manganese deficiency. Alternatively, the hormones could have an exaggerated cellular effect due to some type of biochemical imbalance in the cells.

• **The proper quality and quantity of hormones are secreted, absorbed into the cells, and utilized within each cell.** However, a problem occurs with the feedback system that is supposed to inform the thyroid or adrenal glands, for example, how much more of each hormone to continue making and secreting.

Needless to say, hormone regulation is extremely complex. For this reason, nutritional balancing programs always seek to uncover and remove all the nutritional and other imbalances that can cause hormone dysregulation at every step of the process above. Dr. Eck learned that by measuring the final step in hormone activity, *the cellular response*, hair testing offers a unique tool for endocrine evaluation. All the steps are important, but the final cellular response to a hormone is clinically the most important. In other words, the most important aspect of hormones is whether they are balancing the body correctly, not the circulating hormone levels or even TSH, FSH or other pituitary hormone levels. A hair analysis is one of the few ways to measure this aspect of hormonal regulation.

**Problems with bio-identical hormone therapy.** Dr. Eck did not like hormone replacement therapy. It is very rarely needed if one balances the body chemistry. Serious problems with most hormone replacement therapies include:
• **Toxicity.** All hormones are slightly toxic. For example, a recent article by Jonathan Wright, MD, ND pointed out that replacement testosterone can be converted to estrogens in the body. This does not sound safe at all. Many doctors who prescribe hormones are unaware of the dangers of hormone therapy.

• **An unnatural therapy.** Unlike minerals and vitamins, hormones are not designed to be taken in from outside the body. Their levels vary moment to moment. This cannot be easily duplicated with replacement hormones. It does not matter if the hormones are “natural” or bio-identical.

• **Unbalances the body and wastes time.** Remineralizing, detoxifying and restoring a person’s body needs to begin immediately and takes a few years, at least. Hormone replacement might revive a dying person, but in most other cases it just upsets the body chemistry even more and retards deeper healing.

• **Costly.** Hormone testing is at least a few hundred dollars for each test. Yet hormones must be monitored frequently. Otherwise the therapy is even more dangerous.

• **A more superficial therapy.** ‘Balancing the hormones’ is difficult, and, in fact, impossible in a body filled with toxic metals and deficient in dozens of nutrients. It is just a palliative or symptomatic therapy, not a totally functional one.

The only times Dr. Eck suggested natural hormone replacement were:

• *If the hormone-secreting gland has been almost totally destroyed.*

• *If symptoms are extreme.* In these cases, which are very rare, replacement hormones should ideally be used only for a short time until deeper correction can be made. Most symptoms, however, such as hot flashes, PMS, hypothyroidism and adrenal exhaustion can be handled with diet and nutrient therapy until deeper correction can be made.

• *A few people over the age of 65 or 70 are too ill or debilitated to respond well to a nutritional balancing program.* In these cases, hormones will help them, particularly thyroid hormones and testosterone, in my experience. However, one never knows if a person can respond to nutritional balancing until it is tried first.

**Why hair tests may not confirm serum, urine and saliva hormone evaluations.** Most endocrine tests only measure the levels of circulating hormones. A few tests, such as ACTH and TSH, measure feedback from the pituitary. A hair mineral test tends to assess the cellular effect or cellular response to hormone activity. This is why hair readings may not agree with serum, urine or saliva hormone tests. Understanding this deeply will avoid a great deal of confusion. It can also help a practitioner understand problems that occur with traditional medical endocrine assessment and hormone therapies.

**Confusing situations in which a hair test does not agree with other hormone level evaluations.** Hormone evaluation using hair mineral analysis is a complex area that is beyond the scope of this book. However, thyroid evaluation is such an important one to learn about that the following chapter is devoted to it. The chapter following is devoted to blood sugar regulation, insulin and diabetes. Other hormone-related topics may be discussed in articles available at [www.drlwilson.com](http://www.drlwilson.com).
ADRENAL GLANDULAR ASSESSMENT

This is one of the most important sections of this book. The adrenal glands were one of Dr. Eck’s primary areas of emphasis. I remember wondering, at first, why he paid so much attention to these two small glands that sit on top of the kidneys. Post-modern medical care hardly mentions them except for rare adrenal tumors and Addison’s disease, another rare condition that I have never seen in almost 30 years of active nutritional practice. Dr. Eck taught the truth, however, that the condition of the adrenal glands is the single most important clue to understanding the stress response system of the body.

Functions of the adrenal glands. The adrenals secrete at least a dozen hormones including adrenalin or epinephrine, noradrenaline or norepinephrine, DHEA, pregnelone, progesterone, estrone, estriol, estradiol, cortisol, cortisone, corticosterone, testosterone and others that may not have even been discovered yet. The adrenals also help regulate many systems of the body such as blood sugar, blood salts, blood pressure and the autonomic nervous system.

ADRENAL INDICATORS ON A HAIR MINERAL ANALYSIS

A properly performed and correctly interpreted hair analysis can indicate many things about the condition and performance of a person’s adrenal glands:

- The sodium level = adrenal strength. A good level is between about 20 and 40. When the level is low, adrenal effect at a cellular level is reduced. When the sodium level is elevated, adrenal activity or effect tends to be excessive. However, on early hair analyses, toxic metals or other factors can elevate the reading falsely. A number of retests during a nutritional balancing program may be necessary to remove these toxins and produce a more accurate assessment of adrenal glandular activity.

- The sodium/potassium ratio = adrenal potential, charge or direction. A good ratio is about 2 to 7. Dr. Eck, felt that a ratio below 2.5 indicates adrenal weakness and exhaustion. A ratio greater than 6 or 7 indicates acute stress on the adrenals and often an alarm response in progress.

- The sodium/magnesium ratio = adrenal strength, joy and an aspect of the oxidation rate. Dr. Eck called this the adrenal ratio. An ideal ratio is about 4.17. A higher ratio is associated with excessive adrenal activity at a cellular level, while a low ratio is associated with adrenal weakness and adrenal burnout.

- The oxidation rate = sympathetic/parasympathetic balance and the stage of stress. A faster oxidation is associated with increased adrenal effect at the cellular level. A sluggish oxidation rate is associated with reduced cellular adrenal effect.

- Double high ratio or double low ratio patterns = more extreme adrenal stress. These patterns are present when both the sodium/potassium and the calcium/magnesium ratios are either high or low. These are more extreme stress patterns. Double high is more acute, while double low is a very chronic adrenal stress pattern.

- Four highs = a second wind. When calcium, magnesium, sodium and potassium are elevated, it indicates a secondary adrenal stress reaction, also called a secondary alarm reaction. This is a very high stress level, in most cases, that is like a “second wind”. It may be due to the presence of toxic metals, nutrient deficiencies or perhaps due to lifestyle or other stress. I
believe one can have several layers of these secondary alarm responses, in some cases, and they all need to be resolved for deep healing of the adrenal glands.

- **Sympathetic dominance = lifestyle stress.** This indicates a lifestyle or personality tendency to overuse the adrenal glands when they are, in fact, exhausted. A person with this pattern tends to keep himself in a fight-or-flight situation when he should be resting more. This pattern requires changes in one’s attitudes and lifestyle in most cases in order to rest and rebuild the adrenals, along with the rest of the body.

- **Four lows = spinning one’s wheels.** A person with this pattern is also overusing the adrenals. However, the situation is worse than the other patterns and more like spinning one’s wheels in a ditch and getting nowhere. Dr. Eck eventually figured out how to resolve this pattern, in most cases, by “forcing the adrenals to rest” with certain supplements. Oddly, the worst thing to do when a person is in this pattern is to support the adrenals with vitamins, minerals, hormones or anything else other than loads of rest and a healthful diet and lifestyle.

- **Combinations of the above tell us even more about adrenal activity.**

- **Cortisol reversal.** Sympathetic dominance, four lows or perhaps others of the more extreme adrenal imbalance patterns may indicate cortisol reversal. This is when the cortisol level is low in the morning and increases as the day goes on, peaking at midnight in many cases. This is the opposite of the ideal adrenal secretion pattern. It indicates an autonomic imbalance.

**RATIONALE FOR THE ABOVE INDICATORS**

- **Sodium is associated with mineralocorticoid secretion.** All four adrenal indicators listed above involve sodium, which is regulated primarily by aldosterone, an adrenal hormone. The word mineralocorticoid just means that aldosterone regulates minerals. Greater adrenal effect tends to cause higher tissue sodium levels.

- **Potassium associated more with glucocorticoid secretion.** Potassium in the hair provides a very rough indication of glucocorticoid hormone effect. Cortisol, corticosterone and cortisone are the main glucocorticoid hormones. Glucocorticoids cause the conversion of glycogen, fatty acids and amino acids to glucose, which raises the blood glucose level. Glucocorticoids have many other functions as well, such as reducing inflammation. Hair must not be washed at the laboratory to obtain valid sodium and potassium readings.

- **Inflammatory hormones, adrenaline and noradrenaline, are secreted in the earliest stages of a stress reaction.** They act fast and cause most of the alarm reaction. Once they have done their job, they are removed from the blood quickly, as they are quite toxic.

- **Aldosterone is a medium stage stress hormone that is also pro-inflammatory.** It, too, promotes an alarm reaction, but not nearly as intensely as does adrenaline.

- **Cortisol, cortisone and corticosterone are later stage, anti-inflammatory adrenal hormones.** In the exhaustion stage of stress, the body is already quite inflamed due to the presence of toxic substances and a deficiency of the anti-inflammatory minerals such as calcium, magnesium and zinc. To cope with stress at this late stage, cortisol reduces inflammation, but at the expense of the general state of health. This is why steroid drugs, which contain synthetic cortisone, are among the most toxic of all medical drugs. They reduce inflammation in an attempt to stave off death, but have potent side effects, such as causing the disintegration of the bones and weakening all the tissues of the body.

- **The sodium/potassium ratio roughly measures the relationship between the pro-inflammatory and anti-inflammatory hormones or between aldosterone and cortisol.** A high sodium/-
potassium ratio is associated with more inflammation. A low ratio is associated with less inflammation, as well as more tissue breakdown due, in part, to excess cortisol. A low ratio is also a state of electrical discharge and some failure of the sodium pump mechanism that maintains the cell’s electro-chemical potential.

- The sodium/magnesium ratio is an overall adrenal stress indicator. Dr. Eck found that ratios of antagonistic minerals often give a truer picture of glandular activity than just a single mineral reading.

OTHER ADRENAL PARAMETERS

The following concepts may seem rather esoteric. However, they provide even more insight into how a person’s adrenals are functioning:

- **Cell permeability to adrenal and other hormones, in general.** This is most closely associated with the oxidation rate. A faster rate indicates greater cell permeability. A sluggish oxidation rate is associated with reduced cell permeability.
- **Glandular strength.** This is most closely associated with the sodium level. A higher level indicates better adrenal strength, while a low level indicates weak adrenal strength.
- **Glandular reserves.** Sympathetic dominance pattern or a very slow oxidation rate indicate low adrenal reserves. Also, some fast oxidizers may have low adrenal reserves, according to Dr. Eck, because they are functioning at peak adrenal capacity much of the time.
- **Glandular responsiveness.** This has to do with how quickly and effectively the adrenals can respond to stress. It is somewhat different than the other measures and more associated with the sodium/potassium ratio and perhaps the sodium/magnesium ratio.
- **The coordination between the adrenals and the rest of the body and mind.** This may be impaired if a four lows pattern is present, and also possibly with a four highs pattern or a very fast or very slow oxidation rate.

**A problem with hair mineral testing.** At times, a hair test will not accurately reveal all the adrenal stress indicators above. The reason for this is that more superficial layers of adaptations and compensations must first be cleared in order to reveal underlying adrenal exhaustion or other patterns related to the adrenal glands. This can require several or even many hair analysis retests, even when a person is following a nutritional balancing program. Adrenal gland indicators on hair tests are discussed in more detail in Chapters 22 and 43.

ADRENAL EXHAUSTION OR “BURNOUT”

Adrenal exhaustion or burnout was a favorite topic of Dr. Eck’s. It is extremely common, even among children today. Some doctors call it adrenal insufficiency, adrenal hypofunction, adrenal underactivity, adrenal shutdown or just burnout. All these terms are used interchangeably in this text.

**Symptoms of adrenal burnout.** These include unrelenting fatigue and often low blood pressure, low blood sugar, sweet cravings, aches and pains and perhaps recurrent or chronic infections. Emotional symptoms are often prominent and include apathy, depression, despair, low self-esteem, irritability, compulsiveness, and often negative thoughts and sometimes hopelessness.
**Addison’s disease.** Adrenal problems may be mild to extreme. The most extreme cases are diagnosed as *Addison’s disease*, which is described as total adrenal failure that requires cortisone therapy. I have never seen a case of Addison’s disease, so I don’t know how different it is from severe adrenal burnout. I suspect it is similar in all ways to adrenal exhaustion and that it might respond well to nutritional balancing programs. One must be careful not to use the term Addison’s disease loosely, however, as it can frighten clients into taking hormones and thinking they will never be well again.

**A physical, not a psychological condition.** When most people go to the doctor complaining of fatigue and depression, most leave with a prescription for an anti-depressant. This only gets in the way of healing the adrenals at the deepest level because it adds more toxins to the body and does not address the real causes of adrenal imbalances, which are mainly nutritional, structural and, at times, related to one’s attitudes and emotions. In fact, nutritional balancing will correct adrenal exhaustion fully in almost all cases, though time is required to rebuild the nervous system and the body chemistry.

**Fatigue versus burnout.** Burnout is a deeper derangement of the body’s energy system than fatigue. Fatigue goes away with a short vacation and a lot of rest. Burnout will not go away by taking a vacation, though symptoms might improve temporarily.

**Living on stimulation.** Those with adrenal burnout often end up needing stimulants to function at all. Some use coffee or sugar. Others stay angry and use their own rage to function because they have little real energy. Others stimulate themselves with loud music, medical or other drugs, pornography, excessive sexual activity, worry, scary movies or focusing on the news to stimulate the adrenals into activity. Otherwise they would just feel like sleeping all day.

**Adrenal exhaustion affects all aspects of life.** It affects schoolwork, family issues, relationships, job performance, one’s intelligence, awareness and more. Adrenal exhaustion is also an early stage of disease that often leads to all the more serious diseases of our time such as diabetes, especially, but also heart disease, cancer, arthritis, depression and most others.

**Burnout patterns on a hair analysis.** Hair analysis is very helpful to assess adrenal exhaustion. Almost a dozen hair mineral patterns may relate to burnout. Sometimes a person has a double burnout, triple burnout or even a quadruple burnout hair test, based on how many of the following patterns are present on a hair test:

1. Low sodium and/or potassium level.
2. Low sodium/potassium ratio.
3. Slow oxidation rate.
4. Very high calcium level.
5. Low phosphorus level.
6. Double low ratio pattern.
7. Four lows pattern.
8. Four highs pattern.
9. Step up or step down pattern.

**Correction notes for adrenal burnout.** While this book does not focus much on correction, the following are very important to keep in mind for full correction of adrenal burnout:

- **The need for minerals.** Most people with adrenal burnout need supplementary kelp and sea salt. Also, they may need a product from Endomet Laboratoratories called Veg-Easy. These are dried vegetables in a capsule. One could use a ‘green superfood’ powder, instead. However, these often become rancid or lose their potency, which happens less with capsules.
• Avoid all vigorous exercise. For the fastest progress, limit vigorous exercise and all physical and even mental exertion.

• Avoid fasting, all bio-identical hormone therapy, cleansing diets, most herbs and all medical drugs, as much as possible. These may all provide temporary relief, but eventually slow or stop progress altogether. This has been our experience working with thousands of people.

• The need for saunas and coffee enemas. These are often essential for full recovery. There is simply too much toxicity to overcome if one does not do these simple home therapies on a daily basis. They are not particularly time consuming and well worth the time and effort they require.

• Other testing. While it may sound odd, I find that other tests for hormones, adrenal stress, vitamins, amino acids and many other factors are not usually needed. The most important other tests that are sometimes needed in very complicated cases are food allergy testing and/or stool testing for various parasites and intestinal infections. These can really hinder progress in a few cases, though not usually if a person does the nutritional balancing program correctly and eats well.

• Other therapies. The most important adjunctive therapy, in my experience, is chiropractic manipulation, which is essential in some cases. Others that may be excellent are foot reflexology, bodywork such as Rolfing, emotional release therapies, meditation with the Roy Masters exercise and perhaps other balancing and relaxing therapies.

The blessing of burnout. Many people become quite upset to learn they have adrenal exhaustion. However, it can be a great blessing that helps one transition quickly from a more superficial, stressful and frantic ‘go-go’ life to a calmer, and eventually much more satisfying one. Adrenal burnout may therefore be viewed as a very positive lifestyle transition condition.

THE ADRENALS AND THE KIDNEYS – A CLOSE RELATIONSHIP

The adrenal glands and the kidneys are located next to each other in the body. In Chinese medicine, they are also associated together, but not in Western medicine. This is a research topic that could yield valuable insights into adrenal and kidney problems. Both organs:

• Secrete hormones. Kidney hormones include erythropoietin (EPO), calcitriol (1,25[OH]2 Vitamin D3), rennin, angiotensin, prostaglandins and kininogen.

• Are affected by stress and by emotional imbalances such as fear and worry.

• Regulate fluid and water balance, and blood sugar.
28.

THYROID GLAND ASSESSMENT

Paula, age 38, is a nurse who eats fairly well, but works long hours. She suffered from muscle pain, sweet cravings, irritability before meals, heart palpitations, skipped heart beats, poor circulation, post-nasal drip, terrible and unrelenting fatigue, cold extremities, frequent urination and worst of all, premenstrual syndrome. Before her period she became irritable, paranoid, anxious and depressed. Her mind would race and she would develop brain fog, obsessive/compulsive tendencies, panic attacks and had trouble sleeping. Paula’s first hair analysis revealed:

• A very slow oxidation rate with a calcium level of 197 mg%. This is a calcium shell pattern seen in very sensitive and often spiritually-oriented individuals, most of whom are women.
• Excellent sodium/potassium and calcium/magnesium ratios.
• An aluminum level of 1.35 mg%, about 10 times the ideal level.
• Copper was normal as is common, but Paula’s high hair calcium level indicated hidden copper toxicity. Copper imbalance is usually involved in premenstrual syndrome.

Three months later, Paula wrote “It’s incredible to have some energy again”. Most of her symptoms were noticeably improved. She still has some premenstrual discomfort and some muscle pain, but much less than before. Paula’s first retest indicated a calcium level of 650 mg% and a magnesium level of 95 mg%. Meanwhile, her sodium and potassium levels decreased. This means her oxidation rate slowed greatly. It is unusual for a person to feel a lot more energy when the oxidation rate slows so dramatically. Possible reasons for this are:

• “Slow on crutches”. This means that the initial hair analysis was skewed by the presence of toxic metals or even chemicals in the body that was making it look better than it really was, and also making Paula ill. Removing the crutches caused her oxidation rate to slow down dramatically, but she is actually healthier than before.
• An elimination of some biounavailable or so-called ‘metastatic’ calcium and magnesium through the hair raised the calcium and magnesium levels on the second test.
• More emotional stability. It is possible that Paula’s much higher calcium level afforded her a more secure psychological environment that is needed by some people, at least until their health improves sufficiently that this type of protection is no longer required.

Case #2. Robert, age 66, was a neighbor. He consulted me because he kept up a busy lawn maintenance business, but was exhausted. His first hair analysis indicated a fast oxidation
rate and very high levels of lead and cadmium. This was probably due to smoking, and perhaps from working on a farm earlier in his life. Farmers are often exposed to toxic metals while maintaining farm machinery and from handling feeds and pesticides. Many seeds, for example, are treated with mercury to kill mold and fungus.

I warned Robert that his nutritional balancing program would, at first, reduce his oxidation rate and he might feel more tired as a result. This was needed to balance his oxidation rate and improve his energy efficiency, which would powerfully assist to remove his toxic metals. This is similar to slowing down one’s rate of pedaling a bicycle when pedaling too fast. It may seem more relaxed, but it generates more energy because energy is used more efficiently. It is also analogous to shifting the gears of a car so that the motor is not racing too fast, but is operating at its optimum RPMs or horsepower. It may seem like there is less activity because the motor makes less noise, but it actually runs more efficiently in the right gear, at the right RPM.

On his first retest, Robert began to eliminate some of his lead and cadmium. He was still a fast oxidizer, however, so I had him continue with a similar nutritional balancing supplement program. A few weeks later, Robert stopped by to say he was quitting the program. His words were “Don’t slow me down. I don’t like it”. Instead, he went to another doctor who tested his thyroid hormones. They were low, so the doctor prescribed a natural thyroid hormone replacement. **Fast oxidizers can have low serum hormones because of excessively permeable cell membranes that cause the hormones to be taken up by the cells rather quickly.**

I warned Robert that taking thyroid hormones would further enhance his already excessive oxidation rate and would throw his body dangerously out of balance. However, he had more energy on the hormones, so he continued to take them. A year later, I ran into Robert’s wife. She informed me that Robert had recently developed kidney cancer and died quickly. **In my experience, this can easily happen when one unbalances the body chemistry.**

The ability to accurately evaluate the **cellular response or cellular effect** of the thyroid gland is one of the most important benefits of nutritional balancing science. A properly performed test also offers many clues as to the cause of most common thyroid ailments.

**Thyroid anatomy and physiology.** The thyroid gland sits in the front of the throat and is shaped like a large butterfly. The main hormone produced in the thyroid gland is called tetraiodothyronine, T4 or thyroxine. This hormone requires manganese, iodine, selenium and other vitamins and minerals for its production. Deficiencies of any of these, or their replacement by toxic metals such as copper or mercury, may impair thyroid hormone production.

After thyroxine or T4 is secreted, it circulates in the blood. The liver and other sites convert some of it to a far more active hormone called triiodothyroine or T3. The conversion process also requires many nutrients, especially selenium. Defects in the conversion process may also cause thyroid difficulties.

T3 and T4 must be absorbed into the cells and utilized there. This depends on the correct level of cell permeability, an aspect of body chemistry involving the oxidation rate, factors such as omega-3 fatty acids, and others as well. Another hormone called reverse T3 will sometimes rise too high, interfering with the activity of T3. According to some excellent doctors, this is simple to remedy by reducing the level of toxic metals in the body such as mercury.

**Parathyroid hormones.** In the same area as the thyroid gland are the parathyroid glands. These are small and produce parathyroid hormone or PTH, and perhaps other hormones as well. The action of parathyroid hormone tends to be opposite of that of the thyroid hormone.
Functions of the thyroid gland. The major function is to speed up the metabolic rate. The thyroid is activated by the sympathetic nervous system, especially during times of stress. Its hormones help prepare the body to fight or run away. It is thus a critical part of the stress response system of the body, along with the adrenal glands. Dr. Eck used to say the adrenals supply the fuel for the engine (by raising the blood sugar). The thyroid provides the spark to ignite the fuel. Both are needed in the right amounts to produce abundant vitality in the body.

Esoteric or psychological role of the thyroid gland. The thyroid gland is associated with the quality of will or effort. It is most closely associated with the fifth chakra or energy center of the body, which happens to be located right where the thyroid gland is also found. Imbalances related to the will, or expressing oneself, are possible emotionally-related causes of thyroid disease. For example, women suffer from much more thyroid problems than men. One reason may be that women’s self-expression is more often suppressed in childhood. Very willful people also often develop thyroid abnormalities.

THYROID ASSESSMENT

Most doctors assess the thyroid using serum hormone levels, and perhaps antibody tests or other tests, on occasion. However, just assessing serum hormone levels is inadequate because this does not tend to address:

- How well the hormones pass from the blood into the cells. This depends on the integrity and permeability of the cell membranes. Slow oxidizers, for example, often have reduced cell permeability, while many fast oxidizers have excessive cell permeability.
- How powerfully the hormones act on the cells, once they enter the cells. The mitochondria, for example, are our cellular energy factories. They require many nutrients. If even one of these is deficient or if toxic metals are excessive, thyroid hormones may not be able to do their job of increasing the metabolic rate at the cellular level.

Dr. Barnes’ improvement. The problems above led Dr. Broda Barnes, MD and others to use body temperature testing instead of, or in addition to, hormone testing for thyroid evaluation. Testing the temperature is often more accurate. However, this test is still general because many factors can affect body temperature. They include fatigue, poor circulation, some illnesses and sluggish adrenal activity. A good use of the test is in young children. They should be in fast oxidation and should have a higher body temperature. Other than in these cases, I do not consider the temperature test a reliable enough measure of thyroid gland activity.

HAIR ANALYSIS ASSESSMENT

Dr. Eck evaluated many ways to assess thyroid activity with a hair analysis. He eventually decided upon the calcium/potassium ratio. This, however, is a cellular effect or cellular response to thyroid hormone. It is quite different from serum hormone testing because it is a measure of the end result of the hormones activity upon the cells. For example, if circulating thyroid hormones cannot enter the cells very well, they will have a reduced cellular effect, even if the level of the serum hormones is perfect. The reasons Dr. Eck chose the calcium/potassium ratio for thyroid assessment are:
The thyroid regulates calcium. A well-known effect of thyroid hormones is to reduce the calcium level in the blood, and eventually in the tissues. Other factors also influence the calcium level, but thyroid hormone activity is one of the most important ones. An elevated hair calcium level is associated with a sluggish thyroid cellular effect. A low hair calcium level is associated with an excessive thyroid cellular effect. For instance, classic symptoms of hyperthyroidism include tetany or muscle spasms, muscle tightness and muscle cramps. These are due to a low serum calcium level.

Potassium may sensitize the tissues to thyroid hormone. Dr. Eck discussed this, though I do not have a reference for it. It means a low hair potassium is associated with a diminished thyroid effect, while an elevated hair potassium may be associated with an excessive thyroid effect. Combining the calcium and potassium levels provides the rationale for using the calcium/potassium ratio as the main indicator of thyroid effect or thyroid response.

Dr. Eck decided on an ideal calcium/potassium ratio in an adult of about 4:1. A ratio greater than 4:1 is associated with a reduced thyroid effect at the cellular level. A ratio less than 4:1 is associated with an excessive thyroid effect. To obtain valid calcium, sodium and potassium readings, hair must not be washed at the laboratory. In my experience, symptoms of low or excessive thyroid-related activity often match the calcium/potassium ratio well. It is often as accurate a predictor or more so of thyroid symptoms than serum hormone levels or the temperature test.

However, hair testing is also imperfect. At times, the calcium/potassium ratio is normal when thyroid symptoms are present. This occurs because hair analysis measures the entire body as a whole system. It is not specifically a “thyroid test”. So it reflects aberrations in the whole body system better than it reflects any specific organ or gland.

More specifically, early hair tests are often influenced by layers of adaptations or compensations that distort the hair mineral levels and ratios. When one is on a nutritional balancing program, months or perhaps longer may be needed to remove these adaptations in order to obtain a more accurate thyroid assessment. This can be viewed as a disadvantage of hair mineral testing. However, it is usually not a problem because nutritional balancing science is not really about thyroid or any other glandular testing.

It is concerned first and foremost with strengthening and rebalancing the entire body. This can be done, even if the thyroid aspect is not absolutely accurate. This is a critical notion, in fact, that with nutritional balancing one never focuses on the thyroid gland, or any other gland, for that matter. Instead, one always focuses on the overall balance of the body. When this approach is used, all the glands slowly move back toward balance, even if it takes a year or more to accomplish. This book is divided into chapters on the thyroid, the adrenals and other body systems for convenience, but the focus must always be on balancing the entire body chemistry.

CAUSES FOR THYROID IMBALANCES

Low available manganese, iodine and selenium. For example, selenium is required for two steps in thyroid hormone utilization. It is involved in the deiodination reaction in the thyroid and in the conversion of T4 to T3 in the tissues.

High levels of toxic metals, especially copper, mercury and the iodine antagonists.

Stress. This upsets the autonomic nervous system, of which the thyroid is an important part.

Inhibited expression. This can affect the fifth chakra located in the area of the thyroid glands.
• *Impaired cell permeability.* This can inhibit the passage of thyroid hormones into the cells.
• *Tension in the neck may be a factor in some cases.*
• *Pituitary imbalances.* The pituitary gland produces thyroid-stimulating hormone or TSH. Most of the factors above can damage the pituitary gland as well as the thyroid gland.

**HYPOTHYROIDISM**

Hair analysis is excellent for identifying low thyroid effect or a reduced cellular response to thyroid hormone. The hair test is often a far more sensitive test than serum or other hormone tests. This means it will detect subtle thyroid imbalances, and, at times, much sooner than other assessments. The hair test also offers clues as to the cause. Nutritional balancing often works excellently to correct low thyroid conditions, including Hashimoto’s disease and other variants.

**Correction notes.** In addition to a complete nutritional balancing program, adding extra kelp may be essential. It is a source of many trace minerals, but particularly iodine. Iodine antagonists in the environment have caused widespread iodine deficiencies, even in those who consume traditional sources of iodine. However, I prefer not to supplement with pure iodine products as I believe they are less safe and less natural than kelp, a natural food. I add several 600 mg capsules to all slow oxidizer programs. If it makes a person jittery, then reduce the amount. Kelp not only provides iodine, but greatly speeds the remineralization of the entire body. Chapter 4 discusses kelp in detail. Do not use other sea vegetables or fish, however, as sources of iodine. They are all toxic with mercury. Kelp is also higher in mercury, but contains more alginites and other chemicals that bind toxic metals in the intestines and remove them.

**Thyroid hormone replacement.** I have never recommended thyroid replacement hormones, even in severe cases of hypothyroidism, of which I have had many. The hormones do not appear to be needed in most cases, and can definitely slow or even stop progress on a nutritional balancing program. They are dangerous if one is in fast oxidation as they further imbalance the oxidation rate and general body chemistry. The only situations in which I find that natural thyroid hormone replacement is needed are if the thyroid had been surgically or otherwise destroyed, or if one cannot follow a nutritional balancing program for some reason.

**Myxedema.** This is just a severe form of hypothyroidism. It shares the symptoms of simple hypothyroidism, plus one develops a doughy appearance of the skin, usually with significant weight gain and a general thickening of the facial features. This disorder is common today, especially in America, where iodine antagonists and poor quality diets cause many cases. Taking thyroid hormones helps a little, but is not enough to repair the thyroid and heal the condition fully. Nutritional balancing is a far more comprehensive approach to this disfiguring and depressing condition.

**Hypothyroidism in fast oxidation.** This situation is dangerous and deserves much more attention. Now and then, a person with a fast oxidation rate on a hair test has all the symptoms of hypothyroidism such as fatigue, weight gain, dry skin and hair, and low levels of T3 and T4. Doctors usually prescribe thyroid hormone replacement. Some symptoms improve, but the person’s health may become much worse, including the development of cancer and other serious conditions. Possible reasons for low serum hormones in these cases are:

• *Increased cell permeability.* Thyroid hormone then passes into the cells very easily. The body may respond by slightly reducing thyroid hormone production. This is not a true hypothyroid condition, but rather an adaptation to increased cell permeability.
• Stress is often the underlying cause. Most or all of these people are not true fast oxidizers, but rather slow oxidizers under stress, or stress fast oxidizers, no matter what the hair readings indicate.
• Toxic metals or a nutrient deficiency may interfere with some aspect of thyroid hormone production.

Dangerous drugging. Taking thyroid replacement hormones when one is in fast oxidation can be quite harmful. It can prevent the body from relaxing into slow oxidation and can significantly increase stress on the body. The case of Robert at the beginning of this chapter illustrates what can eventually result. If a hair analysis reveals fast oxidation, I suggest extreme caution with thyroid hormone replacement, regardless of serum or other hormone test results. If one feels tired without them, which is usually the case, it is because the body is in a healing phase. This will pass if one is following a properly designed nutritional balancing program.

HYPERTHYROIDISM OR GRAVE’S DISEASE

Grave’s disease is common, dangerous, and illustrates how traditional medical endocrine evaluation is lacking in depth. Also, the treatment of long-standing Grave’s disease are barbaric and never needed, in my experience, if one understands the condition well enough. Hair mineral tests indicate there are at least two types of hyperthyroidism. I call them primary and secondary:

• Primary hyperthyroidism is found in extreme fast oxidizers. It occurs in some hyperactive children, for instance. However, doctors rarely measure thyroid hormones in ADHD cases and it appears to be rare.
• Secondary hyperthyroidism is much more common and found in slow oxidizers with generally a good sodium/potassium ratio and some degree of a calcium shell or biounavailable calcium. Most are young, adult women, although it occurs in some men as well. The symptoms include some classic hyperthyroid symptoms mixed with slow oxidation symptoms. For example, the person feels “hyper” or irritable, perhaps sweaty and often has a fast pulse. Along with this, the person is also weak and exhausted, whereas in primary hyperthyroidism the weakness is not as pronounced. Stress almost always plays an important role in the condition and must be addressed for complete correction.

Both types respond to nutritional balancing programs. Primary hyperthyroidism is like other cases of fast oxidation. Copper, calcium, magnesium, vitamins A and D, choline, inositol and others that slow the metabolic rate, along with a proper fast oxidizer diet, can usually control and reverse the condition quickly. Secondary hyperthyroidism is more complex, although the supplements mentioned above will help somewhat. Others may be needed as well, however. The other factor to be addressed with the secondary type is usually an extreme stress of some kind. Let us explore the nature of secondary hyperthyroidism in more detail.

Only partial thyroid gland involvement. In secondary hyperthyroidism or Grave’s disease, the calcium/potassium ratio, or thyroid ratio, remains high. This indicates extremely weak cellular thyroid effect in the body. This is unlike primary hyperthyroidism, in which the calcium/potassium ratio is low, indicating too much thyroid glandular effect at the cellular level. This difference can be explained by the concepts put forth in the previous chapter about
glandular function. In secondary hyperthyroidism, one or more of the following must be occurring:

- **Impaired hormone quality.** This could be due to a genetic problem, a toxic metal, a nutrient deficiency or perhaps an enzyme defect that impairs the quality of the thyroid hormones. As a result, the cells keep sending signals to the pituitary gland and the thyroid gland to make more of them. This is a vicious cycle that results in Grave’s disease.
- **Impaired cell permeability.** Perhaps the quality of the thyroid hormones is adequate. However, they cannot pass into the cells adequately for some reason. The cells therefore keep signaling the pituitary and/or the thyroid gland to produce more of them in an effort to flood the bloodstream and force more into the cells. Slow oxidation, which is present in all cases of Grave’s disease that I have seen, is associated with reduced cell permeability because high calcium and magnesium levels tend to excessively stabilize cell membranes. Other possible reasons are deficiencies of omega-3 fatty acids or other cell membrane defects.
- **Low serum or tissue potassium.** Dr. Eck taught that potassium somehow sensitizes the cells to thyroid hormone. Everyone with Grave’s disease appears to have a low hair potassium level, so this may also be a cause for the condition.
- **Overwhelming stress or an emotional shock.** Acute stress always appears to be important as a trigger for Grave’s disease. The stressor may be too much exercise, too much fear or worry, an infection in the thyroid or elsewhere, a change in a relationship, or some other shock to the body. Stress definitely lowers the hair potassium level, for example, and raises the hair calcium level in a slow oxidizer. This may be the trigger for the condition.
- **The role of toxic metals.** High levels of mercury, copper and the amigos (iron, manganese, aluminum, and possibly chromium and selenium) are often found with Grave’s disease. Their role is unclear to me, but they may weaken the adrenals, affect cell membranes or act in some other way to interfere with normal glandular regulation of the body.

**Thyroid resistance disease.** Grave’s disease may be somewhat like cases of diabetes due to insulin resistance. In Type 2 diabetes, the body’s insulin is not able to do its job properly. In Grave’s disease, it appears that thyroid hormones are not able to their job properly. In both cases, the body responds by raising the level of the hormones in an attempt to compensate for the problem. A difference between the two conditions is that a high level of circulating thyroid hormones is quite dangerous for the heart, for example, so doctors must intervene to lower the hormone level. A high level of circulating insulin causes hypoglycemia, but this is a minor problem. One can simply eat some sweet or starchy food and the problem goes away.

**A partial stress response with reduced adrenal gland activity.** Secondary hyperthyroidism may also be viewed as a type of secondary alarm reaction in the body. However, unlike a normal stress response, there is very little participation by the adrenal glands. In slow oxidizers, the adrenals are tired out, or perhaps they do not respond because there is a problem of coordination with the activity of the thyroid gland. Thus, Grave’s disease can be viewed as an ineffective or very partial type of stress response. This concept is explored in more detail in Chapter 11.
Correction of Grave’s disease. Nutritional balancing is practically 100% successful with hyperthyroidism, in my experience, without a need for barbaric treatments such as surgery or radioactive iodine (RAI) destruction of the thyroid gland (and added radiation to the whole body). Anti-thyroid medication may be needed for a few months until the deeper causes can be corrected. For the best success with nutritional balancing:

- The person must rest much more and reduce stress.
- One must avoid all supplements that enhance the oxidation rate temporarily. These include all B-complex vitamins, and all thyroid or adrenal-enhancing vitamins, minerals, herbs and glandular products. These may be resumed once the condition is gone. Computer-generated supplement programs may or may not take this into account.
- Sauna use with an infrared sauna daily is most helpful and may be necessary. It relaxes the nervous system and removes toxic substances from the body that may cause the condition.
- Other relaxing natural therapies such as Rolfing, foot massage and others are very helpful.

‘Crashing.’ As Grave’s disease heals, some clients will develop low T3 and T4 levels for a while. They may also experience symptoms of low thyroid activity such as feeling cold in winter, with very dry skin and hair. It is as though they ‘crash’ from a hyperthyroid state into a hypothyroid condition for a while. This is similar to coming out of a four highs pattern, which can also cause a type of crash as a person moves into slow oxidation. It is not a problem, and will balance out by itself. It should not be treated with thyroid hormones or other drugs.

CHILDREN’S THYROID CONDITIONS

Cretinism. In its full-blown state, this is a rare thyroid condition in babies and children due to an iodine deficiency and/or low thyroid activity during pregnancy. It causes mental retardation and various types of delayed development syndromes that may somewhat resemble Down’s syndrome. The difference is that cretinism can be corrected with iodine supplements.

Today, I believe that mild cases of cretinism are once again a growing, silent problem in America and elsewhere. The babies appear normal, but have developmental delays and learning problems. The cause is not a frank iodine deficiency, but rather the presence of so many iodine antagonists in the environment. The topic of iodine antagonists is discussed in detail in Chapter 17.

For example, ignorant health authorities might suggest giving babies fluoride drops or tablets. Toothpaste, mouthwash and dental fluoride treatments add more of this poison. Also, I have reviewed the research indicating that baby food and children’s prepared foods such as reconstituted fruit juices are sometimes extremely high in fluoride without adding more of it. In addition, babies may drink chlorinated water, and chlorine is used in bleach and other products in the baby’s environment. Bromides are found in baked goods the children are allowed to eat. If health authorities were wise, they would immediately ban all these practices.
Karen, age 49, has been an insulin-dependent Type I diabetic for over 25 years. Earlier in her life she had bulimia as well. Her first hair mineral analysis revealed a slow oxidation rate with elevated levels of copper, manganese, iron and aluminum. Iron toxicity is very common in Type I diabetes, but is often hidden on the first few hair mineral analyses and may not show up on serum iron, ferritin, TIBC or other blood tests, either. Most doctors do not want to bother with a liver biopsy, which is probably the best diagnostic test for iron overload. Karen also had low zinc and low phosphorus levels. After one year on a nutritional balancing program, Karen has reduced her insulin requirement by 25%. She has also gone through many emotional healing reactions. She feels much more energetic, and much happier as well.

HYPOGLYCEMIA

Hypoglycemia and diabetes are among the most common and the most important ailments of our times. Hypoglycemia, in the view of nutritional balancing, is simply an early stage of diabetes, yet it is often ignored by post-modern doctors. As a result, it sooner or later progresses to the advanced stage of diabetes. There it accounts for much of the cost of our medical care system, and a significant part of modern mankind’s disability and premature deaths.

The ability to improve glucose metabolism at very deep levels is one of the centerpieces of nutritional balancing science. This must be emphasized because most holistic and medical programs only superficially improve a person’s sugar-handling ability. Nutritional balancing can, with enough time, free a person from diabetes and hypoglycemia completely.

THE BODY’S ENERGY SYSTEM

Chapter 25 introduced the concepts of energy, the most important concept in nutritional balancing science. Restoring glucose and carbohydrate metabolism is really about restoring the body’s energy system. Like an automobile, our bodies have a rather complex ‘fuel’ system that must work properly to provide power for all aspects of human health and activity.

Hypoglycemia and diabetes are similar to problems in an automobile in which the fuel system is not working quite right. In a book published in 1988, Robert Atkins, MD, wrote that he performed five-hour glucose tolerance tests on everyone who walked into his office for a period of months. Over 75% had abnormal tests. Today the situation is probably worse.
Restoring the body’s energy system is critical because:

- **Energy is needed for all body functions.** These range from the immune response to the glandular and digestive systems.
- **Energy is needed for all activities, from thinking to moving the body.** As energy improves, every aspect of life improves.
- **It is key to reversing the stages of stress.** As one moves back to a healthier stage of stress, most illnesses and other health conditions disappear.
- **Energy is needed for spiritual development.** This is the unfolding of the entire spectrum of human capabilities and the development of the subtle human bodies.

**TWO DEFINITIONS OF HYPOGLYCEMIA**

The traditional medical meaning of hypoglycemia is **low glucose in the blood.** This is what a doctor means by the term if he uses the glucose tolerance test or GTT to measure it. This is fine as far as it goes, but it is not sufficient. Many people who feel weak before a meal, or very hungry before a meal and must eat on time, have normal GTT tests. The patient undergoing a GTT may become weak, confused or even faint, yet the blood sugar remains in normal ranges.

**A more comprehensive definition.** A more comprehensive way to define hypoglycemia is **low energy production at a cellular level.** This is the meaning of hypoglycemia whenever the word is used in this text. The level of glucose may be low in the blood, or it may be normal or even high in the blood. However, either the glucose does not reach the cells or, if it does, it is not utilized well by the cells. The result is the same – low cellular energy production.

**CAUSES FOR HYPOGLYCEMIA**

General causes include an improper diet or lifestyle, nutrient deficiencies and/or metal toxicity. Other toxins, such as chemical toxins, bacterial toxins and even mental toxins, may also play a role. More specific causes for hypoglycemia include:

1. **Low glucose in the blood.** This may be due to:
   - **Excessive insulin secretion** (called reactive hypoglycemia). Insulin is the pancreatic hormone that is needed to move glucose from the blood into all the body cells.
   - **Low glucocorticoid hormone activity due to diminished adrenal gland activity.**
   - **Very rapid uptake of glucose into the cells, along with inadequate glycogen reserves.** This occurs often in fast oxidizers.
   - **Eating incorrectly, which might deplete the body’s glycogen reserves.**

2. **Inability to transport sugar from the blood into the cells.** This may be due to:
   - **Insufficient insulin secretion by the pancreas.**
   - **Poor quality insulin due to a zinc deficiency or other imbalances related to the pancreas.**
   - **Problems with insulin receptors. This might involve a chromium deficiency.**
   - **Inadequate cell permeability.**
   - **Other possible cell membrane defects.** These may involve fatty acid deficiencies, excessive calcium in the tissues, or other causes.
3. **Problems utilizing glucose inside the cells.** These may be due to:

- **Inability to convert glucose to adenosine triphosphate (ATP).**
- **Inability to metabolize ATP to adenosine diphosphate (ADP), which releases the energy of the glucose.** Some doctors refer to this problem and the one above as mitochondrial defects.
- **Infections, enzyme deficiencies or even a low body temperature.** These can compromise aspects of the cellular energy cycles and the conversion of glucose to energy.
- **A faulty oxidation rate.** This is like the tune or adjustment of an engine, or the rate of speed of the engine. It directly affects energy production, even if everything else is working right.

**Dysinsulinism and insulin resistance.** As the energy-producing system starts to fail, the body tries to force it to work better. It does this by raising the level of glucose in the blood in the hope that more sugar will find its way into the body cells. This is similar to trying to make a car go faster when it has a clogged fuel system by stepping down harder on the gas pedal.

The major way this is done is for the adrenal glands to secrete more cortisol, and perhaps other stress hormones as well. These convert more glycogen into sugar, and may cause the conversion of some proteins and fats into sugar as well. An elevated cortisol is not healthy, however. This process is known as gluconeogenesis in biochemistry books.

At first, the body’s effort to raise the blood sugar does not work well. In response to a higher cortisol and sugar level, the body just secretes more insulin and this keeps the blood sugar within a normal range. The person may feel tired, weight may increase and cholesterol and other lipid levels in the blood may become abnormal due to cortisol and insulin imbalances. However, standard blood tests may not show much, and more testing is rarely done. The patient may receive a cholesterol-lowering drug, which can make things worse as most are quite toxic.

**Metabolic syndrome or syndrome X.** The long-term results of an improper diet too high in sugars and starches, along with higher cortisol, other nutrient imbalances and metal toxicity often gives rise to metabolic syndrome. People with metabolic syndrome are at increased risk of Type 2 diabetes, coronary heart disease, and other diseases related to plaque buildups in the artery walls such as strokes and peripheral vascular disease. The risk factors are:

- **Abdominal obesity** (excessive fat tissue in and around the abdomen). It is currently defined as a man’s waist of 40+ inches (102 cm), and a woman’s waist of 35+ inches (88 cm).
- **Increasing age.**
- **Serum triglycerides above 150 mg/dl.**
- **HDL cholesterol below 40 mg/dl in men and below 50 mg/dl in women.**
- **Elevated blood pressure above 130/85.**
- **Insulin resistance or glucose intolerance with a fasting glucose above 100 mg/dl.**
- **Increased blood clotting tendency with elevated fibrinogen or other clotting abnormalities.**
- **An inflammatory state, often with a high C-reactive protein level.**
- **Other.** Physical inactivity, hormonal imbalances and perhaps even genetic predisposition.

Over 50 million Americans have this condition! This is one out of every six people. Even some children have it today. Instead of correcting the causes, medical physicians usually medicate these individuals with cholesterol-lowering drugs, blood pressure drugs and others. Blood pressure pills may prevent some deaths, but this is another enormous medical blunder. It costs the nation billions of dollars every year, and costs many lives as well. With nutritional
balancing, the risk factors usually disappear by themselves, often within a few months, without the need for any drugs. However, do not stop taking prescribed medication without checking with the prescribing physician.

**THE ONSET OF DIABETES**

After one has been hypoglycemic and/or has dysinsulinism or metabolic syndrome for a while, one of two scenarios develop. Either the pancreas cannot keep producing so much insulin and the insulin level declines. Simultaneously, the blood sugar level starts to rise and the person has a full-blown case of diabetes. The other situation that arises is that the body keeps producing enough insulin, but the insulin doesn’t work very well. That is, it cannot move the sugar out of the blood and into the cells well enough.

Doctors call this *insulin resistance*. It is likely due to a chromium deficiency or other factors that have to do with glucose transport across cell membranes. Perhaps it is caused by actual defects in the insulin molecule. Recall that the entire system is now under great strain and serious nutritional deficiencies are developing within it. Either way, clinical diabetes or high blood sugar is the result. From here, things go from bad to worse.

**Diabetes symptoms.** In its early stages, diabetes causes few symptoms, but may cause:

- *Frequent urination.* The kidneys attempt to control the blood sugar level by spilling some sugar into the urine. More water is lost with the sugar, so the result is more frequent urination. The word *diabetes* means excessive urine. This is not good because one can become dehydrated. Also, the body can lose more nutrients in the excessive urine.
- *More thirst.* Losing more water causes more thirst as the body calls for more water to replace the fluid lost to urination.
- *Fatigue.* This occurs due to cellular hypoglycemia, meaning an impaired energy production system. However, most diabetics are accustomed to this symptom, as it has gone on for years in most cases. They drink a little more coffee, tea or soda pop, and often use other stimulants such as fear and worry to keep themselves going day after day. Many diabetics are quite driven. This is a personality trait that is often found in diabetics.
- *Other hypoglycemic symptoms.* These may include sugar and starch cravings, shakiness or irritability before meals, inability to skip meals, intense hunger every few hours, or others.

**The glucose tolerance test or GTT.** A simple blood test may or may not reveal high blood sugar at this point because the level may vary during the day. The definitive medical test is a 3- or 5-hour glucose tolerance test. A GTT should be performed, since diabetes is a very chronic and serious condition.

**Diabetic complications.** These often occur in spite of the medical ‘cures’ of insulin and other drugs. The first sign is often peripheral neuropathy such as tingling and numbness in the extremities. Later complications include erectile dysfunction, trouble walking called intermittent claudication, blindness, kidney failure, weight gain, heart attacks, strokes, ulcers, gangrene and even amputation of toes or even limbs. This costs us billions of dollars annually, since diabetes afflicts some twenty million or more Americans and many millions in other nations as well.
AN ALTERNATIVE APPROACH

Nutritional balancing offers an alternative to the above scenario that plagues so many people today. The key features of this alternative are:

- **Prevention.** A proper diet, healthful lifestyle and nutritional supplementation, along with removing toxic metals, can absolutely prevent diabetes in most, if not all cases.
- **True reversal of the condition.** Reversal may take a few months or even a few years. However, I am often surprised how quickly some diabetics respond. Reversal can be accomplished at any stage of the disease.
- **No need for toxic, costly and very inconvenient drugs that do not even prevent serious complications and an early, painful death in many cases.**

The time factor in diabetes correction. Correction of diabetes with nutritional balancing can occur in as little as a few days to weeks, provided the client will 1) stop drinking all coffee or perhaps even tea, 2) rest a lot more, going to bed by 9 PM and with a daily nap, 3) drink at least 3 quarts of spring or distilled water that hydrates the body properly, 4) eat a lot of cooked vegetables, and 5) take several very targeted supplements to balance the body chemistry, and not symptomatic remedies such as herbs. Deeper correction of the body is slower, depending on how long the condition has gone on.

Robert Atkins, MD wrote that he was often able to reduce blood sugar levels as high as 900 mg down to normal within a few days to a few weeks by eliminating ALL carbohydrates from a person’s diet and supplementing essential nutrients. While his diet was extreme, its ability to reverse a serious condition so fast should tell us that nutritional approaches have merit and should be used first, before drugs and especially before insulin. A few doctors report reducing blood sugar very rapidly with a few days of a total water fast along with loads of rest. While a short-term approach and not as safe, in my view, it shows how natural methods can help.

Some nutritional balancing practitioners, including the author, have become discouraged when it takes a few years to reverse diabetes completely. The usual reason is simply that there are just many layers of adaptations to be uncovered, retraced and cleared. As a result, symptomatic improvement may or may not occur quickly, though often the person feels better very fast. So do not give up on diabetics. They often want a quick fix, and if they don’t get one, they become very despondent and often give up hope. However, there is no reason at all to give up on them, as they will get better.

OTHER TOPICS RELATED TO DIABETES

The diabetic personality type. Diabetics, as a group, tend not be the most cooperative patients. This is one reason diabetes is harder to correct than some other diseases. While many exceptions occur, diabetics as a group are hard-driving, productive people who are itching to return to their hectic schedules or lifestyle. They generally have more difficulty than some others in changing their lifestyles to rest more and relax more to allow healing to occur.

Cannibalism and a low sodium/potassium ratio. As the body continues to try to force up the blood sugar in order to push more sugar into the cells, it begins to consume or convert actual body tissue into sugar. This just worsens health much more.
An analogy. If stepping on the gas pedal does not bring enough fuel to the motor of a car, one could drain out some engine oil, which can burn as well, and pouring it into the gas tank. When that doesn’t work, one could drain the transmission fluid out and try putting that in the gas tank. When it doesn’t work, one could drain out the brake fluid and pour that into the gas tank.

Diabetes is a form of inflammation. Many factors involved in diabetes are the same ones involved in all inflammatory conditions. They include an inflamed or ‘hyped up’ blood sugar level, iron toxicity, zinc deficiency and often a diabetic personality type that is too active and not the most compliant. Also, elevated blood sugar is associated with advanced glycation end products or AGEs, which have oxidant properties that cause inflammation of the endothelial lining of the arteries. This is a cause of plaque and artery disease in diabetics.

Diabetes is usually a diet-related problem. The so-called diabetic diet is another dietetic and medical mess. Diabetes is often easy to control if a person severely limits carbohydrate intake for a while. In particular, however, one must avoid ALL refined sugars, all white flour products, all wheat (even whole wheat) and most fruits and all juices. Instead, one must eat many more cooked vegetables (but not potatoes and sweet potatoes) along with some animal protein such as meat and eggs.

Lifestyle habits and diabetes. Certain lifestyle habits often accompany diabetes:

- **Smoking.** All smoke is a powerful irritant and may stimulate the adrenals somewhat, even a depressant drug like marijuana. In addition, the smoke contains toxic metals that can affect any organ of the body.
- **Lack of rest.** Most diabetics do not rest nearly enough and push themselves. It is like a “lead-foot” driver who just floods the engine with fuel day after day. Eventually, the fuel system of the body becomes deranged. More rest is critical.
- **Alcohol.** Alcohol upsets the blood sugar, lowers zinc and other nutrients, and dehydrates the body to some degree.
- **Coffee-drinking and diabetes.** Many diabetics love coffee. This habit must cease completely. Even too much tea is not good. The effects of coffee, in particular, include:
  - **Acidification of the body tissues.** This is the most damaging effect of the coffee habit. While one cup per day of regular coffee, not espresso or cappuccino, is okay for most people, any more than this has a strong acidifying effect. This favors a high blood sugar and damages the body in many other ways, as well.
  - **Dehydration.** This alone can raise the blood sugar through a kidney-mediated mechanism. *Drinking coffee is the opposite of drinking the correct water, in this regard.* Making coffee with distilled water is even worse, as the chemicals in the coffee enter the cells even faster and more effectively. Everyone, but diabetics in particular, should replace all or almost all of their coffee-drinking with mainly pure spring water or distilled water, and few other beverages.
  - **Adrenal stimulation and eventually adrenal exhaustion.** Coffee is a powerful stimulant drug, more so than tea, that weakens the adrenal glands and stresses the body severely.

**SUMMARY AND IMPLICATIONS OF THE ABOVE**

- *All diabetics are hypoglycemic.*
- *Diabetes is always a nutritionally-related disorder.*
• The “diabetic diet” most patients receive is faulty and often makes their condition worse.

• Oral anti-diabetic drugs such as tolbutamide, Diabinase, Glucotrol, Micronase, Tolinase and others are pancreatic stimulants. They do nothing to correct the cause of hypoglycemia and diabetes, and, in fact, make one worse off later.

• Real healing requires nutritional supplements and lifestyle changes in most cases. Even the ‘best’ diabetic doctors and hospitals often ignore this.

HAIR ANALYSIS, HYPOGLYCEMIA AND DIABETES

Hair analysis can rapidly evaluate a person’s sugar-handling capability and cellular energy system, but is not diagnostic for diabetes or hypoglycemia. Five general trends Dr. Eck identified for hypoglycemia include:

• A very unbalanced oxidation rate.
• A sodium/potassium ratio less than about 2 to 2.5.
• A calcium/magnesium ratio above 9.5 or 10 or less than about 4.
• Certain trace mineral imbalances
• Elevated toxic metals, especially lead and cadmium.

These are quite general and, of course, extremely common today. Let us explore them further.

1. AN UNBALANCED OXIDATION RATE. Hypoglycemia and diabetes occur in both fast and most slow oxidizers.

   Reasons for hypoglycemia in fast oxidizers include:

• Burning up a lot of fuel. Like an engine that is running too fast, these individuals burn up a lot of fuel or calories. If they eat fast-burning sugars, for example, they may experience extreme swings in their blood sugar levels. This is one reason why they do better on fats and oils. These foods contain more calories than sugars and burn much slower. Fats are like hardwood logs that burn for hours, while sugars burn more like gasoline on a fire, providing only short bursts of energy and seriously upsetting the delicate hormone balance. For this reason, eating too many sugars places extreme stress on the bodies of fast oxidizers.

• Low glycogen reserves. Glycogen is a storage form of carbohydrates. Dr. Eck said that fast oxidizers may have less glycogen or fuel reserves, thanks to high cortisol levels. As a result, if they eat incorrectly or are under a lot of stress, they can “run out of fuel” easily. This may also contribute to extreme and sudden blood sugar fluctuations, especially when the diet is high in sugars and starches.

• Strong starch and sugar cravings. Fast oxidizers often crave starches, sugars or perhaps alcohol to give them a quick energy boost. This causes a roller coaster-like effect on their blood sugar level. This is very hard on the body, somewhat like repeatedly flooring the accelerator on a car. They may do this all day long for years until they burn out many nutrients, leading to hypoglycemia and diabetes.

• Stress seekers. Many fast oxidizers live in the fast lane and have Type A personalities. This kind of life tends to deplete their bodies of nutrients even faster, worsening their situation.
Increased cell permeability. A lower tissue calcium and magnesium level means that many fast oxidizers can move glucose into their cells very rapidly, depleting blood sugar quickly. This is especially the case when they are under stress, as they often are.

Mother’s milk is excellent for fast oxidizer children. Mother’s milk, rich in fat, is the perfect food for babies who are all fast oxidizers. Feeding babies and young children sweets of any kind, including juices and even much fruit or skim milk, is just asking for blood sugar problems. Babies and young children, in particular, require plenty of high-quality fats, including the omega-3 oils such as DHA for their brain development. A diet rich in quality fats and oils will not cause weight gain nearly as much as eating too many carbohydrate foods.

Reasons for hypoglycemia in slow oxidizers include:
• Reduced adrenal and thyroid glandular activity. This can cause generally lower cortisol levels, which tends to impair the conversion of glycogen to glucose, and results in chronic low blood sugar, at least in the early stage of hypoglycemia. Slow oxidizers often crave sweets or starches for this reason.
• Lower insulin levels. This may impair the body’s ability to move glucose into the cells, causing somewhat lower cellular glucose levels.
• Reduced cell permeability. This can interfere with the body’s ability to move glucose into the cells and move cellular waste products out of the cells.
• Elevated calcium and magnesium levels. Biounavailable calcium is associated with excessive cellular acidity that reduces cellular energy production.

Cravings for alcohol among slow oxidizers. Slow oxidizers may drink alcohol because it is an ‘alternative fuel’ that enters the bloodstream quickly, requires no digestion, is calming and solves the fuel problem, though it is only for a short time.

Protein helps slow oxidizers stabilize their blood sugar. Drs. Watson and Eck both knew this well. The reasons why adequate animal protein appears to be helpful:

• It slightly stimulates the adrenals and thyroid glands, enhancing the oxidation rate.
• It enhances protein synthesis, an anabolic or building up process that also helps move one out of slow oxidation.
• Animal protein supplies primarily zinc, but also B-complex vitamins, manganese and other nutrients that slow oxidizers require.

2. A LOW SODIUM/POTASSIUM RATIO. This is the most important indicator of sugar and carbohydrate intolerance. A ratio less than 2 is the basic indicator. Less than 1 is more extreme trend for carbohydrate intolerance. Reasons why this ratio is used include:

• Weak adrenals. The adrenals play a major role in maintaining the blood sugar level.
• Tissue catabolism or breakdown. This occurs because the body can no longer utilize sugars properly. As a result, it begins to cannibalize its own tissues. This may cause the hair potassium level to rise in relation to sodium as potassium is released from dying cells.
• Other cellular, electrical and hormonal imbalances.
2. A HIGH OR LOW CALCIUM/MAGNESIUM RATIO. Dr. Eck called the calcium/magnesium ratio the sugar sensitivity ratio. It appears to mainly reflect the dietary aspect of hypoglycemia and diabetes, rather than any internal aspect. Dr. Eck said that a ratio greater than about 10 is an indicator that one is exceeding one’s carbohydrate limit in the diet. This can occur even if one is not eating that much sugar or starch. In addition, Dr. Eck felt that a ratio greater than 12 is associated with diabetes. I have not been able to confirm this diabetic trend, however, because a high calcium/magnesium ratio is extremely common today.

Instead, I am now using a tighter level for excessive carbohydrates in the diet of about 9.5 to 13.5. Since Dr. Eck’s passing I have also noticed that a calcium/magnesium ratio above about 13.5 appears to indicate a lifestyle factor or an attitude that does not serve a person’s best interests, rather than diabetes. For this reason, I sometimes call this ratio the lifestyle ratio.

Dr. Eck also said that a calcium/magnesium ratio less than 3.3 is another trend for carbohydrate intolerance. I have not been able to confirm this too well, either. Any ratio below about 4, however, is definitely not within the normal range for this ratio.

4. TRACE MINERAL IMBALANCES. Low or very high levels (biounavailability) of certain minerals are associated with glucose intolerance. These include:

- **Magnesium.** This is needed for most enzymes involved with glucose metabolism. Magnesium is low in most diets and is biounavailable to some extent in all slow oxidizers.

- **Chromium.** Chromium is believed to be needed for insulin to move glucose through the cell walls. Chromium is almost universally deficient in the American and European populations, especially among those who live on refined food, and more so in those above age 40 to 50.

- **Zinc.** This critical mineral is also deficient in the entire population today. It is needed for insulin production, insulin release and to prolong the action of insulin. It is also needed to make digestive enzymes. A zinc deficiency may also cause the pancreas to secrete a less healthy and/or less effective form of insulin.

- **Manganese.** This essential mineral is required in the mitochondria of all cells to burn or metabolize glucose. Biologically available manganese is deficient in most of the population.

- **Copper.** Imbalance is associated with zinc deficiency, and often with energy loss due to low levels of available copper in the electron transport part of the Krebs energy cycle. Copper imbalance also often affects the thyroid gland. Fast oxidizers require more copper to balance their oxidation rate.

- **Selenium.** Adequate selenium is needed for thyroid activity and for liver detoxification. Selenium is commonly deficient in the population. A recent study by Martin Maclaustra (2009) indicates higher serum levels of selenium in diabetics. The author concluded that diabetics are selenium-toxic. However, since most people are deficient in selenium, it is more likely that either 1) selenium was being lost into the blood, or 2) perhaps the selenium is performing a protective function or 3) perhaps it is in a biounavailable form in the blood for some reason.

- **Iron.** Iron overload is very common and it can replace zinc in the pancreas, leading to some cases of diabetes. Iron is also required for cellular energy production in the electron transport system. Iron, in excess, causes oxidant and other inflammatory damage to the body in many ways that may include damage to the glucose metabolism system of the body.

5. ELEVATED TOXIC METALS. Toxic metals are commonly involved in hypoglycemia or diabetes. Cadmium, lead, mercury and copper in excess interfere with zinc
metabolism. Lead not only replaces zinc, but interferes with calcium metabolism as well. For this reason, the extra detoxification procedures I recommend are very helpful for those with hypoglycemia and diabetes.

**Toxic metals mostly hidden, at first.** This occurs because they are sequestered deep in body tissues. This is not a problem in nutritional balancing, as we assume they are present. The hair test provides enough information to guide the balancing of body chemistry. This, in turn, tends to mobilize ALL the toxic metals from storage and removes them, along with eliminating hundreds of toxic chemicals. More toxic metals will be revealed on retests as they are eliminated through the hair and skin. However, if the energy level is low, it is not uncommon to wait a year or more before many toxic metals are revealed on a hair analysis.

**CARBOHYDRATE TOLERANCE ASSESSMENT PROTOCOL**

1. **Check the oxidation type and rate.** Extremely slow or extremely fast oxidation rates are always associated with hypoglycemic tendencies. Even moderately unbalanced oxidation rates, both fast and slow, are often associated with hypoglycemia because energy is not used efficiently enough, leading to cravings for sweets and starches, and perhaps for alcohol as well.

2. **Check the sodium/potassium ratio.** When less than 2 this is another indicator for hypoglycemia and perhaps a tendency for diabetes.

3. **Check the calcium/magnesium ratio.** If it is between about 9.5 and 13.5, the person is likely exceeding his dietary carbohydrate tolerance. However, this may not mean the person eats a huge quantity of carbohydrates, since each person’s tolerance for them varies depending on one’s health, genetics and other factors. Carbohydrates are hidden in most foods, so a practitioner may need to ask detailed questions, at times, to discover where they are hidden in the diet. They can be high in milk, wine, beer, sauces, dressings and other unlikely places.

4. **Check the levels of zinc, in particular, as well as chromium, manganese, selenium and perhaps iron, copper and phosphorus.** These may provide additional clues to imbalances related to energy production.

5. **Review the levels of lead, cadmium, mercury, arsenic, nickel or aluminum.** All of these replace vital minerals and can potentially upset blood sugar and energy production.

6. **Signs and symptoms.** Often signs and symptoms are extremely helpful to identify blood sugar imbalances. *Hypoglycemic symptoms* may include fatigue even if one sleeps well, irritability before meals, inability to skip or miss meals, and cravings for chocolate, sugar, salt, hot or spicy foods, or other ‘pick-me-ups’.

*Diabetic symptoms* include frequent urination during the day and at night, excessive thirst, cravings for carbohydrate foods, yeast problems, weight loss in some but not all cases, and at times generalized weakness. A review of several hundred thousand mineral analyses confirms the value of these simple indicators for both detecting and monitoring glucose tolerance. These indicators, together with symptoms, can usually and easily determine whether hypoglycemia and possibly diabetes are present.

A glucose tolerance test or GTT should be done on anyone in whom the practitioner suspects diabetes. A GTT for hypoglycemia, in my view, is not needed if one has a hair analysis. Problems with the GTT abound. The person may start shaking or have other hypoglycemic symptoms, and the results are not easy to interpret. Robert Atkins, MD, who ran a lot of them, suggested that insulin should always be measured with glucose to make the test more accurate.
Richard, age 59, was a retired school teacher. His blood pressure had been mildly elevated (about 140/100) since age 18. He had no other significant health problems. Richard ate a high-quality, mostly vegetarian diet and took vitamins regularly. Both parents died of arteriosclerosis at age 76. At times, high blood pressure is due to some degree of kidney impairment. Richard's first hair analysis revealed several indicators of kidney stress:

- The sodium/potassium ratio was low at 1.27 (50% of normal).
- Cadmium was elevated. Cadmium is highly toxic and accumulates in the kidneys, where it can affect blood pressure. Cadmium is also associated with hardening of the arteries because it replaces zinc in the arteries.
- Calcium and magnesium levels were very high. This can indicate calcium deposition in the soft tissues. Calcification can occur in the delicate vessels in the kidneys, causing congestion and increased resistance to the blood flow.

After three months on a nutritional balancing program, Richard reported his blood pressure was slightly lower, about 138/84. His first hair analysis retest revealed:

- The sodium/potassium ratio was higher, but still somewhat low, indicating kidney stress.
- Cadmium doubled! This indicates a rapid elimination of cadmium through the hair and skin.
- Iron was elevated. Iron toxicity can cause high blood pressure. Iron toxicity is often associated with feelings of anger and hostility, which are also known to raise blood pressure.
- Nickel and lead were also elevated on this test, indicating they were hidden before and were now being eliminated.

Six months later, Richard reported his blood pressure was 130/80. It has remained at this level for over five years, without the need for a nutritional program or any drugs. Note in this case how many toxic metals were hidden and not revealed on the first hair mineral analysis.

Case #2. A young friend and neighbor, age 28, stopped in and complained of mild chest pain that reminded me of angina pain. He did not want to bother with a hair analysis. I guessed that he did not eat well and probably was low in calcium and magnesium. (I don’t normally guess, as I am often proven wrong by the hair analysis). I gave him a bottle of chelated calcium and magnesium tablets and suggested he take one tablet three times daily to see what would happen. At least, I thought, this is fairly safe.
Several days later he stopped by again and said the pain was completely gone. I reminded him to keep taking the tablets. He thanked me and went on his way. A few weeks later I saw him and asked if he was still taking the tablets. He said he was not very regular with them and the pain in his chest had come back. A few months later, I came home from work to find the paramedics at his apartment. At 28, he had died of a heart attack. I believe this tragedy could have been averted if the young man had just taken the time to balance his body chemistry with a simple dietary and nutritional supplement program.

**Cardiovascular health.** Nutritional balancing is very helpful to prevent and correct most cardiovascular conditions. These include angina, heart attacks and strokes. Others include arteriosclerosis, aneurysms, congestive heart failure, heart valve problems, venous stasis, circulation problems such as Reynaud’s disease, as well as others. Their biochemical causes are:

- **Connective tissue problems.** Most, if not all cardiovascular diseases have a connective tissue component. This has to do with copper imbalance and zinc deficiency in many cases, along with low vitamin C levels. Copper and vitamin C are direct antagonists. This means that slow oxidizers, who often have too much copper, also need more vitamin C, within reason. Too much vitamin C, however, is very yin, which unbalances the body. It may also chelate and remove other essential minerals including zinc, copper, manganese and others.
- **Toxic metals.** These are almost always involved. The heart is a smooth muscle that readily absorbs certain toxic metals such as arsenic, lead and others.
- **Obesity, sedentary lifestyles, and horrendous diets and eating habits.** These often play an important role in cardiovascular disease.
- **Autonomic imbalances.** The cardiovascular system is activated by the sympathetic nervous system. Autonomic imbalances are often involved in cardiovascular disease, along with emotions of fear, anger, rage and others. Phrases such as “he died of a broken heart” are not without some truth.

**Imbalances on a hair analysis associated with cardiovascular conditions include:**

- **All magnesium imbalances.** These are perhaps the most critical imbalances having to do with the heart and cardiovascular diseases. Too much magnesium in the tissues indicates biounavailability, a trend for heart attacks, atrial fibrillation and other imbalances. Too little magnesium is sometimes also associated with these and other conditions.
- **Toxic metals.** For example, cadmium replaces zinc. Lead replaces calcium and perhaps magnesium. Iron and manganese replace zinc as well. Mercury replaces zinc and other vital minerals in the artery walls and elsewhere.
- **Low tissue calcium and magnesium.** This causes chronic vasoconstriction and is part of the fight-or-flight syndrome.
- **High tissue calcium and magnesium.** This is strongly associated with deposits of calcium that can harden the arteries everywhere in the body. This leads to high blood pressure, kidney disease, general inflammation in some cases, aneurysms and other problems.
- **Copper deficiency or biounavailability.** Copper is essential for the integrity of connective tissues, which include the arteries, veins, capillaries and the heart valves.
- **Low zinc.** Zinc is required for the flexibility of the arteries and to reduce inflammation.
• **Low energy or vitality.** The heart uses a lot of calories and energy. When energy is low, the heart will feel the strain and will not work as well.

• **Fast oxidation.** This is associated with high blood pressure, tachycardia or fast pulse, and often with certain types of arrhythmias, palpitations, angina and other symptoms.

• **Slow oxidation.** This is associated with many cardiovascular diseases, from impaired circulation and arrhythmias to certain types of heart attacks and strokes.

• **A low sodium/potassium ratio.** This is associated with tissue catabolism or tissue breakdown. This may affect the arteries and the heart itself, leading to cardiomyopathy, for example. This serious condition can respond excellently to nutritional balancing and sauna therapy.

• **Low hair potassium.** This is associated with many cardiovascular problems such as palpitations, skipped beats, heart attacks and others.

• **High hair Sodium.** High sodium is associated with fluid retention, edema and hypertension.

• **Low hair sodium.** Very low sodium is associated with fluid loss and a lower blood pressure.

• **Elevated iron.** Toxic iron can build up around the heart and even in the heart muscle itself.

**Other risk factors for heart disease.** These include a family history, aging, menopause, smoking, eating sugar, eating hydrogenated and trans-fats in foods like margarine, hypertension, obesity, lack of any exercise, stress, anger, depression, diabetes, high total cholesterol, high LDL cholesterol, low HDL cholesterol, high homocysteine, infections of all kinds, high fibrinogen, high C-reactive protein, high insulin, high triglycerides, low testosterone, metabolic syndrome, use of some prescription or recreational drugs, and any exposures to radiation, toxic metals, pesticides, EMFs and many toxic chemicals.

**HEART ATTACKS (myocardial infarction)**

**Causes.** Doctors do not often emphasize enough the two primary types of heart attacks:

• **Those caused mainly by constriction of all the arteries leading to the heart.** These are more common in fast oxidizers.

• **Those caused mainly by a blood clot or piece of plaque that becomes lodged in one coronary artery.** These are more common in slow oxidizers.

• **Both can be aggravated by narrowed, inflamed, brittle or otherwise damaged arteries.** Nutritional balancing can often predict which is more likely. It can also help prevent heart attacks in the first place, and assist rehabilitation to avoid second heart attacks, as well.

**Fast oxidation and vasoconstriction.** Fast oxidizers are more prone to heart attacks caused or aggravated by muscular constriction of the coronary arteries. These are the arteries leading to the heart. The arteries may constrict as part of a fight-or-flight reaction. The heart attack occurs due to the following cascade of events:

• **An acute stress, or perhaps a small blockage of an artery leading to the heart, occurs first.**

• **This causes pain, faintness, shortness of breath, and perhaps other symptoms.**

• **The result is a more intense fight-or-flight response, which further constricts the arteries.**

• **This causes more pain and discomfort, and an even more intense fight-or-flight response that further constricts the arteries.**

• **If this vicious cycle is not broken fast, usually with an injection of magnesium sulfate at a hospital, blood flow to the heart decreases, causing severe or fatal damage to the heart.**
Slow oxidation and thromboses. The cause of this type of heart attack is:

- A small piece of plaque breaks free and lodges in a coronary artery. This is called an embolism or thrombosis of a coronary artery. This causes pain, faintness and other symptoms. The area of the heart served by this artery usually dies.
- However, since there is not much of a fight-or-flight response in slow oxidizers, the other arteries do not constrict and keep functioning normally.
- As a result, this type of heart attack usually only affects a small part of the heart and the patient often survives. It is usually only fatal if the heart has been previously damaged or if the blood clot happens to be in a very large coronary artery, which is actually rare. Some of these heart attacks are even “silent”, meaning they give no symptoms at all. One is only aware of them later because a routine electrocardiogram or EKG shows some heart damage.

A combination of the two types occurs at times, as well. This explanation of heart attacks may sound simplistic. However, if it were widely known, it would save many lives because both types, and especially the first and more fatal type, are quite easy to prevent with a nutritional balancing regimen, or even just calcium and magnesium supplements, in most cases.

Secondary and underlying causes of heart attacks. Many factors can contribute to both types of heart attacks. Medical doctors are aware of the impact of smoking, obesity, alcohol consumption, thickened or sludgy blood and perhaps inflammation (a high C-reactive protein, for example). Factors they are less aware of include fast and slow oxidation, zinc and copper imbalances affecting all connective tissue, vitamin C deficiency, or even a sulfur imbalance in some people. Other subtle factors are toxic metals in the arteries, bioavailable calcium that builds up in the arteries, inflammation, low energy production leading to inability to adequately repair the arteries, and others. Nutritional balancing usually addresses all of these factors much better than most symptomatic remedies such as herbs, vitamins or exercise regimens.

HIGH BLOOD PRESSURE OR HYPERTENSION

Most hypertension is labeled 'essential', which means the doctor does not know the cause. However, hair testing often easily identifies half a dozen or more causes. These may include:

- Stress and/or anger. These alone will elevate the blood pressure. Hair analysis patterns with this may be a fast oxidation rate, a high or low sodium/potassium ratio or possibly others.
- Arteriosclerosis. This is a common cause of high blood pressure. Systolic blood pressure tends to elevate more than diastolic pressure when calcification of the arteries is present.
- Atherosclerosis. This is a form of arteriosclerosis in which fatty plaques accumulate in the arteries. Zinc deficiency, copper toxicity or high toxic metals causes arteries to become brittle and inflamed. They may become coated with plaque for protection or as a response to inflammation. Cadmium, in particular, is associated with hypertension, although all the toxic metals can contribute, as can many toxic chemicals as well.
- Kidney impairment. Most of one’s blood flows through the kidneys every three minutes or so. Especially as one ages, the kidneys usually become congested and toxic, impairing blood circulation through them. Hair analysis indicators of kidney stress include a low or very high sodium/potassium ratio, and elevated levels of mercury, cadmium and/or nickel.
• **Fast oxidation.** In this situation, low calcium and magnesium levels, and increased adrenal and thyroid gland activity cause vasoconstriction. This often results in a labile or fluctuating hypertension. An elevated tissue sodium level may also cause a higher blood volume and blood pressure. Fast oxidizers may also be more angry and stressed, which can affect blood pressure in some cases.

• **Diabetes, stress and uncontrolled emotions are other important causes.**

• **Metal toxicity.** Common toxic metals found in cases of hypertension include cadmium, mercury, copper, iron or others.

• **Fatigue.** Becoming too tired tends to increase the blood pressure. Circulation slows with fatigue and the body may increase the secretion of adrenaline to keep one going. This can increase the blood pressure. More rest is the simple solution for this cause.

### LOW BLOOD PRESSURE OR HYPOTENSION

Low blood pressure is usually associated with adrenal insufficiency and a slow oxidation rate for the following reasons:

• **Low levels of adrenal hormones cause relaxation and thus some dilation of arterial muscles.**

• **Slow oxidizers are often in a parasympathetic state, associated with lower blood pressure.**

• **Slow oxidizers generally have lower tissue sodium due to insufficient aldosterone secretion.** Sodium loss causes a lower blood volume, which contributes to lower blood pressure.

• **Overall lower energy levels may also contribute to lower blood pressure.**

Extra sea salt is often helpful to increase the blood pressure if it is very low. Other supplements that can be helpful are adrenal and thyroid glandular substance, kelp or other iodine supplements, vitamin C, vitamin E and perhaps B-complex vitamins. However, the real answer is an integrated program to restore biochemical balance at the deepest levels. True fast oxidizers rarely have low blood pressure. When low blood pressure is present in a fast oxidizer, one must suspect the person is really a slow oxidizer under stress, also called a temporary fast oxidizer.

### ARTERIOSCLEROSIS. Hair analysis indicators are:

• **Low copper.** The hair and serum copper level may be high, low, or normal. However, all fast oxidizers need some extra copper. Slow oxidizers may experience biounavailable copper that could contribute to the problem as well.

• **High calcium.** Calcium greater than 70-80 mg%, especially with a high calcium/magnesium ratio, is associated with calcium and perhaps even magnesium deposits in the arteries. When sodium and potassium levels become low, some calcium precipitates out of the blood and deposits in the arteries and other soft tissues.

• **Low zinc or high toxic metals such as cadmium.** Cadmium, mercury and other toxic metals can replace zinc and other vital minerals in the arteries. This causes brittleness and inflammation. The body often then coats the inside of the artery with cholesterol or calcium plaques to prevent further damage.

• **Diabetes.** This is a common cause of atherosclerosis and small artery disease. See Chapter 29 for the discussion of the causes of diabetes. Many have mild diabetes and do not know it.
Inflammation. This is recognized as an important cause of artery disease. Doctors suggest taking aspirin forever to counteract it. In nutritional balancing, inflammation is dealt with by removing its causes such as low zinc, high copper, higher toxic metals and other imbalances.

Hypertension. High blood pressure due to another cause can weaken the arteries and cause the body to coat them with plaque to protect them. Arteriosclerosis also causes hypertension.

Symptomatic natural remedies for inflammation. These include extra omega-3 fatty acids, zinc and magnesium supplements, cod liver oil, and perhaps coenzyme Q-10, hawthorn berry, taurine, garlic, curcumin, other spices and other supplements, at times.

Bypass surgery should never be needed if nutritional balancing science were applied. According to several large medical studies it is not even helpful in the long run. It is extremely costly, dangerous and always leaves the person with some brain damage due to the anesthesia and other drugs used in the procedure. Even in medical studies, more conservative treatment with diet, lifestyle, and perhaps drugs, if absolutely needed for a while, have been shown to be just as good. Sauna therapy, especially as part of a nutritional balancing program, can help remove anesthetics and other drugs that result from surgeries such as bypass.

TACHYCARDIA, PALPITATIONS AND ARRHYTHMIAS

Both fast and slow oxidizers can experience these symptoms. Fast oxidizers may experience all of them due to low levels of calcium, magnesium, zinc, copper or other vital minerals. These are needed to calm and regulate the heart. Toxic metals occasionally play a role as well. A faster pulse is part of the fight-or-flight response.

Slow oxidizers may experience palpitations and tachycardia due to a potassium deficiency, or due to biounavailable calcium, magnesium, zinc or copper. Low thyroid and adrenal activity in slow oxidizers can cause a weak and/or slow pulse in many older people. Toxic metals such as mercury, cadmium and others also often play a role in arrhythmias, palpitations and tachycardia. As they are removed, atrial fibrillation and other heart rhythm imbalances usually disappear without the need for pacemakers or other interventions.

Retracing and arrhythmias. During a nutritional balancing program, many people notice temporary, short episodes of irregular heart beats, palpitations or tachycardia. The usual cause is the release of toxic metals from storage sites and their temporary presence in the bloodstream. Most symptoms pass quickly.

Heavy sweating can be dangerous for those with a 1 or 2 mg% potassium level. Such individuals can experience cardiac arrest and death if potassium becomes too depleted due to a low potassium diet and fatigue, perhaps, combined with heavy exercise or pushing hard and then sweating heavily outside, in a sauna or elsewhere. This is what kills some young athletes.

HIGH CHOLESTEROL

Cholesterol is the vital raw material that is converted into all the adrenal and the sex hormones. Lowering it with drugs is silly and often dangerous. Elevated serum cholesterol is an indicator of stress involving the liver and adrenals, and little else.

Studies of the newer “statin” drugs reveal very serious side effects and minimal benefit for most people if one reads the studies carefully. Also, most of the studies were paid for by the drug makers themselves and cannot be trusted. Serum cholesterol levels normalize easily with a
nutritional balancing program in almost all cases, without any extra dietary cholesterol restriction. In fact, quality eggs and meats are important foods for most people. Extra fiber in vegetables also helps remove excess cholesterol.

'TYPE A' PERSONALITY

The personality described in medical literature as 'type A' is commonly associated with fast oxidation and/or sympathetic dominance. 'Type A' personalities tend to be aggressive, hard-driving, and have a tendency for high blood pressure and cardiovascular disease, especially if they are angry. Newer research has shown that not all 'type As' develop heart conditions. Those who are hostile and frustrated are the most susceptible. Interestingly, hostility and frustration are associated with a low sodium/potassium ratio on a hair mineral analysis. This is indeed one of the hair analysis indicators for heart disease, as well as for ulcers and other symptoms to which these individuals are prone.

IMPAIRED CIRCULATION

Impaired circulation is often easy to correct with nutritional balancing. Hair testing will often reveal the cause of the problem, so it can be addressed properly. The causes include:

- Arteriosclerosis, atherosclerosis, diabetes or heart weakness from any cause.
- Slow oxidation with sluggish thyroid and adrenal glandular activity.
- Low blood pressure, which is often due to reduced adrenal gland activity.
- Skin congestion, toxicity or some other problem in the skin.
- Excessive sympathetic nervous system activity. Especially when combined with weak thyroid and adrenal glands in the pattern called sympathetic dominance, the body tends to shunt the blood away from the extremities and toward the interior of the body as a defense mechanism.
- Reynaud’s syndrome. This is a very severe autonomic imbalance that can be corrected, but may take longer to unwind because it has become a habitual fight-or-flight response to stress.

EDEMA AND CONGESTIVE HEART FAILURE

Swelling or edema of the ankles and other areas of the body has several causes. Most commonly it is due to kidney problems or heart problems. Hair analysis indicators are:

- A low sodium/potassium ratio. This may indicate kidney and/or cardiac stress. Either can contribute to edema. A very low ratio may be associated with congestive heart failure, a very serious cause of edema, although it is one that can be helped in many cases.
- A high sodium or an elevated sodium/potassium ratio. This can indicate water retention due to excessive sodium in the blood or tissues.
- A high-carbohydrate diet. This may cause yeast or other infections. It may also cause a higher sodium level due to inflammation and zinc depletion. Reducing dietary carbohydrates may have a beneficial diuretic effect. Eating wheat may cause edema due to allergic reactions and because it is highly inflammatory, due in part to its high glutamine content.
- Low zinc, often from stress. This can allow sodium to rise. Deficiency of vitamin B6 and magnesium may have a similar effect, as these nutrients act together with zinc.
• **Cadmium toxicity.** This often affects kidney activity and may cause sodium retention. Other toxic metals such as mercury, nickel, lead and others may have similar effects.

• **Protein deficiency.** This occurs rarely in some vegetarians, anorexic patients or others on extreme diets such as fruit diets. It can cause swelling due to osmotic imbalances.

**Congestive heart failure.** This is a failure of the heart to pump adequate blood. Fluid build-up occurs often in the feet and ankles. Causes of congestive heart failure include damage or weakness of the heart muscle, heart valve disease, hardened arteries that force the heart to work harder, and the emotion of sadness. Nutritional balancing is often helpful. In addition to the usual nutrition program, supplementary vitamin B6, zinc, bioflavinoids, coenzyme Q10, hawthorn berry and kidney glandular substance may be helpful.

**ANEURYSMS**

Weakness and bulging of the arteries are often due to zinc and other vital nutrient deficiencies. Toxic metals such as cadmium, lead or mercury may replace the zinc, weakening an artery wall. Usually, surgery is performed promptly when an aneurysm is detected. Recently, however, a doctor I work with was able to monitor an aneurysm with x-rays on a patient who refused surgery and simply followed a nutritional balancing program. The aneurysm decreased significantly in size and no surgery was performed. This surprised me, as the gentleman was in his 60s at the time. I suspect that many small, sub-clinical aneurysms may disappear during the course of nutritional balancing programs.

**RESPIRATORY CONDITIONS**

**OXYGENATION, A PRIMARY NEED TODAY**

To oxygenate every body cell adequately is critical for optimum health. Today this is problematic for many reasons. The most important of these are:

• **A lower oxygen content of the air, particularly in urban areas, mainly due to auto emissions.**

• **Chronic lung, sinus and bronchial infections in many adults that reduce breathing efficiency.**

• **Shallow breathing, particularly in women. This is largely due to a combination of chronic fear, lack of grounding and not wanting to move the abdomen in and out with each breath.**

• **Low anti-oxidant nutrient levels and smoking anything damages many people’s lungs.**

• **Impaired general circulation and mild anemias that are fairly common in young women.**

• **Sedentary lifestyles and poor posture.**

**Solutions.** Everyone needs to learn good posture and to breathe deeply. Chapter 2 describes ways to do both of these. Healing all lung and bronchial infections with nutritional balancing science is also important, and may take a few years, as many are very chronic. Sauna therapy is most helpful for this purpose. In addition, everyone can use an ozonator/ionizer air purification machine. These are not too costly, and they convert some oxygen in the air to ozone or O3. When it reaches the body, it is converted to O2 and supplies a little bit more oxygen to the body cells. Chapter 49 contains information concerning how to purchase and use this machine properly in your bedroom. Hydrogen peroxide baths may also be excellent.
ALLERGIES

Allergies are inflammatory responses to foreign proteins and other foreign material that finds its way into the body. While the most commonly known ones are environmental allergies such as hay fever and a runny nose, other types include food sensitivities and brain allergies. Food allergies or sensitivities are almost universal. They are due to a combination of toxic food products and a deranged digestive system in many people today. They are extremely common in babies with developmental problems, for example, not just adults.

Brain allergies refer to reactions that take place in the central nervous system as a result of eating the wrong foods, or exposure to toxic chemicals or other allergens. They can be a hidden cause for many mental and emotional symptoms. The main causes of allergies are:

- **Weak adrenal glands.** When the body does not produce enough adrenal hormones, susceptibility to allergies increases. This is why the medical treatment for an acute allergic reaction is often adrenal hormones such as a shot of cortisone or adrenaline. The success of certain common remedies for allergies is due to their effects on the adrenals. These include vitamin C, pantothenic acid, manganese and B-complex vitamins. As the adrenals recover and rebuild, allergy problems often subside.
- **Fatigue or stress.** These often make allergies worse by further depleting the adrenal glands.
- **Excessive cell membrane permeability.** This allows foreign matter to enter the body too easily. Causes include 1) fast oxidation and/or 2) low hair calcium and magnesium levels.
- **Leaky gut syndrome or low omega-3 fatty acids** are common causes of food allergies.
- **Low adrenal reserves.** Low adrenal reserve capacity can contribute to acute and often severe allergic reactions, including asthma and anaphylactic shock in a few cases.
- **Higher histamine levels.** Dr. Eck said that fast oxidizers have higher histamine levels, though it is also possible that they simply release histamine more easily, since their cells are more permeable.
- **Other possible causes.** Other nutrient deficiencies, toxic metals or even an attitude of closing oneself down or rejecting the world might contribute to some allergies.

**Correction.** At times, a simple remedy may suffice to control allergies. For example, supplementary calcium, magnesium, bioflavinoids and perhaps vitamin A often have anti-allergy effects in fast oxidizers and perhaps in sympathetic dominant slow oxidizers. These nutrients can strengthen capillaries, stabilize cell membranes and may slow the oxidation rate somewhat. More fat in the diet may help control allergies in fast oxidizers by reducing the oxidation rate. A complete nutritional balancing program is best as it can better identify and correct underlying causes for many kinds of allergies.

ASTHMA

Asthma is often a chronic allergic phenomenon involving a constriction of the bronchial tubes that causes difficulty breathing. The incidence of asthma, especially in children, has increased dramatically in the past 30 to 50 years. Most of the above regarding allergies applies to asthma, and it often responds easily to nutritional correction. In addition:
• **Chronic bronchial or lung infections may be involved with more difficult cases of asthma.** Getting rid of the infection will often take care of the asthma.

• **Food allergies are often present in many cases of asthma.** The most common allergic foods are wheat, beef, dairy, eggs, soy and sometimes corn. However, any food can cause a problem. A nutritional balancing program with a better diet can often reduce all food sensitivities rapidly.

• **Emotional factors may be important with asthma.** The person may feel suffocated for some reason. Inhibited expression may also be an emotional basis for asthma.

• **Stress often makes asthma worse, and may precipitate an attack.**

Fast oxidation with a low sodium/potassium ratio is a common acute asthmatic pattern. Slow oxidizers often experience a more chronic form of asthma. Nutritional balancing usually helps eliminate asthmatic conditions by reducing all allergic phenomena, relaxing the nervous system, reducing food reactions and enhancing digestion, and by bringing up and resolving chronic bronchial infections.

**RESPIRATORY INFECTIONS**

**Causes of respiratory problems.** These include the usual nutritional factors and toxic metal excesses. Other contributors include smoking, stress, poor diets, fatigue, air pollution, and shallow or disturbed breathing. Other possible causes include a lack of exercise or breathing very cold or foul air in closed spaces such as auditoriums, ships, planes, trains and buses.

Respiratory infections tend to respond well to nutritional balancing programs. Chapter 45 discusses simple, safe, non-toxic treatments for all infections.

**Sinus infections.** Most adults, in my experience, have some degree of chronic sinus infection. Symptoms are often minor, such as post-nasal drip or occasional sinus headaches. Other symptoms can be intense such as headaches and pain. The causes are poor circulation to the area along with the architecture of the sinuses that makes it easy for bacteria, and particularly fungi, to colonize there. For chronic infections, a nutritional balancing program will slowly improve the terrain until the infection becomes acute and is eliminated. In addition, for an acute sinus infection, excellent, powerful and quite safe remedies are:

• **Sniff and rinse the sinuses several times daily with preferably warm salt water.** Use about 1/2 teaspoon of Hain sea salt in 6 ounces of distilled water.

• **Sniff or inhale a little colloidal silver into the nostrils.** It should also be taken orally at the same time. It is quite non-irritating and is a wide spectrum anti-infective agent. I prefer products that contain less than 50 parts per million colloidal silver for this purpose, though sometimes the higher concentration of silver works well, too.

• **Buy a 250-watt, R40 base, reddish “heat lamp” from the hardware store.** This is really an infrared heat lamp, though they are not labeled this way. Place it in a socket that can handle a 250-watt bulb. Close your eyes and shine the lamp directly at the sinuses, as close as you can get without burning yourself. Keep moving the lamp around the sinus area for a maximum of 10 minutes at a time, 5-6 times daily. Results are often excellent. You can combine this with the salt water rinses and colloidal silver methods above.
• The reddish heat lamp also works wonders, at times, on ear, nose, throat, bronchial and other types of infections. Also, for general flu and infection symptoms, shine the lamp on the thymus area at the upper part of the chest for 15 minutes at a time 4 or 5 times daily. This treatment appears very safe. Cautions are do not touch the hot light bulb. Also, never shine the lamp directly in your open eyes and do not use the lamp on any part of your head for more than 10 minutes at one time. Wait at least an hour between sessions. You may leave the lamp on longer when it is shining on your chest, back or other part of the body.

Rhinitis, bronchitis and pneumonias. These common problems plague many people and can develop into more serious disorders such as chronic obstructive pulmonary disease or COPD, bronchiectasis and emphysema. Chronic infection is usually a factor in all of these conditions. A nutritional balancing program will slowly bring up stubborn lung and bronchial infections for healing. A number of years may be required, especially in older individuals.

A hair analysis may reveal a low sodium/potassium ratio in these instances, indicating a tendency for infection. However, this may not always be the case. Elevated nickel is also associated with lung damage in a few cases.

Nasal stuffiness during nutritional balancing programs. Clearing sinus problems and the elimination of toxic metals and chemicals from the brain are the causes in most cases.

Athletic training and nutritional balancing. Nutritional balancing is excellent for all athletes, but is not specifically designed as a performance enhancing program. In fact, vigorous exercise training tends to slow all deeper healing in the body by 1) increasing sympathetic nervous system activity, 2) depleting nutrients, and 3) interfering with rest and regeneration. For these reasons, vigorous exercise regimens are never helpful with nutritional balancing science.

ANEMIAS AND OTHER BLOOD DISORDERS

Dr. Eck took an interest in anemias and their close relationship with toxic metals. Blood is produced in the marrow of all the long bones of the body. This may seem like an unusual place for blood formation, but the reason for it is that the bones actually protect the marrow from most contamination due to various toxins, including toxic metals. Today, however, most people have some toxic metals in the bone marrow itself, and this is one reason for blood disorders.

Once all of the blood cells are formed in the marrow, they circulate for about four months before they are destroyed in the spleen, liver and elsewhere. Their components are then recycled to make new red and white blood cells. This is actually a fascinating process and one that can go awry due to many factors. Among the most common types of anemias are:

• Iron deficiency anemia and copper. Many apparent iron deficiency anemias are caused by copper imbalance and require a program to balance copper in the body. Most are mild, chronic, microcytic, microchromic anemias in young women and, at times, in children. Available copper is required for the conversion of iron from the ferric to the ferrous form, and back again, to produce hemoglobin. Anemia due to copper imbalance appears identical on blood tests to iron deficiency anemia. However, the cause is different and it does not respond well to supplemental iron. A hair mineral analysis can help distinguish the two, since taking iron is not healthful for most people and unnecessary in most cases. Times
when iron may be needed include 1) young women with very heavy periods, 2) strict vegetarians, and 3) anyone who is malnourished, especially if they do not eat meat or eggs.

- **B12 anemia common in older people.** Most people lose some ability to absorb vitamin B12 from their food as they age. This is a serious problem for many over the age of 60 or perhaps younger, especially if the digestive tract is in poor condition or if one is under a lot of stress.

  Vitamin B12 deficiency causes a macrocytic or so-called **pernicious anemia.** It can cause permanent brain damage with symptoms of confusion, memory loss, dementia and even death. It is often missed by doctors in its early stages. A mild B12 anemia may also occur in vegetarians, or others who do not eat much meat or eggs. The cost of supplementary vitamin B12 is so low that this simple problem ought to receive more attention by the medical community. It is also a reason why everyone needs a digestive aid, especially older people.

- **Lead and other toxic metals.** Lead poisoning is well known for causing a type of anemia that can be fatal. Hidden lead toxicity may be responsible for the so-called **anemia of chronic disease.** This is seen commonly with cancer and other degenerative diseases. Elevated lead is often not revealed on any tests until it is eliminated from the body using a nutritional balancing program or some other method. Lead is often hidden because it is deposited deep within bone marrow and other inaccessible areas of the body. One or more years may be required to mobilize hidden lead with nutritional balancing science. Chelation therapy with EDTA and other drugs only removes more superficial lead deposits, in general, and unfortunately also removes essential minerals such as calcium and zinc.

- **Combination anemias and other blood disorders.** Toxic metals such as cadmium, mercury and others may also affect the bone marrow and interfere with zinc or copper metabolism. This occasionally causes unusual types of anemias and other blood problems that can leave doctors scratching their heads. As health improves, these unusual blood disorders often improve on their own without other treatment.

**Other vitamin and mineral imbalances associated with anemias include:**

- **Vitamin C deficiency may interfere with iron absorption.**
- **Vitamin E deficiency affects the stability of the red blood cell membranes.** Low vitamin E also causes a macrocytic anemia with shortened lifespans of the red blood cells.
- **Copper deficiency can impair iron absorption and incorporation of iron into hemoglobin.**
- **Zinc deficiency can cause a higher copper, which, in turn, interferes with iron metabolism.**
- **Vitamin B6 deficiency can inhibit synthesis of the heme portion of the hemoglobin molecule.**
- **Rarely, excess zinc intake can interfere with iron absorption and cause a copper deficiency.** It also decreases copper and iron levels in the liver. This can affect the incorporation and release of iron from liver ferritin. It may also increase the fragility of red blood cells.

**Other causes for anemias.** These include internal bleeding, most commonly seen in older people who use non-steroidal anti-inflammatory drugs for pain such as aspirin, ibuprofen, Tylenol, Aleve and the others. These drugs damage the stomach lining and cause chronic internal bleeding in thousands of people. Chemical poisoning due to pesticide exposure or something else will occasionally cause unusual blood disorders. Nutritional balancing programs can slowly remove the chemicals once exposure has stopped. Leukemias are discussed in Chapter 35 with cancers.
Debra, 34, came for help because she was unable to become pregnant, in spite of many visits to fertility clinics. She was also fatigued, frequently nauseous, constipated and had recently had a miscarriage. She suffered from premenstrual syndrome, hair loss and chronic vaginal yeast infections, for which she had tried many anti-candida regimens. Her initial hair analysis revealed a copper level of 22.6 mg% (normal is 2.5 mg%). I advised Debra not to get pregnant until the copper level was corrected. Otherwise, she was likely to experience severe morning sickness and possibly other complications of pregnancy due to very severe copper toxicity. She reluctantly agreed to wait.

Two years later Debra’s copper was down from 22.6 to 9.4 mg%. She reported no more yeast infections and much better energy. She also became pregnant at this time. She experienced nausea throughout her pregnancy, but went to term and delivered a healthy baby.

A year later Debra contacted me because her hair and her baby’s hair were falling out. Hair loss is often associated with copper toxicity. A new hair analysis revealed that the copper level had risen to 18.4 mg%. One reason for this may have been that Debra was told by her doctor to continue taking her prenatal vitamin that was loaded with copper. I suggested discontinuing the vitamin, and I put her back on a regimen to balance her entire body chemistry. She was breastfeeding her baby at the time. Soon after she began this new program and stopped her incorrect vitamin supplement, both hers and the baby’s hair stopped falling out.

Case #2. Scott, age 45, had multiple seizures daily for thirty years that had not responded well to any form of treatment. He had tried medication, nutrition, chiropractic, homeopathy and other therapies. His entire life and that of his wife revolved around preparing for and handling his daily seizures. His first hair analysis revealed a four lows pattern and excessive mercury. Everyone with four lows also has hidden copper, another mineral often associated with epilepsy.

It is rough going for Scott at times, because taking even one tablet of a nutrient that dislodges mercury, for example, can trigger an increase in seizures. Other toxic conditions may also be involved that upset his delicate system. I have had to change the program over the phone a number of times. However, after three years of working together, seizures activity is decreased, though still present. Scott is also much happier and healthier in other ways as well.
REPRODUCTIVE DISORDERS

Zinc and copper have much to do with reproductive health. Zinc is considered a *male mineral* because men need more of it, though women certainly need it, as well. Copper is called a *female mineral* because it plays a more important role in female fertility and in all female organ conditions. The fascinating connection between these two minerals and reproductive activity is explained more in Chapter 15. Sexual dysfunctions and aspects of nutritional balancing is a large topic discussed in Chapter 41. Sexually transmitted diseases are so subtle and common today that they can be impossible to diagnose and may cause many chronic and unusual symptoms in younger people, in particular.

Sexual and reproductive conditions may have a strong psychological component. For example, many children are abused sexually in very subtle ways that will never be discovered just by talking about one’s feelings. The cause may be very subtle interactions between young children and their mothers and fathers, and perhaps siblings. While these imbalances can be corrected, it can take sometimes a few years of nutritional balancing therapy and other natural therapies, or even longer to slowly bring up various issues related to the reproductive organs.

In addition, all women, and some men, are very delicate creatures and the usual male-female interactions as teens and young adults can have quite severe consequences for this area of the body. In most women, for example, it is tense and often disfigured or distorted by age 30 or so due to various tensions that arise and remain in the pelvic area and the hips. Men can suffer such problems as well, which are only made worse by their nutritional and glandular imbalances.

**Women under stress.** Stress is intense today for most women. Traditional roles for women are changing. With this come new challenges and new expectations. While this may be politically incorrect to say, hair analysis demonstrates that women are different than men in terms of their energy level and how they tend to handle life and stress. When women assume the roles of men, it stresses their bodies even more. These women often “burn out” and develop adrenal exhaustion, depression and other serious symptoms.

In part for this reason, women today take most of the anti-depressants and other stress-related drugs in America and around the world. This is a serious issue because all drugs remain in the body and are passed on to the fetuses during pregnancy. Therefore, women are harming not only themselves, but in many cases they are damaging the next generation of babies by using these harmful substances with impunity.

In general, women require more rest, more peace and quiet, and more time with people than men. Someday soon I hope our society will realize this before most of our children develop ADD, autism and other serious disorders. If I seem hard on women, it is only because they bear the next generation of children. At the rate we are going, soon there won’t be any healthy ones. This is a truly sad situation in America and around the world.

COPPER AND THE FEMALE REPRODUCTIVE SYSTEM

Copper imbalance is present in most, if not all female organ conditions. I am surprised that copper is not mentioned more frequently in this connection. Copper levels in the body tend to rise and fall with estrogen levels. Excessive copper may impair the hepatic detoxification of estrogen, allowing higher levels of estrogen to remain in the blood. Other mechanisms must also
be responsible for the link between copper and estrogen levels, though I have not seen them explored in any medical articles. Common causes of copper imbalance include:

- **Physical or emotional stress.** This affects the adrenals and tends to lower zinc.
- **Birth control pills and patches, and copper intra-uterine devices.** I consider these birth control methods quite insane due to their possibly lethal side effects.
- **A slow oxidation rate and especially adrenal exhaustion.**
- **Widespread zinc deficiency in food.** This is discussed in Chapter 15.
- **Vegetarian diets are usually very low in zinc and higher in copper.**
- **Other sources of copper.** These might include water pipes, fungicides, pesticides, and bathing in swimming pools and/or hot tubs treated with copper algicides.
- **Cadmium and lead toxicity, which can lower zinc levels and cause a low zinc/copper ratio.**
- **Congenital high copper.** Many children are born with high copper due to the nutritional imbalances of their mothers.

**Conditions related to copper imbalance.** A partial list of reproductive disorders that experience indicates are related to copper includes premenstrual syndrome, estrogen dominance, dysmenorrhea, amenorrhea, polycystic ovaries, endometriosis, uterine fibroids, ovarian cysts, yeast infections, miscarriages, morning sickness, toxemia of pregnancy and post-partum depression. Symptoms of many of these and others improve easily when the body chemistry is balanced. Some conditions respond quickly, such as hot flashes, most often without the need for hormones. Others, such as uterine fibroid tumors and ovarian cysts, take much longer to respond. Below are details on a few of them.

**Premenstrual syndrome or PMS.** This is almost a pure copper toxicity syndrome. Before the menstrual period, copper and estrogens rise in the blood and in the tissues. This tends to raise the sodium/potassium ratio on a hair analysis in most instances because this is the action of copper in the mineral balancing system. A rise in copper also tends to slow the oxidation rate in some cases by raising calcium and lowering potassium. The exact changes vary with each person. In a few cases, the sodium/potassium ratio declines, causing a different set of premenstrual symptoms. This appears to be rare, however. Different forms of PMS are discussed by Catherine Dalton, MD and others who have written about it in depth.

Symptoms of tension, headaches, acne, fatigue, sleep problems, breast tenderness and swelling, weight gain, moodiness or anger are similar to the symptoms of elevated tissue copper. If symptoms are severe, here are simple changes in a nutritional balancing program that can help:

1. **For symptoms before the menstrual period:** About a week or so prior to the menses:
   - **Discontinue all products containing B-complex vitamins, as well as those containing adrenal and thyroid glandulars.** These products tend to raise the sodium/potassium ratio.
   - **Increase the amount of zinc and vitamin B6.** For a week or so, one can safely take up to 120 mg daily of zinc and up to 1000 mg daily of vitamin B6 or pyridoxine-5 phosphate.
   - **A day or so after the period arrives, go back on the regular nutritional balancing program.**
2. For menstrual cramps, if the above does not help:

- Rest more, making sure you nap every day in addition to getting plenty of sleep at night.
- To relax the muscles, add extra calcium and magnesium to your program.
- If blood clots are a problem, eat more cooked vegetables. This may help by increasing your intake of vitamins C and K. Most greens are rich in these vitamins.
- When cramps subside, be sure to return to the regular nutritional balancing program.

3. For symptoms with the period. For the first day or two of the menstrual flow, some women experience extreme fatigue and perhaps depression. This can be related to the drop in estrogens, progesterone and copper that occurs with the menstrual period. Do the following:

- Stop taking all zinc and vitamin B6, since these lower copper.
- Increase your intake of vitamin B-complex, and adrenal and/or thyroid glandulars.
- Possibly, add copper at about 2 mg/day or a product from Endomet Labs called Limcomin at 1-1-1 or even 2-2-2 if the situation is severe.
- After two or three days, one can usually return to the regular supplement program.

Eventually, both premenstrual and post-menstrual symptoms usually go away as the hormone balance improves and general body chemistry becomes stronger and more balanced.

**Herbs and hormones for PMS.** Dr. Eck preferred not to use natural progesterone or herbal remedies for PMS. These may work, but often delay deeper healing since they are somewhat toxic and they can unbalance general body chemistry. However, they are often better, if needed, than birth control pills, anti-depressants, Tylenol and other drugs used for PMS. For optimum health, especially avoid the birth control pill and patch, and anti-depressants for PMS.

**Amenorrhea and irregular periods.** Stress and nutritional imbalances cause many young women to stop menstruating or have very irregular periods. This is common in female athletes and some high school and college girls. These problems go away, providing the young woman is willing to rest and sleep more, eat better and take a few targeted nutritional supplements to balance her body chemistry.

*Moon time.* As health returns, most women’s periods will align with the full moon. This is the correct time for the menstrual period, according to many ancient sources.

**Heavy menstrual periods.** This is often caused by a subtle hormone imbalance. It should correct in time. However, it may cause a young woman to lose a lot of nutrients and can therefore slow progress on a nutritional balancing program. A remedy to try if the problem continues more than a month or two while on a nutritional balancing program is to add black cohosh to the program. This older herbal remedy is not recommended often, but this is one case where it may be helpful.

**Infertility.** This is epidemic in Western nations and should be no surprise. Women’s bodies are in such poor health, often despite a beautiful exterior, that pregnancy is actually dangerous and unwise. Fertility drugs are a poor answer. They are dangerous for the mother and may cause extremely unhealthy children. Restoring fertility naturally is easy in most cases. It
may take a few months to a year or more, depending on the state of health of the woman and her partner. Nutritional balancing also offers many other benefits. The most important is far better overall health for both mother and usually the child as well. Pregnancies and births are also often easier and much safer.

**Menopausal symptoms.** Menopause is not a disease, though it is too often treated that way. It is a signal that one is not fit enough to bear children any more. Menopause can reverse on a nutritional balancing program as a middle-aged woman regains her youthful vitality. This is disconcerting to some women, but it should not be. It simply means that she is producing more hormones and her body can now handle the stress of pregnancy better. The use of hormone replacement products for menopausal symptoms is not needed and quite insane in most cases. Restoring better health with nutritional balancing programs usually takes care of these symptoms easily, often within a few days to a few weeks.

**Symptomatic remedies for hot flashes.** One can use Thyro-complex from Endomet Labs at a dose of 1-1-1 or up to 3-3-3. If this is not effective, add chelated boron, about 3 mg up to 3 times daily. If this is not adequate, another product from Endomet Labs called Ova-adren often helps. The dosage is 1-1-1 or up to 3-3-3. I suggest these remedies before thinking about hormone replacement or phytoestrogen-containing herbs.

**MEN’S HEALTH CONDITIONS**

**Zinc and men’s health.** Zinc deficiencies cause or contribute to most men’s health conditions such as prostate enlargement, prostatitis, erectile dysfunction, and prostate and other men’s cancers. Prostate cancer often responds well to natural healing methods including sauna therapy, Protocel and the Kelley metabolic cancer therapy. These are discussed in Chapter 35. Other causes of men’s disorders include adrenal exhaustion and toxic metal accumulation in the prostate gland, testicles and in other structures. Diabetes, even in a mild form, can also cause erectile dysfunction in some cases.

Older men will have a slower response, in general, as more time is needed to detoxify the body and replenish nutrients. Recall that the zinc and copper levels on a hair mineral analysis are not the correct ways to judge zinc and copper status or a need for these minerals.

**Testicular pain on nutritional balancing programs.** Eliminating toxic metals from the testicles can result in temporary, but at times intense testicular pain. This is harmless and usually passes within a few hours to a day. Chapter 41 discusses other sexually-related disorders.

**KIDNEY AND BLADDER CONDITIONS**

Dr. Eck placed emphasis on the kidneys and frequently suggested a kidney support formula to help remove toxic metals. In Chinese medicine, the kidneys are considered the source of the chi or vital energy. They are closely related to the activity of the adrenal glands. Causes of kidney conditions include the presence of toxic metals, particularly mercury, cadmium and nickel. These are known to accumulate in the kidneys. Even some difficult conditions such as kidney stones, cysts, infections and renal failure may respond very well to nutritional balancing.
Assessing kidney activity. Hair analysis is often a much more sensitive indicator of kidney stress than standard blood or even x-ray exams of the kidneys such as pyelograms. Hair analysis indicators for kidney imbalances include:

- A sodium/potassium ratio less than about 2. This is also associated with chronic infections, kidney cysts, which are common, and a tendency for diabetes that often affects the kidneys.
- Elevated toxic metals, particularly cadmium, mercury, nickel and lead.
- A sodium/potassium ratio greater than about 15. This can indicate inflammation or other kidney problems causing sodium retention or potassium loss.
- A very slow oxidation rate may indicate somewhat compromised kidney activity.

Frequent urination. If the volume of urine output is high and urination is frequent, one must rule out diabetes. Urination is usually heavy at night if diabetes is present, but not necessarily. Other reasons for frequent urination are less important and include:

- Toxic metal or toxic chemical elimination through the urine that irritates the bladder. This occurs during nutritional balancing programs, at times.
- A chronic infection may irritate the bladder or urethra.
- A ‘nervous bladder’, which means the bladder signals a need to empty before it is full. This occurs somewhat more often in fast oxidizers and those with sympathetic dominance pattern.

Kidney stones. I am somewhat amazed that a nutritional balancing program can usually halt this painful and common condition. Here are comments about kidney stones:

- Nutritional balancing can often help even when the condition is longstanding. The program need not be altered in any special way when kidney stones are present.
- Calcium supplements do not worsen kidney stone formation, and are often needed.
- No single hair analysis pattern appears to correlate well with kidney stones.
- Existing stones will slowly dissolve and will eventually pass, causing the familiar symptoms of kidney stones. This is to be expected and is not a problem. If possible, a hospital may be able to break up the existing stones in the kidneys with ultrasound to prevent passing them.
- If a stone passes, one may relieve symptoms by taking extra magnesium and vitamin B6.

Kidney and bladder infections (nephritis, cystitis and urethritis). Most cases are easy to care for naturally. Causes include not drinking enough water, stress, fatigue, improper diets, imbalanced body chemistry and eating sugar or excessive carbohydrates. Sexually transmitted infections are everywhere, as are infections spread by swimming pools, hot tubs and even at public toilets. Rarely, other causes are important, such as an anatomical problem or a result of childbirth that may rarely be helped by corrective surgery.

Remedies for kidney and bladder conditions. For stubborn or recurrent bladder irritations and infections, and for some genital and kidney problems, try the following:

- Vitamin A. Adults can take about 100,000-200,000 iu daily for up to a week or so of natural vitamin A, or retinyl palmitate, but not beta carotene. Vitamin C in doses of up to 5-6000 mg daily may also help.
- Genital baths. These are often superb, and very safe. The procedure is in Appendix VI.
• A single reddish infrared “heat lamp”. This can be shined on the area for 10-20 minutes several times daily for a week or more safely. Move the lamp around and have it as close as possible to the area without burning yourself.
• Avoid ALL sugars, fruit and fruit juices in the diet and rest a lot more.
• Drink at least three quarts of spring or distilled water daily and perhaps more.
• Avoid all irritating supplements and foods such as spicy or peppery foods.
• Chapter 44 discusses other excellent natural remedies for infections of all kinds. If possible, do not use antibiotics, as most are quite toxic for the liver, and can damage the intestinal flora as well.

Flare-ups. During nutritional balancing programs bladder irritation may occur as toxic substances are eliminated through the kidneys and bladder. This may cause pain, burning and a frequent desire to urinate. More water is usually all that is needed and the symptoms will pass. Old bladder and genital infections will also flare up as they are healed with a nutrition program. Many people have chronic bladder and kidney infections, but are not aware of them.

THE IMMUNE RESPONSE AND INFECTIONS

Many doctors speak of the immune system. However, the body’s response to outside attack involves most body systems to some degree. Thus, I prefer to speak of the immune response, rather than calling it a system. Symptoms of an impaired immune response include recurrent infections, infections that won’t clear up completely, or a tendency to ‘catch’ whatever is going around. The immune response is also impaired in all cases of cancer, systemic yeast infection, chronic fatigue syndromes, chronic Epstein-Barr virus syndrome, Lyme disease if it is active, AIDS and many other chronic illness syndromes. Basic causes for infections include:

• Deficient diets and particularly a zinc deficiency. Zinc, along with many other nutrients, is critical for the immune response.
• Uncleanliness, including contaminated foods and beverages. Do not eat raw eggs, raw meat or any raw food in a restaurant. Always wash food, especially that which comes from outside the country. Do not drink water from a stream or lake without first boiling it.
• Lowered energy levels and fatigue. As energy improves on nutritional balancing programs, chronic infections are often brought from a chronic state to an acute state and then resolved. Sauna therapy and the use of coffee enemas causes this to happen much faster.
• Sympathetic dominance. This hair analysis pattern is associated with inhibition of the immune response due to excessive activity of the sympathetic nervous system.
• Overuse of antibiotics. Antibiotics are rarely needed. Their overuse has spawned many drug-resistant strains of bacteria, viruses and fungi. Also, antibiotics are toxic and can weaken the immune response, in some cases.
• Bioterrorism. One can deny this, but those who investigate it know that it is going on in America and elsewhere. Those perpetrating it would prefer we are not aware of it.
• Swimming in pools and worse, using hot tubs except perhaps your own. Pools and hot tubs are ideal breeding grounds for infections. Chlorine, bromine, copper, ozone, silver and other ways to sanitize hot tubs cannot kill all the pathogens. Perhaps 35% food grade hydrogen peroxide is best at 200-250 ppm.
• **Airplanes, theatres and other closed, crowded spaces.** If you are susceptible to infections, avoid these and other locations where you are forced to breathe stale, recycled air.

**Hair analysis indicators for acute and chronic infections include:**

• **A sodium/potassium ratio less than about 2.** The lower the ratio, the greater the tendency for an impaired immune response. A *double low ratio* pattern is an even more important indicator. It consists of a low sodium/potassium ratio and a low calcium/magnesium ratio.

  Several hair tests may be required before a low sodium/potassium ratio reveals itself. On an initial analysis, the sodium/potassium ratio may appear normal, but a calcium/magnesium ratio may be low. On subsequent retests, as the calcium/magnesium ratio normalizes, the sodium/potassium ratio may become low.

• **Toxic metals.** In particular, mercury and cadmium toxicity are often found in those with immune deficiency syndromes. These toxic metals replace zinc, selenium and other essential minerals in enzyme binding sites and damage the immune response in many subtle ways.

• **Copper imbalance.** The presence of any indicators for hidden copper imbalance often indicates an impaired immune response. Excessive copper interferes with zinc metabolism and destroys vitamin C. Copper is also needed for the electron transport system, a critical part of the body's energy system.

• **Slow oxidation.** All slow oxidizers do not generate adequate adaptive energy. This also contributes to immune response dysfunction.

• **Glucose intolerance.** This causes low energy and impairs the immune response. For example, insulin therapy has been used with success for people with cancer. The insulin assists the body to utilize sugar to generate the energy necessary to activate the body's defense systems. This is very different from insulin potentiation therapy or IPT. The latter is a cancer treatment involving small doses of chemotherapy. I do not recommend this cancer therapy. In my limited experience, it may produce fast results, but they do not last too long.

**AIDS.** This condition is actually one of the easier ones to handle with nutritional balancing. The only proviso is the patient needs to do the entire program including the diet, nutritional supplements, proper drinking water, coffee enemas, saunas and lifestyle changes. The sauna alone is excellent to boost the immune response. Several patients have been virus-free for several years without any recurrence of symptoms.

**Acute and chronic hepatitis.** These respond very well to nutritional balancing programs. Many people are amazed that chronic hepatitis C is not difficult to eradicate by improving the immune response of the body. I consider chronic hepatitis C just another opportunistic infection. Iron toxicity is always a factor in hepatitis. The use of coffee enemas is excellent and sometimes crucial for healing hepatitis, in part for their ability to help mobilize excess iron from the liver.

Symptomatic remedies that may be helpful include high-dose vitamin C, even intravenous vitamin C if all else fails. A treatment that does NOT work well, though it is good for other infections, is intravenous hydrogen peroxide. This is because the peroxide does not clear the iron from the liver, as do vitamin C and nutritional balancing programs.

**Candida albicans or chronic yeast infections.** This is almost universal in modern America, in particular. The causes include too much sugar in the diet, copper imbalance, an
overly-alkaline intestinal tract, sluggish bile flow, improper bowel flora, and a weak and depleted body chemistry. Slow oxidizers are particularly prone to all fungal infections, which are more cold or yin.

Symptoms vary from none at all to fatigue, cravings for sweets or starches, pain between the shoulder blades, diarrhea, bloating, intestinal gas, brain fog, food sensitivities and possibly others. Nutritional balancing works much better and more permanently than most other anti-candida regimens because it addresses the deeper causes, not just the yeast organisms, which are mainly opportunists in the intestines. The yeast problem almost always goes away on its own, without the need for anti-candida remedies or drugs.

In rare cases, natural anti-candida remedies are helpful for a while, until the body can control the yeast overgrowth itself. Garlic capsules or caprylic acid work excellently in most cases, but are rarely needed. Others include colloidal silver, bee propolis and for some uses, tea tree oil. Prescription anti-fungal drugs such as Nystatin and Nizoril are quite toxic and I have never needed them. They should be used only as a very last resort and are probably little if any better than natural anti-fungal remedies.

Flare-ups or retracing of infections. All infections can flare up during nutritional balancing programs as they heal. Chapter 45 discusses this topic in more detail.

Parasites. These are very common and cause varying degrees of discomfort and illness in most people. Liver flukes, borrelia (which causes Lyme disease) and trichina cysts and worms are almost universal. Lyme disease parasites come from tick bites, though they can be spread easily by other means, even dirty toilet seats. Trichina comes from ingesting or even handling any products from pigs, including most sausage, lard in tamales and, of course, pork and ham. Other very common parasites are the various species of amoebas, especially among Mexican immigrants and others from tropical nations, in particular. Other common parasites are round and flat worms of various types such as hook worms and tapeworms.

Most parasites live in the intestines, though most can burrow through the walls of the intestines and migrate throughout the body. Parasitic infections occur most often among people who have traveled outside America or Western Europe, or who work with or spend a lot of time with immigrants from Mexico or other undeveloped nations. In medical school, I was taught that 98% of these populations probably carry parasitic infections. Most are not bothered by it too much, but they can transmit it easily, even just shaking hands if the hands are not clean.

Correction. An unhealthy body is difficult to rid of parasites and other infections. A very healthy, yang body does not support their growth much at all. Parasite clearing with nutritional balancing is slow and steady. Medical drugs or herbal treatments are helpful in a few cases when the amount or type of parasites are severe. Otherwise, the gentle nutritional balancing method is much less toxic and works well using a combination of methods:

- **Very little raw food.** This removes an important source of infection, especially in restaurants.
- **No food products from pigs.** Unfortunately, all of these may be contaminated, even if well-cooked. For this reason, I suggest avoiding all pork, ham, bacon, sausage, lard and others. The only exception is porcine pancreatin, which appears very safe and is used in GB-3.
- **GB-3.** This product contains powerful pancreatic enzymes that can digest and destroy hundreds of different parasitic organisms in the intestinal tract. This is an important reason
why I much prefer this product over all the other digestive aids for everyone, unless they
cannot take it due to diarrhea or some other reason.

- **Making the body more yang.** Parasites thrive best in a yin environment. Nutritional
  balancing corrects this condition slowly in a person’s body, providing a person avoids most
  sugars, sweets, fruits, fruit juices, food additives, random supplements, and most herbs and
  drugs. Plenty of rest and sleep are also critical.

- **Improving vitality.** This helps the body fight off all parasitic and other infections.

- **Sauna therapy and coffee enemas.** Saunas heat the body a few degrees, which stimulates the
  immune response. Some parasites are also weakened or killed by a higher body temperature.
  Saunas also greatly improve circulation, which helps flush parasites out of hiding. Coffee
  enemas or colonics clean the colon and greatly assist liver detoxification.

**Drugs and other remedies for parasites.** When needed, medical drugs and herbs are
helpful, though most are somewhat toxic. A good product is called *Clear* made by the
Awareness Corporation. Another gadget that may help is the zapper recommended by Hulda
Clark. Her herbs, however, are too toxic and I have heard of too many problems with their use.

**Use of hydrogen peroxide as a disinfectant.** To prevent and even treat some infections,
an interesting method, especially in hot tubs and swimming pools, is to add about 200 ppm of
35% food grade hydrogen peroxide to the water. Hot tubs require about a cup per week, while
pools will require several gallons weekly. Food grade 35% hydrogen peroxide is available on
the internet. It must be handled with care, but is an excellent disinfectant. Otherwise, I suggest
avoiding hot tubs or pools due to the risk of sexually transmitted and other diseases that are
everywhere. They are easily spread in pools and hot tubs, no matter how much chlorine,
bromine, silver or other disinfectants are used.

**So-called autoimmune disorders.** This group of illnesses includes rheumatoid arthritis,
lupus, Hashimoto’s thyroiditis, scleroderma and several others. I am not sure if these are really a
separate class of diseases, as medical science asserts. They may simply be special cases of toxic
metal poisoning and tissue breakdown. They respond well to nutritional balancing programs in
many, but not all cases. Earlier cases are generally easier to work with.

**Multiple chemical sensitivity or MCS.** This was formerly known as environmental
illness. It is common and nutritional balancing is very helpful, providing the client is willing to:

- **Go through some healing reactions, which can be difficult for these clients.**

- **Do coffee enemas and use a near infrared sauna every day.** These can be extremely helpful,
especially if the person cannot take many supplements.

- **Tolerate occasional food and supplement reactions.** One must be willing to tolerate a few of
  these for a while. This may be discouraging. However, they will cease as health returns.

**COMMON NEUROLOGICAL DISORDERS - EPILEPSY OR SEIZURE DISORDERS**

Epilepsy or seizures is a serious medical disorder that often responds well to nutritional
balancing science. By correcting the causes, most epilepsy will be brought under permanent
control, usually without a need for medication. Causes for seizures include:
Chronic infection in the brain, perhaps indicated by a low sodium/potassium ratio.

- Necrotic or dead tissue, or other unusual lesions in the brain, perhaps indicated by imbalances in minerals such as selenium and zinc.
- Toxic metal accumulation, especially copper and mercury. However, others may contribute as well. The toxic metals can replace sedative minerals, such as calcium, magnesium and zinc. Copper and mercury may enhance excitatory neurotransmitter production.
- Very fast oxidation may cause some febrile or other seizures in babies and young children.
- Toxic chemicals can possibly cause seizures. Although they are not revealed on hair tests, nutritional balancing programs will slowly remove hundreds of toxic chemicals.
- Food chemicals can cause seizures. One must temporarily avoid the offending food. However, nutritional balancing can often reduce many food sensitivities.
- Other macromineral imbalances can cause seizures, such as very low calcium or magnesium.
- Other, rare causes of seizures include head trauma, chiropractic misalignments and brain tumors. These should be ruled out.

**Extra nutrients for seizures.** Due to the severity of the seizure problem, a larger supplement program may be better. One can add the following extra nutrients in most cases:

- **ICMN.** This product from Endomet Laboratories contains inositol, choline, methionine and niacinamide. This can assist liver detoxification and may have sedative effects as well. It contains methyl donors that may help relax the adrenal glands in complex ways.
- **L-Taurine, and extra vitamin B6 and magnesium.** These can also reduce seizure activity.
- **GABA, valerian and other products may also be helpful if the regular nutritional balancing program is not enough to control the seizures.** However, fewer supplements are best for restoring overall health and biochemical balance, so do not use extra products unless needed.

**HEADACHES**

Norman, age 65, suffered from migraine headaches for over 40 years. They would incapacitate him for several days at a time, in spite of using drugs, to which he had become addicted. He is a natural healing practitioner and had tried many kinds of therapies over the years. His hair analysis indicated extreme copper toxicity with a copper level of ten times normal. At first, I suggested just a diet and nutritional supplements, but this was not enough. Several years later, I convinced him to build himself a near infrared light sauna. This was the deciding factor. Norman is now off all medication and his headaches seldom recur.

Headaches are generally quite easy to resolve with nutritional balancing science, combined with chiropractic, postural correction, foot reflexology, and occasionally other tension release or other detoxification methods. Causes of headaches include:

- **Toxic headaches.** These are the most common ones and may be due to toxic metals, bowel or liver toxicity, constipation, toxins from infections, or lack of rest that impairs detoxification.
- **Copper imbalance.** These affects women more often, and occur more commonly before the menstrual period. They are often one-sided and migraine types of headaches.
• **Tension headaches.** These are due to poor posture and usually tension in the neck and back. They are also often secondary to nutritional imbalances such as low levels of available calcium, magnesium, potassium, zinc or perhaps other essential nutrients.

• **Allergic headaches.** Allergic reactions to food or food chemicals may cause headaches.

• **Chronic sinus congestion or infection.** This is a common cause of frontal headaches.

• **Blood sugar imbalance.** Allowing the blood sugar to fall too low often causes headaches.

• **Dehydration.** This affects detoxification and many other body functions. Often, more water or a different type of drinking water solves these easily.

• **Vision problems.** These include incorrect eyeglass prescriptions, a need for glasses, and eyestrain due to eye diseases, reading without enough light, squinting or other causes.

• **Retracing** during nutritional balancing programs can involve headaches. These usually pass quickly, although they can occasionally be severe. Coffee enemas or extra sauna sessions may be very helpful. The use of Tylenol or other drugs can prolong headaches.

• **Other.** One may need to rule out chiropractic or cranial misalignments, and more rarely vascular abnormalities, brain infections such as with parasites, or tumors.

**Correction of headaches.** Correcting the cause of the headache usually takes care of it quickly. For severe toxic headaches, bowel cleansing and saunas are necessary to rid the body of deeply-buried toxins. Other simple, safe remedies that I have found helpful include foot reflexology and Epson salt baths. Reflexology can be amazingly helpful, at times. When rubbing the feet, rub deeply all around the toes on both feet. One will often find tender spots that, when rubbed enough, can diminish the severity of a headache. Hot baths, especially with Epsom salts, relax the muscles and may promote detoxification.

**NERVOUS IRRITABILITY OR ANXIETY**

This condition is extremely common and is discussed in Chapter 38. It is usually easy to handle with nutritional balancing science.
Reinhold, age 67, fractured his ankle, which did not heal. A year later, in an attempt to assist healing, his doctor fused the bones of the ankle. However, this did not heal, either. As a result, Reinhold was restricted to a wheelchair. His first hair analysis revealed a zinc level of 11 mg% (ideal is 16-20) with a sodium/potassium ratio 0.9 (the ideal is 2.5:1). This low ratio indicates exhaustion and excessive tissue breakdown, the opposite of what is needed for healing. Also, cadmium was 12 times normal, lead was 8 times normal, mercury was twice normal, aluminum was 50 times normal and nickel was 6 times normal. These all can interfere with key enzyme systems needed for wound healing. Cadmium is probably the most harmful, interfering with zinc metabolism. The combination of low zinc and high cadmium is even worse, since adequate zinc is essential for protein synthesis needed for wound healing.

On a nutritional balancing program, Reinhold's pain decreased in a few weeks. The fracture and the fusion of the ankle healed, and he regained his ability to walk. His general health and strength also increased. Reinhold’s second hair analysis revealed even higher levels of mercury, cadmium and aluminum. Meanwhile, his zinc decreased to 8 mg % and his sodium/potassium ratio worsened to 0.2. On his third hair test, the toxic metals began to decline. However, the zinc decreased to 6 mg% and the sodium/potassium was still only 0.64. By this time, one year had passed. Reinhold was up and walking, with no need for even a cane. He had also changed emotionally. His family reported he is happier, more stable and gets along much better with others. Sadly, at this point Reinhold decided to stop the program. This is all too common that people stop a healing program because their immediate symptom improves, yet their body chemistry is still far from ideal.

DENTAL DISORDERS

Infections. Chronic and usually hidden dental infections often spew highly toxic bacteria and other chemical substances into the bloodstream. This, in turn, affects the entire body. Weston Price, DDS, a pioneer in nutritional approaches to illness, noted the impact of dental infections on general health in his classic book, *Nutrition And Physical Degeneration*. Joseph Issels, MD, a German cancer specialist, wrote that many cancer patients got well when all root canal-filled and other infected teeth were removed.

Sources of dental infections. These include 1) seemingly healthy teeth that may have hairline cracks or old fillings, 2) root canal-filled teeth, 3) cavitations or sites of former dental
procedures, and 4) possibly gum disease. However, the organisms involved in gum disease are not usually as toxic. These subtle, hidden infections are often ignored because:

- They may give few obvious signs or symptoms.
- They often do not show up on x-rays, so they are difficult to identify.
- Once found, they can be difficult to eradicate with standard methods.
- Most dentists are not trained to look for them.
- Many people ignore minor dental discomfort. They are often not aware of its significance and some don’t want to spend the money going to dentists.

**How to tell if a dental infection is present.** Possible clues include some pain or sensitivity. It is more likely if it is in a root canal-filled tooth or an area where you have had extensive dental work. X-rays might be helpful, but they must be read very carefully and they will miss some hidden infections. Dentists familiar with these infections may use other methods such as electroacupuncture or other devices to find them, but finding such a dentist is not easy.

**What to do about chronic dental infections.** They need to be resolved. Nutritional balancing, and particularly the continued use of the near infrared sauna, may help a lot. One must use the sauna for at least half an hour per session and move your jaw area as close to the lights as possible for 5 minutes at a time, which is simple to do. This may take care of some cavitations without surgery, and perhaps some infected teeth as well. With root canal-filled teeth, the tooth may need to be removed if it is infected. Some severe cavitations may require surgery to clean them out. Gum disease is discussed later in this chapter.

If antibiotics are recommended for dental procedures, I have found that high quality colloidal silver may work as well without the side effects of most antibiotics. One can take the silver by mouth and leave it in the mouth next to the infected tooth until it is absorbed. Be sure to take enough of a good product.

**TOOTH DECAY. Causes for dental decay include:**

- Lead toxicity. This is extremely common and weakens bones and teeth.
- Sugar consumption. Any at all, even fruit sugars, upsets calcium metabolism, according to the research of Dr. Melvin Page, DDS.
- Low available calcium. Most dairy products and other sources of calcium are cooked, which renders them less bioavailable. Raw, certified dairy products, along with fresh carrot juice, are excellent calcium sources.
- Deficiencies of other trace minerals. These include bioavailable copper, manganese, boron, zinc and perhaps several others.

**Fluoride treatments.** Please avoid this toxic dental procedure, especially for babies and young children. Parents must monitor their dentists to make sure about this. Children get too much fluoride already in their food, and especially in beverages.

**The use of water fluoridation.** Except for America and Great Britain, the entire world has abandoned adding toxic fluoride to their water supplies. Fluorides are extremely toxic substances that contributes to hip fractures, hypothyroidism and even cancer and birth defects. Their benefit for the teeth has been overstated and many studies show no benefit whatsoever. If you want extra fluoride, drink tea, which is naturally high in a more bioavailable form of this
mineral. I strongly suggest avoiding all fluoride in tooth pastes, mouthwashes and in your drinking water. This controversial topic is discussed in greater detail in Chapter 18, in an article at www.drlwilson.com and at other sites critical of water fluoridation.

MERCURY AMALGAM FILLINGS

The standard material used to fill cavities for the last 150 years is a mixture of mainly mercury and copper, along with some silver, cadmium and other metals. Some 50 million of these fillings are placed each year in America alone. The compound is called an amalgam. It is similar to an alloy except that the metals are mixed at low temperature. Amalgam dental fillings are one of the worst features of post-modern dental care. Problems with amalgams include:

- The intense toxicity of mercury. Mercury in any amount is very toxic. Each time one bites down on an amalgam filling, a small amount of mercury is squeezed out. It often moves easily to the nasal passages and into the brain, one of the organs most vulnerable to mercury toxicity.
- The metals separate out after a number of years, releasing mercury, copper and other toxic metals into the mouth.
- To place the filling, the tooth must be hollowed out, weakening it significantly in some cases.
- The filling provides no extra strength to the tooth, and cracked teeth are a common result.
- The filling is electrically conductive, which causes subtle problems in many people.
- The filling contains dissimilar metals. This can cause the production of random and often harmful electrical currents and even radio waves in the mouth, very near the brain.
- The metal filling is also likely to alter the acupuncture meridian that passes through it.
- Placing amalgams is very toxic for the dentist and all of his staff. It makes dentistry the most toxic branch of the medical profession, with shorter life spans and suicide problems as well.

Amalgam removal. If possible, remove all amalgams from your mouth as soon as possible, except if you have active cancer. A few tips and cautions in regard to amalgam removal are:

- All fillings need not be removed at once. If funds are limited, have them removed as you can afford it. Dental insurance may also pay for amalgam removal.
- If a holistic or biological dentist is not available or too expensive, any good dentist can do the work. Extra suction and a rubber dam to protect you from mercury vapors are excellent ideas. Some dentists also offer blood tests for allergies to various dental materials. This is great, but not needed in every case.
- Some people become ill during or after amalgam removal. I have observed that people on nutritional balancing programs tend to do well. Those on other nutritional regimens may not fare as well.
- Do not remove amalgam fillings if one has active cancer. This can be fatal. Wait until the cancer is definitely in remission.

Nickel crowns. Some years ago, crowns were made of about 75% nickel. They may be white or metallic in color. Unfortunately, nickel is highly toxic. It is still used in some dental wires and appliances. If your health is not improving on a nutritional balancing program, this
may be one reason. If you have dental crowns, try to find out if they made of nickel and, if so, have them changed as soon as possible.

**Novocain and other dental anesthetics.** Novocain is not a highly toxic substance. However, some people react adversely to it. It also remains in the body for years. On a sauna therapy program, several people have reported areas of the face becoming spongy and numb in the same location where Novocain had been injected, often years before. The numbness passed in a few days or less. This is an interesting example of a drug retracing reaction.

**Allergies to dental materials.** Before placing fillings and other dental materials in your mouth, some dentists suggest a blood test to check if you are allergic to certain dental materials. This is not required for most people. However, if you are very sensitive to metals, plastic resins and other materials, consider this option.

**Temporo-mandibular joint or TMJ problems.** Misalignment of the temporo-mandibular joints, just below the ears, can cause fatigue, headaches, neck aches, facial ticks, disturbed sleep and other symptoms. Stress on this joint is common. It may be due to generalized tension, an imperfect bite, missing teeth, dental appliances, accidents, poor posture or other causes. It may go away slowly with a nutritional balancing program. At times, other cause must be addressed.

**GUM DISEASE OR PERIODONTITIS**

Inflammation and often infection of the gums is very common today. Nutritional balancing will usually eliminate this problem, though it may take a while if the condition is chronic or severe. Symptomatic relief often occurs quickly using 35% food grade hydrogen peroxide and baking soda mixed together. This is far more physiological than mouthwashes that contain alcohol, for example, which irritates the gums. Another approach that works well for some people is the blotting technique. Dr. Joseph Phillips, DDS, developed this simple and inexpensive method many years ago. For more information about it, call the International Oral Health Society at (715) 839-9103. If these simple methods are used for gum disease, surgery should rarely, if ever, be needed.

**OSTEOPOROSIS**

Nutritional balancing can identify and correct hidden causes of this condition, which cannot generally be diagnosed by x-ray. They include:

- **Calcium deficiency.** Quality sources of calcium are difficult to find today, thanks to stupid laws that forbid the sale of certified raw dairy products. These laws are entirely politically motivated to help farmers whose milk is not clean and who therefore want all milk pasteurized. However, heating the milk damages the proteins and the availability of calcium in the milk products. Other sources of calcium are carrot juice, kelp, raw carrots, sesame seeds, almonds and a few other foods that most people do not eat in great enough quantity.
- **Biounavailable calcium and magnesium.** This occurs in most slow oxidizers. It is often indicated by a hair calcium level greater than about 80 mg%. The higher the hair calcium, the more likely some of it is precipitating out of the blood into the soft tissues. The body
then robs calcium from the bones to replenish the blood, slowly depleting the bones of calcium.

- **Low hormone levels.** Slow oxidation, in particular, is often associated with low levels of estrogen, progesterone, testosterone and other essential adrenal, testicular and ovarian hormones. One of the actions of these hormones may be to protect one from osteoporosis.
- **Low levels of hydrochloric acid.** This leads to general malnutrition and specifically impaired calcium absorption, which requires adequate stomach acid.
- **Copper imbalance.** Copper is needed to retain calcium in the bones. Both fast and slow oxidizers often have a copper imbalance.
- **Manganese, zinc, boron, vanadium** and other minerals all play a part in bone health and in the prevention of osteoporosis. Most diets are deficient in these minerals.
- **Lead toxicity.** This is an important cause of osteoporosis. Lead replaces some calcium in the bones, weakens them and often some lead leaches out of the bones as one ages. Lead will not show up on DEXA scans because it is radio-opaque. It will also not be revealed on most toxic metal tests, including most initial hair analyses, because it is hidden deep in the bones.
- **Fluoride poisoning.** Fluoride is a common contaminant in our food, water, and even in the air in some areas due to smokestack emissions. Fluoride is also radio-opaque, so it can skew x-rays of the bones. However, it weakens the bones and is associated with a greater incidence of hip fractures, for example.
- **Tissue catabolism.** A low sodium/potassium ratio and/or a low phosphorus level can indicate some breakdown of the protein matrix of the bones that holds the calcium in place.
- **Other toxic metals such as cadmium, arsenic or mercury.** These may also displace some calcium in the bones, leading to weakness. They can also inhibit protein synthesis and impair general health.
- **Sedentary lifestyles and lack of exercise** play a role, but less so if body chemistry is balanced.
- **Celiac disease or gluten sensitivity** is an occasional hidden cause of osteoporosis. See page 314 for more on this important condition.

These causes are slowly corrected on a nutritional balancing program. To hasten correction, an excellent product is microcrystalline hydroxyapatite complex or MCHC. This bone extract may help replenish minerals faster. MCHC may be given to all post-menopausal women or anyone else at risk of osteoporosis in place of calcium chelate, citrate or others, as it may be slightly more helpful. If one substitutes MCHC for Paramin, which is fine, one must also supplement with magnesium because MCHC does not contain much magnesium.

**ARTHHRITIS**

The joints are bathed in a fluid that lubricates them and repairs wear and tear damage that occurs every time the joint is used. However, circulation is poor and stress is high on some joints, which often causes inflammation. Medical doctors basically classify arthritis as osteoarthritis or rheumatoid arthritis. Osteoarthritis is characterized by bone spurs and calcium deposits. Rheumatoid arthritis is a more destructive process, in most cases, with fibrous tissue growing into the joints, often causing deformity. Pain also can migrate, regress and advance. A properly interpreted hair analysis can identify the following possible causes for arthritis:

- **Bioavailable calcium may move out of the blood and deposit in the joints.**
• **Toxic metals.** These may not be revealed on any type of test.

• **Sluggish adrenal activity.** This can cause low levels of anti-inflammatory steroid hormones such as cortisol and cortisone. If this is the cause, symptoms may be worse upon awakening or after sitting still. They improve with activity and then may worsen again in the evening as the adrenal glands become more fatigued.

• **A low vitality level.** This impairs the ability of the body to regenerate joint surfaces in response to normal wear and tear. This is a problem for those with a very slow oxidation rate or other indicators of low energy such as a low sodium/potassium ratio or a low phosphorus.

• **Inflammatory patterns.** These include a high sodium/potassium ratio or iron toxicity, for example. Iron plays a role in many cases of arthritis. Elevated manganese or aluminum levels indicate hidden iron toxicity in many cases.

• **Low phosphorus on a hair analysis.** This indicates low vitality and perhaps impaired protein synthesis that inhibits regeneration of joint surfaces.

• **Zinc and other nutrient deficiencies.** Zinc is needed for the synthesis of protein structures including joint cartilage. Zinc is also needed to make all the digestive enzymes so that one can absorb most nutrients. Zinc, bioflavinoids and omega-3 fatty acids are also important anti-inflammatory nutrients that are often in short supply in those with any inflammatory condition.

• **Protein catabolism.** A catabolic state of body chemistry often affects the joints. A hair analysis may reveal a low sodium/potassium ratio or a low phosphorus level. Fast oxidation with a low sodium/potassium ratio is a pattern for rheumatoid arthritis, according to Dr. Eck.

• **Trauma.** The joints are relatively delicate structures. They are damaged by falls, car accidents, poor posture, too much weight on them, too much stress due to athletic activities or heavy lifting, and by spinal misalignments and other chiropractic and soft tissue damage that affects their alignment and mobility. Often weight is distributed unevenly on the joints and this alone will cause arthritis. Poor posture and general tension commonly cause neck strain, for example.

• **Food reactions and other allergies.** Reactions to foods and other substances can affect the joints. Citrus fruits, especially unripe citrus, and the nightshade family of vegetables (tomato, potato, eggplant and all peppers) often cause or worsen joint pain. In some people, red meat may increase inflammation due to its higher iron content.

• **Infections and other toxins.** These causes are less common, in general. Tuberculosis and other infections can destroy the joints, as can certain chemical toxins.

• **Retracing.** During nutritional balancing programs, joint pain may temporarily occur as toxins are dislodged from the joints and surrounding tissues.

Nutritional balancing programs are superb for assisting in the correction of many types of joint pain. In particular, the near infrared sauna’s gentle heat dramatically improves circulation, and the infrared penetrates into the joints to enhance healing. Cleansing the colon assists with the removal of toxic substances that often contribute to joint problems.

**Fibromyalgia.** This painful condition is an inflammatory condition of the joints and muscles, in particular. It usually occurs in slow oxidizers with copper toxicity. Copper imbalance is often related to inflammation and pain in the soft tissues of the body. Emotional factors such as fear and loneliness may also be important contributors, along with toxic metals such as mercury. Fibromyalgia can respond well to nutritional balancing. The adjunctive
therapies including the Roy Masters meditation, sauna therapy and coffee enemas or colon cleansing are often extremely helpful and are often required to reverse fibromyalgia.

**Muscle cramps and spasms.** Hair analysis patterns seen with muscle cramps include:

- *High or low calcium and magnesium levels.* High levels often reflect some degree of bioavailability of these minerals. Low levels often reflect deficiency states. Magnesium is also depleted by exercise, which can cause muscle tightness and cramps.
- *Low sodium and potassium levels* are also associated with muscle cramps. Potassium is required for muscle relaxation, and low levels of these minerals reduce the bioavailability of calcium and magnesium.
- *Toxic metals* are frequently also associated with muscle cramps.
- *Low energy and poor circulation, as found in the sympathetic dominance pattern.*
- *Retracing.* Muscle cramps may occur during nutritional balancing programs as the body eliminates toxins from the legs, in particular. They are usually mild and pass quickly.

Besides a nutritional balancing program, severe muscle cramps or tightness may be helped by extra calcium and magnesium, vitamin E, niacin, ginkgo biloba and techniques such as massage and warm baths with Epsom salts. More saunas and other methods may also help.

**Tendon and ligament problems.** Low energy states, inflammation patterns, copper imbalance, and manganese deficiency are often associated with ligament and tendon problems such as tendonitis and bursitis. Muscles that are weak or inflamed due to low energy, toxic metals and other causes do not pull evenly, leading to structural imbalances and chiropractic misalignments. Chiropractic adjustments may not hold in people with these imbalances.

**Non-union of fractures and slow healing.** Wounds and fractures that are slow to heal respond extremely well to nutritional balancing. Many imbalances discussed in this book will affect the rate of healing of wounds or injuries. Improvement is often very rapid when the correct nutrients are provided and when the diet is appropriate for the oxidation type. Refer to the case at the beginning of this chapter for an example of how healing can be facilitated.

**NEUROMUSCULAR DISEASES**

These include Parkinson’s disease, multiple sclerosis, amyotrophic lateral sclerosis, scleroderma, sarcoid disease, lupus and perhaps a few others. Toxic metals and mental exhaustion tend to be involved with all of them except sarcoidosis. Nutritional balancing can help with all of them, especially if caught early. In late cases, as with some other diseases, a person’s vitality declines so much that reversing the process is more difficult. Here are some general principles that may help practitioners who deal with neuromuscular and other chronic illnesses related to them:

- *Restoring vitality is all important.* This means more attention to the diet, the right type and amount of drinking water, and all aspects of the lifestyle such as plenty of rest and sleep.
- *Restoring oxygenation and hydration of the body are often essential to build vitality.* For this reason, oxygen therapies may be helpful such using an ozone air purifier in the bedroom,
ozone steam baths, soaking in ozone, baths with a cup of 35% hydrogen peroxide, deep breathing exercises, drinking oxygenated or ozonated water or even breathing concentrated oxygen for a few minutes to a few hours daily. See the Resources in Chapter 49 and Appendix VI for more about these therapies.

- **Improving digestion with a digestive enzyme product such as GB-3 is essential, as much of it can be comfortably tolerated up to about 3 per meal.**
- **Other areas that may need attention are food sensitivities, removal of all dental amalgams and nickel wires and dental appliances.** Some crowns were made of 75% nickel and these might need replacing as well.

**Parkinson’s disease.** Mercury, lead or manganese toxicity often play an important roles in this condition. Constipation has been reported to play an important role in some cases. The symptoms of manganese toxicity closely resemble the symptoms of Parkinsonism. Early cases can respond extremely well with nutritional balancing.

**Multiple sclerosis.** Mercury toxicity, sympathetic dominance pattern, gluten sensitivity and perhaps a more serious vitamin D deficiency appear to always be involved in this condition. In addition to extra vitamin D, I suggest adding Renamide 3-3-3 and a food-based selenium 100 mcg three times daily for these clients, to help with mercury and other metal toxicity. Early cases often respond excellently to nutritional balancing. More advanced cases present more difficulty, often because vitality is very low.

Interesting qualities of **sympathetic dominance pattern** are present with multiple sclerosis, even if this hair mineral pattern is not revealed on early mineral tests because it is masked by other imbalances. These qualities include 1) heat sensitivity and 2) a relentless type of mental efforting. The particular type of mental drive may be associated with greater intelligence mixed with a strong will, and a desire to overcome situations using the will.

These same traits are also found in many multiple sclerosis patients. They unfortunately cause this illness to be more difficult to heal since excessive sympathetic nervous system activity severely impairs all healing. If, however, a person who has MS learns about the qualities of sympathetic dominance pattern, this may assist a process of letting go mentally that is often extremely helpful in these cases to relax the nervous system and allow full healing to occur.

**Lupus and amyotrophic lateral sclerosis or ALS.** Those with lupus can do extremely well with nutritional balancing programs, even more advanced cases. Those with early amyotrophic lateral sclerosis, or Lou Gherig’s disease, can also respond well with nutritional balancing, especially when they add the detoxification procedures such as sauna therapy and coffee enemas or colonic irrigation.

**Scleroderma.** This can be mainly a copper toxicity syndrome and may involves a bioavailable manganese deficiency. It can respond well to nutritional balancing science if a person will do the entire program and stay with it for a few years.
Karrie, age 40, visited the emergency room several times each week with intractable head pain that required intravenous pain killers. These episodes had occurred for several years since a brain surgery to repair an aneurysm. Ten years before, she had also contracted Hodgkin’s disease that was treated with chemotherapy. I was not too hopeful that I could be of help. However, Karrie responded excellently to a nutritional balancing program, along with many colonic irrigation treatments. Within a year she had stopped all visits to the emergency room. Her neurologist kept me informed of her progress. She was only on a nutritional balancing program for about two years and has remained fairly pain-free for the past 12 years. The program was done completely ‘long distance’ by mail and telephone.

SENSORY CONDITIONS

Vision disorders. Zinc imbalance is involved in most eye disorders. It is especially important for the retina and fovea. Zinc deficiency can cause inflammation, irritation, and oxidant and other damage to the eyes. Eye doctors are the only physicians that often prescribe zinc, along with anti-oxidants, to their patients. Perhaps this is because they can observe the improvements clearly when supplements are given. Eye conditions also have to do with liver toxicity, according to ancient Chinese acupuncture theory.

Eye infections respond well to nutritional balancing. Chronic ones may take longer. A single reddish heat lamp can be shined on the closed eyes for a maximum of five minutes at a time, several times daily. The gentle penetrating infrared rays may help resolve eye problems painlessly and safely if used with a nutrition program.

Nearsightedness or myopia, farsightedness or presbyopia, astigmatism and related visual disturbances are often related to very chronic stress and perhaps nutritional imbalances as well. They may respond a little to nutritional balancing, but these tend to require other approaches for correction.

Cataracts, glaucoma, retinopathies and macular degeneration are more chronic and degenerative eye diseases. I have not worked with enough cases to say how effective nutritional balancing is for these conditions. More anti-oxidants such as lutein and zeaxanthin should be added to the program for these and other chronic eye conditions of these types. The response will likely be slower because, in most cases, the person is older and in poorer overall health when these conditions develop. Also, the eyes are related to liver toxicity, which must be handled first. This aspect of correction alone may require several years of nutritional balancing.
THE EARS - HEARING AND BALANCE DISORDERS

Chronic ear infections. These are extremely common. The main cause is childhood ear infections treated with antibiotics, or just infection that never resolved fully. Symptoms can be vague with some minor pain, itching, wax buildup, a slight discharge, some hearing loss, ringing in the ears, dizziness, or there may be no symptoms at all.

Chronic ear infections may become active again as a person’s vitality level declines with age. Nutritional balancing programs can help by strengthening the body, increasing the vitality and often by bringing up and resolving old infections. However, this can take a number of years on a program, at times, because some ear conditions are deep inside and quite chronic. To speed the healing of any ear condition, a single reddish heat lamp may be aimed at the ear for no more than 5 minutes at a time, 5 or 6 times daily or once every 2 hours. This can be extremely helpful for a wide variety of ear-related problems.

Hearing loss. This is common as people age. Causes include impaired circulation due to arteriosclerosis, chronic ear infections, arthritis of the bones of the ear, or nerve damage. These problems may or may not respond to nutritional balancing programs, depending on the cause.

Tinnitus or ringing in the ears. This can be due to manganese toxicity, or possibly other causes. A recent finding is that excessive sexual activity among men seems to cause manganese deposits in the brain. This can cause tinnitus or hearing loss.

Dizziness, vertigo or balance problems. Chronic inner ear infection or perhaps metal toxicity may contribute to this common symptom. Reduced blood flow to the cochlea or nerve degeneration for some reason is also possible. The response to nutritional balancing is variable.

SKIN, HAIR AND NAIL CONDITIONS

Prevention. For best skin health, use only the cleanest, most non-toxic cosmetics and body care products you can find, and as little as possible, because almost all contain some less-than-ideal chemicals to place against the skin. Also, try to avoid exposing the skin to all harsh chemicals such as solvents, detergents, pesticides, and even most perfumes and deodorants. Also, baths, as a rule, are more toxic than taking showers due to chemicals in almost all tap water. Causes for skin rashes and other skin problems include:

- Zinc and copper imbalances. Zinc and copper play important roles in the skin.
- Infections. The skin is prone to many types of infections such as fungal, bacterial and others.
- General toxicity. In most people, the skin is one of the most congested and toxic organs. The body shunts many toxins to the skin where they do less damage to the body than elsewhere.
- Skin care products. Almost all lotions, shampoos, deodorants, cosmetics and other skin care products contain toxic chemicals.
- Clothing. Synthetic, and even some natural fiber clothing worn next to the skin will impart chemicals into the skin. Always wash all new garments before wearing them, especially if they have any odor or unusual texture. Also, if possible, wear only cotton or other natural fibers next to the skin. Ideally, seek out organically grown cotton or hemp clothing.
- Psychological stress. The skin may reflect a person’s stress level more than most other organs or systems of the body. This is an evolutionary mechanism to warn others of impending problems even if speech is not possible. It is also an aspect of body language.
• **Bathing in toxic tap water, swimming pools, hot tubs and other locations.** All tap water contains chlorine, toxic metals and often more harmful toxins such as fluorides, residues of pharmaceuticals and much more. Over time, these affect the skin tremendously.

• **Deficiency of the omega-3 fatty acids.** This common deficiency can cause dry and flaky skin in some people. Other nutrient imbalances such as an improper diet also may affect the skin.

• **Impaired elimination.** When the liver, kidneys, and bowel do not function properly, the skin works harder to eliminate toxins. Some skin conditions disappear as elimination improves.

• **Allergies.** These often affect the skin to some degree.

**Correction of skin conditions.** Nutritional balancing can often correct skin conditions in babies and children within days to a week or two. Babies, for example, often just need copper and zinc in the right ratio to correct eczema, diaper or so-called heat rashes that may be fungal in origin. Skin conditions in adults may take longer and can be among the most stubborn types of conditions. Fortunately, they are usually not serious or life-threatening.

**Daily sauna therapy is superb for many skin conditions.** The near infrared type of sauna is best, but any sauna is often somewhat helpful to cleanse the skin deeply and uproot infections. For example, acne can respond in a matter of days, even when it is of longstanding duration. I cannot recommend infrared sauna therapy highly enough for most skin conditions. Be sure to follow the recommendations in Chapter 44 and in the book, *Sauna Therapy*, for safety and for the best results. An exception is in cases of rosacea, as the sauna’s heat might aggravate it. This condition is slower to heal with nutritional balancing.

**Toenail fungus.** This stubborn condition responds to various remedies, including perhaps therapy with a single reddish heat lamp. Shine it on the toes several times daily for 5-10 minutes at a time, as hot as one can comfortably tolerate. Be careful not to touch the heat lamp to your toes, as it is extremely hot. Continue this therapy for at several months on a daily basis.

**General symptomatic remedies.** In addition to a nutritional balancing program, excellent skin remedies include aloe vera gel or lotion, or a cut leaf from an aloe plant. Another good one is zinc oxide ointment from the drugstore. For killing fungus and other skin infections, a good quality colloidal silver or tea tree oil may work. The latter is irritating and a little toxic, so use it carefully. A single reddish infrared heat lamp is excellent for some skin problems. For skin cancers or even suspicious-looking moles, a native American herbal remedy called *black salve* is often superb. Be sure to follow directions exactly. This is available at some health food stores or on the internet.

**Healing reactions and the skin.** During nutritional balancing programs, temporary skin eruptions are very common. They occur because most toxins can be removed to some degree through the skin, and the skin is very congested in most people. Rashes, itching, burning, tingling and other sensations are common. Most require no treatment and go away on their own in a few days to a week. If needed, apply aloe vera gel, zinc oxide, colloidal silver or other simple remedies to help with itching or infections. If needed, antifungal skin creams or powders are not too toxic. Avoid orally administered antifungal drugs, as most are very toxic. If possible, also avoid skin creams containing cortisone and other drugs.

**PAIN**

Pain is the single most important human sensation. This short section introduces important principles of pain correction and management using nutritional balancing science.
The pain process. This occurs in three stages of 1) tissue damage, 2) the stress response, including inflammation in all cases, and 3) resolution. Let us discuss these in more detail.

1. Tissue damage. Causes can include heat, cold, mechanical compression or other mechanical torsion, infections of many kinds, nutrient deficiencies or toxins of all kinds. Cell damage actually occurs due to impaired circulation, oxygenation, hydration or elimination of wastes. The body may also damage itself, causing pain. For example, poor digestion causes the production of toxins in the intestines that cause gas pains, liver tenderness and other kinds of pain. Those with diabetes or those on starvation diets may tear down their own tissues because they cannot metabolize sugars properly.

2. Inflammation. This can be very mild such as a slight swelling, or it may be extreme such as anaphylactic shock. In general, fast oxidizers can mount a far greater inflammatory response than slow oxidizers, who have less energy to work with. All inflammation is a mini-fast oxidation state. A fast oxidation rate on a hair analysis, by contrast, is a system-wide inflammatory condition. However, they are similar in many ways. Fast oxidizers therefore usually experience more extreme inflammation with symptoms such as acute pain, swelling, redness of the skin, water retention, blisters, a higher temperature and blood pressure, high blood sugar, more insulin secretion and perhaps more emotions such as rage and anger.

In contrast, slow oxidizers often experience less inflammation when an injury occurs. Some people comment that slow oxidizers have “a high pain tolerance”. This is simply because they do not react as much as fast oxidizers because they are too exhausted to react strongly. They may not even feel a needle puncture, for example, that would make a fast oxidizing child scream in pain. Those with a calcium shell are even more numb to some types of pain and other sensations as well. They often have the highest pain tolerance of any group. They may also have a high tolerance for emotional or mental pain as well, though certainly not in all cases.

3. Resolution. Pain resolution is often fast, such as withdrawing your hand from a stream of hot water or removing a stone from your shoe that is irritating your foot. Chronic pain usually occurs when the cause is not addressed. This may be due to ignorance of the cause or to imbalances in the body that prevent correction. For example, a zinc or omega-3 fatty acid deficiency can cause inflammation that will persist until the cause is found and corrected.

Unrelenting, severe pain often causes depression, discouragement and finally death to relieve the pain. This is where pain medication can be valuable, especially in acute situations such as after a car accident. It is important to recognize that even low-grade pain can significantly shorten a person’s life due to the depression and fatigue it can cause. On the other hand, one must be careful with pain medication, especially narcotic drugs such as codeine and morphine. These are extremely toxic for some people and can, of themselves, cause death when too much is given. This happens often in hospitals, in my view. Also, dependency and addiction can occur with these drugs.

Pain principles in regard to hair mineral analysis. These include:
• Any imbalance on a hair analysis is potentially associated with pain.
• A low calcium level and a faster oxidation rate are associated with heightened sensitivity to all sensation. A higher calcium level and slower oxidation are associated with reduced pain sensation and a higher pain tolerance. This may apply psychologically, as well as physically.
• **The sodium/potassium ratio may be called a pain threshold ratio.** The higher the ratio, the more sensitive a person is liable to be to pain sensations. In contrast, a low ratio, and all of the lowered awareness patterns such as a calcium shell, cause reduced pain awareness.

**Pain serves many functions.** An important one is to alert a person to tissue damage. However, pain is also used in nature to attract men and women, and to move people along their path in life. Here are some of the most important types of pain that most people will experience:

1. **Physical or mechanical causes for pain.** These include all tissue injury due to mechanical compression, the presence of toxins, an imbalanced temperature or pH, or a lack of water, oxygen, blood or nutrients.

2. **Pain that is related to stress of any kind.** This is somewhat different than that above because it tends to be temporary. It is due to mechanical or other causes, but it is related to tension, specifically. Examples are pain due to fatigue, lack or rest, too much running around, too much talking, eyestrain, muscle strain, digestive strain and all other types of tensions.

3. **Pain related to mental, emotional or spiritual causes.** This includes fear, longing, discouragement, horror, revulsion, and other more subtle types of pain. It may include the pain of lying to someone, the pain of feeling betrayed or let down, or the pain of learning the truth about something or someone. These cause pain every bit as strong and sometimes stronger than physical causes. In fact, they can do a kind of damage to the body at subtle levels. This type of pain is less easy to quantify and read with scientific instruments. However, it can sometimes upset or motivate a person more than pain due to an infection or a broken bone.

Pain, as viewed above, is closely related to the three levels of brain activity that are discussed in Chapters 36 to 40. In other words, one can classify pain syndromes by the level of brain activity with which they are most closely associated. This is a very useful way to understand pain because it can help one decide how to approach its correction.

**Nutritional balancing addresses many mechanical causes for pain.** These include inflammation, nutrient deficiencies, calcium imbalances, toxic metals, excessive toxic chemicals, infections, bowel problems, hormone imbalances, excessive tissue breakdown, improperly healed injuries, wounds and scars, and other sources of physical pain. Indicators for these include:

- **Inflammation** - all fast oxidation, a high sodium/potassium ratio, and perhaps sympathetic dominance, elevated ‘three amigos’, other toxic metals, four lows and four highs.
- **Excessive tissue breakdown** - a low sodium/potassium ratio or phosphorus less than 13 mg%.
- **Toxic metal excess** - often hidden on early hair analyses and other tests. Indicators for hidden toxic metals include hidden copper toxicity, zinc less than 12 mg%, phosphorus less than 12 mg%, slow oxidation or elevation of one of the ‘three amigos’, usually aluminum.
- **Bowel toxicity** - slow oxidation, especially with an abnormal copper level or hidden copper toxicity, low phosphorus or a low sodium/potassium ratio.
- **Infections** - a low sodium/potassium ratio, low zinc, high or hidden copper and perhaps all low energy patterns such as very slow oxidation and four lows.
- **Impaired wound healing** - a very slow oxidation rate, low sodium/potassium ratio, low phosphorus, four lows, low zinc, copper imbalance & high toxic metals, especially cadmium.
- **Deficiency of anti-inflammatory hormones** - very fast or very slow oxidation rate, a very high or very low sodium/potassium ratio, low zinc, high or hidden copper imbalance, elevated toxic metals and four lows.

**Hair analysis trends for imbalances in the main anti-inflammatory minerals are:**
- **Calcium.** A level less than 30 mg% or greater than about 60-80 mg%.
- **Magnesium.** A level less than 4 mg% or greater than 8-10 mg%.
- **Zinc.** A level less than 13 mg%, a sodium/potassium ratio greater than about 4:1, elevated copper, hidden copper indicators, elevated cadmium, lead, arsenic, mercury and other toxic metals in many cases. Also, most people are low in zinc today regardless of any tests.
- **Selenium.** A level less than about 0.1 mg%

**Hair analysis indicators for the pathological buildup of metals in the body (both toxic metals and excessive vital minerals) are:**
- The presence of any of the ‘three amigos’ or ‘friends’ (manganese, iron or aluminum).
- Elevated levels of any of the toxic metals.
- Copper greater than about 2.5 mg% or indicators for hidden copper.
- Calcium greater than about 80 mg%. This can indicate a degree of calcium depositing in the soft tissues of the body such as the joints, the arteries, the brain or elsewhere.
- A slow oxidation rate also usually indicates toxic buildup in the tissues.

**Nutritional balancing can reduce pain due to stress and tension, as well as that due to mental/emotional and even spiritual causes.** Nutritional balancing often addresses pain due to stress and tension in the body. This might include pain due to an improper diet, inadequate rest, or too much or no exercise. Other cause might be revealed as a sympathetic dominance pattern or a spiritual defensiveness pattern on a hair mineral analysis.

In addition, nutritional balancing may help to release some causes of mental and emotional pain. It can do this by enhancing physical and emotional stability and biochemical balance. This will provide anyone with a better physical foundation for handling all mental and emotional trials.

**Developmental pain.** A unique type of mainly mental/emotional pain is that which occurs as a person matures mentally and emotionally. This type of pain is usually a new awareness that one must live differently, and perhaps that one wishes to be around different kinds of people and to engage in different types of activities than most others enjoy. This is a type of loneliness that all people feel as they move on in their lives. This may be called the pain of heightened awareness or the pain of waking up.

Children handle this kind of pain easily, in most cases. Adults often do not, and it stops many of them from moving ahead in their lives. Instead of moving on by themselves, they prefer to run with the crowd, which only reinforces the crowd’s anger and boredom, since many in the crowd really wish they were elsewhere. This is where leaders are helpful for people, as they may be able to motivate people to move on to more productive, more healthful and more wholesome life adventures.
Jeanie, age 2, was irritable, constipated, reacted to many foods and had gastric reflux. These symptoms are sadly common in young babies and children today. They are born with a weak digestive system, usually due to nutritional imbalances in their mothers. Then they are given multiple vaccines, often right in the hospital, long before their digestive and immune systems are capable of handling the shock. In addition, they are often not breast fed long enough. Instead, they are fed chemical-laden baby formula, soda pop, fruit juices, too many sweet foods and not enough quality fats and oils that all fast oxidizers require. Babies ideally should not be given any juices or sweet foods. Stress at home, and electromagnetic and chemical toxins in the home, in cars and elsewhere, all add to the baby’s toxic load. Plastic diapers, toxic skin lotions and crib mattresses sprayed with fire retardants and other chemicals are additional toxins the children of Western Europe and America must contend with.

Jeanie felt better on a nutritional balancing program, but one day began a healing crisis with a slight fever, colic and diarrhea. Her mother took her to a doctor, and a blood test showed a low white blood cell count. The doctor was alarmed and wanted to do more tests. I advised her mother that blood tests can be abnormal, at times, during nutritional balancing programs. Before doing more tests, the blood test should be repeated in a few days to a few weeks. The test was repeated in a few days and came back normal. It is possible the first test was simply in error. However, often blood results will vary widely as body chemistry changes at deep levels. The low white cell count may also have been due to a latent infection that became active as it was cleared from the body. Since this healing crisis, Jeannie is no longer irritable, and she can tolerate most foods with no constipation or gastric reflux.

Many health problems today begin before birth, while one is still in the womb. They become worse during childhood and adulthood. If this is understood clearly, preventive and corrective measures can be taken throughout the life cycle to slow and even reverse the process or aging, disease and early death. Here is an illustration with a fictitious child named Emily.

**THE BEGINNING OF STRESS**

The story of Emily is a good illustration of a typical child’s development. She was one of the lucky children who was conceived in love by a married couple. Her parents, unlike many, were emotionally ready for a child, but her mother’s body chemistry was far out of balance, as are most today. Most young women are deficient in calcium, magnesium, zinc, selenium and other vital nutrients. Their bodies are also high in copper and a dozen or so toxic metals. Their
general vitality, even at age 20, is often dreadful. Most standard and holistic tests will not reveal this. Most young women also do not eat nearly enough cooked vegetables, and too many eat on the run. Most also drink impure tap water, do not sleep and rest enough, breathe impure air all day long, do not breathe deeply enough, and some work far too many hours to be healthy.

**Calcium deficiency begin.** Just a few hours after conception, Emily’s body calls for calcium. However, her mother rarely consumes certified raw dairy products, carrot juice or some other excellent source of calcium. Also, mother doesn’t know she is pregnant so she is not taking a calcium supplement. Pasteurized and homogenized dairy products are not nearly as good sources of calcium. As a result, within hours of conception, Emily is already low in calcium, which will slow her development a little.

Three days later, Emily has an important need for zinc. However, her mother’s diet is low in zinc and too high in copper. Instead of zinc, Emily reluctantly must accept copper in place of the zinc in certain enzymes. It keeps Emily growing, but Emily will be a nervous, moody child as a result.

**Alcohol.** The next evening, mom and dad go to a party and mom can’t resist a small glass of the finest wine, so she is told. However, it is not healthful at all because it contains alcohol, a highly toxic substance for growing babies. It may also contain toxic sulfites used as preservatives, and pesticide residues from the sprays used on the grapes. Just one glass of wine at this critical moment in Emily’s development totally stops her brain from growing for a few hours. This sets her back significantly, since there is much to do in the next eight months or so. The following day, Emily’s system cries out for extra B-complex vitamins, magnesium and zinc, among other nutrients, to rid the body of the alcohol and chemical residues. Few people realize that alcohol and most food chemicals and metals pass right through the placenta from mother to child.

**Smoking.** The next weekend, mother finds out she is pregnant. She and dad go out for a nice meal to celebrate. However, they sit near a man who is smoking a cigarette. This is disastrous for Emily. The second-hand smoke leaves Emily’s tiny body with many more toxic chemicals and heavy metals for the rest of her life. Even if she tries to detoxify later, these toxic metals will be deeply buried in her newly forming brain and elsewhere, making it very difficult to dislodge them. Emily is lucky, however, because her mother is not ill or unhappy, doesn’t have to work long hours, sleeps almost enough and is not exposed to severe toxins at work or at home. Millions of developing babies are not so lucky.

**Birth with drugs.** Soon it is time for Emily’s first ultrasound. Neither her mother, the doctor or technician realize how this affects Emily. The high frequency sonar waves are, in fact, quite objectionable to Emily, but what can she do? This common test is best done as few times as absolutely needed to monitor the pregnancy. The next step is birth, a difficult time at best for babies and perhaps the most traumatic time in their lives. Birthing practices have at least become cleaner, but in Emily’s case the doctor on call is in a hurry, so drugs are used to speed up labor. Emily is not really ready to be born, and the drugs numb her and force her to be born a few days early. This will also leave its scars on her body, particularly her nervous system, for the rest of her life.

**Formula and vaccines.** After birth, instead of her mother’s warm breast, she is given a toxic brew called formula that instantly makes her sensitive digestive tract inflamed and sets back her development of this part of her body by days to weeks. Before she goes home, she receives a hepatitis B vaccine, although the chance of exposure to hepatitis are almost zero for a well-cared for baby. The vaccine contain enough mercury, aluminum, formaldehyde, benzene or
other poisons to thoroughly disrupt Emily’s nervous system for weeks or longer. She is lucky, however, because many other children end up autistic as a result of all the toxins in vaccines.

This is how life begins for most babies in the Western world. In fact, Emily is much better off than many, whose mothers have no husband, who live on very poor food, and who may smoke cigarettes or marijuana, and drink much more alcohol.

Today most babies also have to contend with mothers who use toxic over-the-counter and prescription drugs, and toxic skin care products such as perfumes, deodorants and hair spray. Most babies are also exposed to many toxic home products such as pesticides, slightly toxic soaps, detergents and others. Please reread this story many times as there is so much to learn about healthful pregnancy that this book can only touch upon. Another volume is needed to teach how to live in order to have a healthy and wholesome pregnancy experience.

**PRENATAL CARE**

Prenatal care in most advanced nations is quite insane from the perspective of nutritional balancing. Its problems include:

- *It begins far too late.* Prenatal care should begin at puberty or much earlier, in fact, to renourish and really prepare a young woman’s body, mind and emotions for the sacred task of raising a child.
- *It does far too little to make much of a difference.* Most prenatal care consists of a blood test or two, perhaps a chest x-ray, and a prescription for a multi-vitamin that is often totally incorrect for the woman’s and the baby’s needs.
- *It does not teach a healthful lifestyle, a superb diet, plenty of rest, emotional tranquility, and avoidance of all toxic substances in the air, water, food and through contact.*
- *There is no attempt to teach women that pregnancy is a huge stressor.* It is hard on them, and on their children as well. Anyone over about 40 today should not be encouraged to become pregnant for these reasons. It would be much better to adopt at this age or older.

**Prenatal care among ‘primitive’ tribes.** Dr. Weston Price, DDS, learned that many tribes begin prenatal care as soon as a girl reaches puberty. The entire tribe may gather and organize a special hunting or fishing trip to bring the lucky lady special foods so she can bear the healthiest child possible. Interestingly, in all cases that I recall, the primitive tribes sought out animal quality foods for the young women. Zinc and many other micronutrients are found almost exclusively in animal quality foods. While the hunt was on for the best foods for the young girl at puberty, often she was taken away from her friends and spends time with older women who teach her all about nutrition, cooking, child-rearing and other skills she will require.

Today’s prenatal care is close to the exact opposite. Teenage girls are encouraged on television to load themselves with toxic makeup, nail polish, hair spray, hair dye and other poisons, and to eat unhealthy diets. Their parents even encourage some of this, or at least don’t stop it. Instead of learning child care and nutrition, they often learn how to experiment with sex, alcohol and drugs recklessly. This leads to diseases in most of them by age 25 or so, that will affect them and their babies for the rest of their lives.

Young women, in particular, need to know that anything they put in their bodies now, and every product they use on their skin and hair, will affect the health of their future children. This is not up for debate or discussion. I hope someday that our culture begins to honor
womanhood and motherhood by insisting that girls at puberty clean up their diets and lifestyles and learn about their future role as mothers. This needs to happen long before they become pregnant, because it takes years to clean out the poisons, if they can ever be removed.

**Better prenatal care.** In my experience of almost 30 years, nutritional balancing is superb to help young women to have safer, healthier pregnancies and better outcomes for their children. Many young women look good. However, on their hair analyses almost all show adrenal exhaustion, copper imbalance, hypoglycemia, plenty of toxic metals and other biochemical imbalances. All can negatively affect pregnancy and childbirth. Without a hair analysis, one cannot tell, for example, if a young woman or man has excessive amounts of toxic metals, an imbalanced oxidation rate or other important metabolic problems. A group in England that is doing a fine job of educating people in the area of prenatal care is Foresight.

**Nutritional balancing during pregnancy.** I was initially skeptical of placing pregnant women on nutritional balancing programs. I wondered if the program would mobilize toxic metals from tissue storage sites and they would be deposited in the fetus. However, this does not appear to occur. So far, after at least 100 cases, 100% of the babies born to women who follow a well-designed nutritional balancing program during pregnancy have been as healthy or healthier than the mothers’ previous babies. In fact, most mothers comment that their ‘hair analysis baby’ is much happier, with better color and fewer digestive and other problems.

For safety’s sake, I do not recommend saunas or even coffee enemas during pregnancy, although I am unaware of any problems with them. This is simply a general precaution until more studies of these modalities are done. Also, in addition to the individualized supplement program from the laboratory, I recommend kelp, omega-3 fatty acids, vitamin D and extra iron and perhaps folic acid, as these are necessary for a healthy pregnancy.

**Genetics, birth defects and nutritional balancing.** The birth defect rate in the United States and elsewhere has more than doubled since 1950. Given all our technological advances, this is nothing short of disgusting, and one of post-modern medicine’s greatest failures. Who cares how wonderful their neonatal care is. It is still better to have a very healthy baby. Birth defects are caused by radiation, toxic metals, toxic chemicals and nutrient deficiencies. All of these can be reduced by stopping one’s exposure to toxins and by following a nutritional balancing program.

In other words, birth defects, in my view, are not that difficult to prevent. Other truths about birth defects that need to be taught in high school, not to mention medical schools, are:

- **Nutrients activate genes.** Most genetic problems are due to lack of activation by various nutrients such as zinc, magnesium, selenium and various vitamins.
- **Toxic metals can interfere with gene expression.** This is well-known, but not taught much.
- **Removing toxic metals and balancing body chemistry can improve a person’s DNA.** This is a casual observation that will require more rigorous proof. However, DNA is subject to damage by toxic substances of all kinds such as metals, chemicals and radiation. Removing these toxins is helpful for the body at all levels of functioning.
- **Many children with birth defects such as Down’s syndrome or mongolism, for example, respond well to nutritional approaches.** I have helped a number of babies and children with severe genetic problems who were not supposed to do nearly so well. Perhaps this is
possible because some of the damage has to do with enzymes that can be bypassed or assisted by gently balancing body chemistry and removing one's toxic metals.

**Toxic metals in babies.** Almost all children today are born with excessive toxic metals and nutrient deficiencies due to excessive toxic metals in their mothers. Newborns can have a hair analysis as soon as they have enough hair or fingernails to obtain a sample for analysis. Most have an excessively fast oxidation rate, a low sodium/potassium ratio and high levels of toxic metals.

**Supplement programs for babies.** Infants usually require only three products - a metabolic pack, a calcium and magnesium product, and Limcomin. The latter is a formula from Endomet Labs for those with a low sodium/potassium ratio. More supplements, even of the best quality, are often harmful for infants because their bodies are extremely sensitive.

‘Burnout babies’. Dr. Eck used this phrase thirty years ago to describe many babies whose hair analyses reminded him of much older, sicker people. At age two or three, these children are already tired, prone to illnesses and, as a result, even somewhat depressed. They usually have food intolerances, sometimes to breast milk, and many are diagnosed as ADD, ADHD, and perhaps with autism or even cancer before they even enter school. This is the sad situation today in America and parts of Europe and Asia where people have lived on refined foods and contaminated drinking water, used hundreds of toxic skin care and other products on their bodies and in their homes, and breathed contaminated city air, often for several generations.

**VACCINATION**

The most toxic and insane medical intervention today is multiple vaccinations given to babies and children. They cause far more problems than they could ever prevent. Reasons for harm include:

- **Injecting poisonous germs into delicate bodies with poorly developed immune systems.**
- **Contamination of ALL vaccines with other bacteria and viruses.**
- **Contamination of most vaccines with added chemicals.** These include mercury, aluminum, benzene, squalene, formaldehyde and a number of others.
- **Bypassing the body’s defense systems.** Just because the amount of mercury and other chemicals is small does not make their use acceptable. First, adding more poison to a person’s body is never wise, particularly for growing children. Far worse, however, is injecting poison directly into the body because this bypasses most of the natural defenses against toxicity. The effect is far worse than drinking a little fluoride or some other toxin.
- **Ignoring the real causes of disease.** Parents are brainwashed into thinking that their child is now healthy because he has been vaccinated. This is a complete lie, often perpetrated by corrupt public health officials and pediatricians who make their living doling out the shots.
- **No legal accountability.** In every other industry, those who make and sell products are held liable for their actions. This is not the case with vaccine makers, or with the doctors and nurses who preach the virtues of vaccines and actually inject them.
- **Combination vaccines.** These are the worst, and most important to avoid. They include the MMR, DPT and others. Ignorant doctors often recommend combining many shots at one “well child visit” to save time or money, not realizing the danger in which they place the young children.
• Forcing toxic drugs on people who do not want it is a form of tyranny and totalitarian rule that has no place in America. The current government and Congress wants to expand government’s power and control over health care. This would likely make this much worse.

A recent report from the Centers for Disease Control or CDC indicated that children who received vaccines preserved with a mercury compound were 27 times more likely to develop autism! I hope that common sense returns to this area of medical care soon. More information and references on vaccines are found at www.drlwilson.com as well as on many other excellent websites. An excellent 2-DVD series is available at www.MaryTocco.com.

Drugs for babies and children. The second worst medical intervention today is drugging children for minor infections and worse, for vague psychological diagnoses such as depression and bipolar disorder. If at all possible, avoid the use of all drugs with children. Natural remedies for rashes, fevers, infections and other conditions are listed elsewhere in this text. Most psychiatric drugs have never been tested or even formally approved for use with children. However, this is not stopping hundreds of thousands of doctors around the world, including holistic ones, from using them with impunity. Mental illness, in my experience, is often due to nutritional imbalances or stress in the home or school. Instead of really investigating these simple causes, however, too many doctors and psychologists rush to the prescription pad. This is rather insane and should be grounds to revoke a doctor’s license to practice.

Breastfeeding and nutritional balancing programs. Nutritional balancing programs often work well in women who are breastfeeding. The milk is more nutritious and promotes excellent health in both mother and child. It may keep the baby breastfeeding longer, since at times babies reject the breast milk after a few months or more because it is low in nutrients or has other problems.

An occasional problem occurs when a baby becomes colicky when his mother is on supplementary nutrients. If this happens:

• Try stopping the supplement program for a few days. If the symptoms cease, the problem is likely a reaction to a supplement. If, however, the colic continues, most likely the problem is not related to the nutrients. Perhaps the mother is not relaxed enough while breastfeeding or the infant is somewhat ill. Occasionally the mother’s diet is at fault in some way.
• If you suspect a supplement is the problem, slowly restart the supplements, but only one dose daily and only one supplement at a time. This way you can usually figure out which one is causing a problem. In a few cases, it is not any single supplement, but just the powerful combination. In this case, taking them only once daily and preferably not just before breastfeeding may solve the problem.
• If a product must be eliminated, check with your practitioner to see if a substitute can be found. In some cases, a milder product or just a different brand may be acceptable.
• Another idea is to discontinue the supplement program for a few weeks and then restart it. By this time, the baby will be stronger and more able to tolerate the supplements.

Breastfeeding difficulties. Ideally, babies should be breastfed for 3 years. Please do not give up on breast feeding easily. Also, avoid listening to anyone who says that formula, or
animal or vegetable milks, are almost as good as breast milk. They are usually not! Contact La Leche League International for breastfeeding problems. They are usually extremely knowledgeable and much more helpful than doctors and nurses, who are often woefully ignorant about this subject. Common reasons for difficulty breastfeeding include:

- **Nutritional imbalances in the mother that affect the quality or quantity of the milk.** These women may benefit greatly from a nutritional balancing program.
- **Stress in the mother or child, which impairs feeding.** Always sit quietly while breastfeeding. Never rush the baby or yourself. If possible, think only positive, happy thoughts while breastfeeding and during pregnancy.
- **Other problems include sore nipples, breast infections, and some babies have difficulty feeding.** For sore nipples, try a product called Bag Balm. It is not a 100% natural product, but it is better, if it works, than quitting breast feeding due to sore or infected nipples. For simple infections, consider simple, non-toxic anti-infective agents before resorting to toxic antibiotics. These are discussed in Chapter 45 and are generally safe for lactating mothers.
- **Rarely, a baby’s oxidation rate may slow down so much that the composition of breast milk is not correct for the child.** Also, rarely, a baby has special nutritional needs and breast milk simply does not work well.

**Breast milk substitutes.** If one must abandon breast feeding, here are suggestions:

- **Try to find a wet nurse.** This is uncommon today, but was a very common practice years ago, and still is used in some cultures. Any young woman will do. I realize this may sound radical, but it is not crazy if you want to raise an extremely healthy child.
- **Make your own formula.** *Nourishing Traditions* by Sally Fallon offers recipes for milk-based and meat-based natural formulas.
- **If possible, do not use commercial formula.** It is often just canned cows or soy milk with sugar, chemical additives, and poor quality vitamins. Some have added iron, which is one of the worst aspects of their use and is terrible for most babies.
- **All babies and children must have sufficient omega-3 fatty acids.** The best sources are fish oil, or perhaps hemp or flaxseed oils. Grinding up flax seeds will not provide enough.

**Saunas and colon cleansing during lactation.** Lactating mothers may use saunas, and do colon cleansing and mild coffee enemas during lactation. I have never had a baby react to these, though I suppose it is possible.

**CHILDREN AND TEENS**

Children often do extremely well on nutritional balancing programs, provided that parents make sure their child eats correctly, sleeps a lot, and takes the supplements twice daily. Tips for working with children are:

- **Parents must set an example for their children.** Eat the same healthy food, go to bed early, live a healthful lifestyle and in many cases your children will just follow along naturally.
- **Give children healthy choices as to what he or she may eat, and as to how he or she may swallow or powder the supplements.** Do not force children into one type of food or one way
to take supplements. However, neither should a parent make excuses that the child will not take the food or supplements. Just provide choices, all of which are good for health. Ask for help, perhaps from a trained counselor or other parents if your child is fighting you on this. Others may be able to see subtle ways in which you are getting in the way of your own success in this area. Many parents simply give up on their children, which is a shame.

- **Make meals simple and fun.** Two or three foods are plenty at a meal. If needed, cover vegetables with a sauce made of full-fat plain yogurt, cream, olive oil, butter, watered down almond butter or, if absolutely needed, even tomato sauce. Tomato products are not recommended at all, however, as they are too yin and contain toxins. Many children will eat healthy, simple meals if parents will prepare them and eat them, too.

- **Give all children, along with all other family members, 2-10 ounces of carrot juice with some spinach or celery in it.** This can help your child get his vegetables as well. Cooked spinach is also an excellent vegetable from which to obtain many minerals. It can be added to all soups, salads, and other vegetable and egg dishes.

- **If you must, puree vegetables in soups so they cannot be easily recognized.** However, pureeing is not as good as simple steaming, roasting, stir-frying and other methods of cooking. Pureeing mixes too much air and other qualities with the food, making it much more yin. Do not overcook vegetables and rotate them to provide some variety.

- **Fruit and sweets are never helpful.** Avoid thinking that some sweets, fruit or juice, even diluted, are good for children because they like it. These are horrible for all children, and for most adults, too.

- **Digestive aids.** Most children do not need these as much as adults.

- **Powdering supplements.** For young children, supplements can be ground or crushed with a pill crusher. These are available at many supermarkets or pharmacies. Mix the powder with a strong-tasting food such as a nut butter, yogurt, cheese or, if needed, even tomato sauce, which is not a preferred food. Although it is more work, supplements may also be placed in a blender with a little whole milk, pure cream, plain yogurt, vegetable soup and, only if none of those will work, you may use a little watered down black cherry or other nutritious juice.

- **Saunas.** For children under five, I do not recommend saunas, although some doctors such as Stephen B. Edelson, MD make use of saunas with children as young as two. Of course, they must be accompanied by a parent or other adult.

- **Sleep.** All children, especially teens, need at least 10 or more hours of sleep each night. According to a recent news report, even one more hour of sleep per night can make the difference between a healthy teen and one who is tired, overweight, depressed and not doing well in school. More sleep can also help offset other bad habits, such as improper diets.

**Teen’s diets and lifestyles out of control.** The diets and lifestyles of many older children and teens are shocking to anyone who was raised in a good home. Many are allowed to stay up late, sit at computers or watch television for hours instead of getting some exercise, eat absolute junk, and on the weekends many are allowed to wander all night with their friends. Often, there are few sit-down family meals that are truly home-cooked with fresh ingredients. All children, and especially teens, need lots of love, attention, and time for true family communication. Always ask plenty of questions of children and just allow them to open up as they wish. Always be light-hearted about it, as most children are full of life and not interested in too much seriousness.
Never base decisions about your children on the insane way that other parents treat their children. Children all need their parents to set clear boundaries, and to set up simple, sensible and easily understood rules. They also need to suffer consequences when they do not obey the rules. This is not mean or harsh. It is simply learning to be part of a family and part of a vibrant, alive society. If a child cannot fit in at home, he or she is even less likely to fit in once he or she grows up and is on his own.

Many parents are tired out, and work long hours. Often, however, ways can be found to spend more time at home, with children. Please seek help if you feel you need help with children, rather than just give up or give in to children’s manipulations and demands. Some teachers believe that disciplining children, insisting they eat well and do chores, and that they sleep enough is bad for their self-esteem. In fact, the opposite is true.

OLDER PEOPLE AND NUTRITIONAL BALANCING

As people age, toxic material of many kinds builds up in the body. This is an overlooked, and important cause for aging. The reasons for toxin accumulation with age are:

- **Daily intake of toxic substances in the food, water, air and through skin contact.** Today this includes the use of many prescribed and over-the-counter drugs, most of which are toxic.
- **Impaired digestion of food due to low digestive enzyme secretion.** This causes nutritional deficiencies. The body then replaces missing essential minerals with toxic metals.
- **Impaired elimination of wastes at the cellular level, and in the liver and the large bowel.**
- **Sedentary lifestyles and shallow breathing in most cases due to fatigue, fear of falling, depression and other causes.**
- **Lower overall vitality.** This is a function of greater toxicity, but it also has to do with aging itself. It means older people just tend to heal more slowly.

**Tips for assisting those who are 65 or older include:**

- **A series of ten colonic irrigations is excellent for most older people.** This will give many of them a new lease on life. Home enemas can also be done at almost any age.
- **Distilled water is excellent for detoxification for older people, but only for about six months and during healing reactions.** It is gentle, yet helpful.
- **Diet.** Be sure sugar is out of the diet and that many cooked vegetables are eaten two or three times daily. Avoid all raw foods due to weak digestion. Simple meals are very adequate.
- **Saunas for 10 minutes at a time to start with are superb and even life-saving.** Later, as sweating increases, the time in the sauna can be increased up to 30 or perhaps 40 minutes per session. If possible, an attendant or a friend should be present in the home or on call.
- **Supplements.** At times, older people should receive fewer food supplements, as they do not handle foods and nutrients quite as well as younger people. Some may have difficulty remembering to take supplements. However, many elderly people make excellent clients because they have learned how to follow instructions well.
- **Digestive aids such as GB-3.** This is absolutely essential for most people, and especially those over 50. Most people, at this age and above, have much lower digestive strength. As a result, some older people die of malnutrition, although they may eat three good meals a day.
• **Renamide.** This is a kidney formula that is also superb for all older people. Kidney failure due to toxic metals is a major, but hidden cause of death today.

• **MCHC for osteoporosis.** All post-menopausal women, and anyone prone to osteoporosis, may benefit from MCHC plus additional magnesium instead of other calcium/magnesium supplements. MCHC is a bone extract that helps prevent osteoporosis. In contrast, the side effects of drugs prescribed for osteoporosis such as Boniva and others can be severe. I would suggest avoiding them all.

• **Vitamins B12 and D3, kelp, cooked spinach, Veg Easy capsules and omega-3 fatty acids.** These are also important for most older people and can significantly slow the aging process. Everyone over the age of 80 should get vitamin B12 shots, I would suggest, to avoid a possible B12 deficiency.

• **MCT oil if memory loss occurs.** Research indicates that medium chain triglycerides or MCT can help prevent and even correct some types of memory loss.

• **Too many drugs.** This is another cause of premature aging and death. Always ask older people about ALL their drugs, both prescription and over-the-counter. Many symptoms can be due to drug side effects and interactions that are not found on labels, inserts, or in books about drugs.

  Many seniors take half a dozen drugs and some take over a dozen. I doubt this is really ever needed. Helping seniors, and sometimes others, reduce their drugs is necessary, at times, for healing to occur. However, if possible, always work with the prescribing physicians when attempting to reduce prescription drugs.

  **Free medical care for the aged.** Prolonging the lives of the elderly – especially those with a poor quality of life - with trillions of taxpayer dollars, does not seem to me to be a wise investment of money, time or energy.

  Many of the elderly are ready to move on, even if they don’t say so. Many actually do say so. However, their doctors either do not listen, or perhaps are afraid they will be sued if they really listened and acted accordingly. Many simply do not know how to respond. Instead, they load the people with ‘care’, which often means drugs. The drug companies benefit, and the doctors as well, but the people do not benefit that much, I would suggest. Those who are healthy need to be cared for, but those who are very ill really need hospice care, not Medicare.

  A nation must balance the needs of the elderly with the needs of the young and the healthy, for example, or the nation wastes its precious resources. I hope this issue can be discussed more openly in future debates about health care. Of course, in a free market health care system, once the standard in America, the issue is decided by each person. This is the solution I would most favor.

**END OF LIFE SCENARIOS**

The idea that one must die of cancer, diabetes or a heart attack is totally incorrect. Life should be good to the end. The ideal end of life scenario is to give up the body gently during sleep, perhaps after a very brief illness such as a mild infection, without suffering the ravages of modern-day diseases. Very sadly, this is rarely the case today. In part this is due to massive drug use that weakens the body. It is also due to very poor health that causes cancers, heart attacks, and so many other common diseases. Nutritional balancing science can help to keep the body balanced right up until the end of the natural lifespan.
Mary, age 47, began to experience double vision and fatigue during a time of high stress. An MRI revealed a pituitary macroadenoma. Blood tests also indicated Grave’s disease or hyperthyroidism. Mary wished to avoid surgery for both conditions, especially after hearing about the possible side effects of pituitary surgery. However, she required medication for the Grave’s disease, for symptoms of palpitations, tachycardia and extreme fatigue.

Mary chose to use natural methods, including much more rest and daily use of a near infrared light sauna, along with a diet of steamed vegetables, with a little animal protein several times weekly and drinking only distilled or spring water. She took a few basic supplements. The symptoms of double vision disappeared in a few weeks and have never returned. On this limited regimen, her thyroid hormone levels normalized within six months and she was able to discontinue all medication. For the brain tumor, she also used Protocel and suma, a fairly safe Brazilian herb. A repeat MRI three years later showed a 20% reduction in the tumor’s size. Now, several years later, Mary continues to do excellently with no symptoms other than fatigue.

Cancer is an important disease of the twenty-first century. Almost half of all Americans will receive a diagnosis of cancer. Many more are never diagnosed. Some cancers are simple, but most are problematic conditions. This chapter is an overview of the cancer problem and several alternative approaches. Before beginning, I wish to emphasize that nutritional balancing science, the topic of this book, is not a cancer program. It is much too slow in its effect on cancer for the following reasons:

- **Cancer is often a race against time.** A person with an active cancer needs what I call a symptomatic remedy to kill the tumor quickly. After that, and only afterwards, may nutritional balancing be used to correct the internal environment to prevent a recurrence.
- **Removing dead cancer cells is not easy, and this is just one aspect of handling cancer that nutritional balancing is not designed to do.**
- **With cancer, all the body’s effort should be focused on the condition for a while.** Nutritional balancing does not do this well. Nutritional balancing is not a focused approach. It is a whole systems approach, which is best for most conditions, but not for cancer.
- **Because nutritional balancing is not designed for cancer, the results will not be as good.** This is not helpful for practitioners or for their clients.

Shrinking a tumor does not mean using chemotherapy, radiation or surgery. Less toxic, much less costly, safer and perhaps even more effective therapies are discussed below.
Many cancers are simple to care for. I know from many experiences that cancer is not an incurable condition. While it is best caught early, even late-stage cases can respond amazingly well. However, one must commit to a rather rigorous healing program. This chapter is a guide for those willing to commit to such a program.

Conventional cancer treatment can be a nightmare. Sadly, readers need to know that conventional cancer treatment is outdated and not very effective, no matter what the media proclaims. Also, health authorities that people trust often malign and even suppress helpful alternative cancer methods, such as the two described in this chapter. This fact is well-documented. For example, an excellent recent book that provides much more documentation on this subject is entitled Outsmart Your Cancer by Tanya Harter Pierce.

WHAT IS CANCER?

In 1902, John Beard, MD, an embryologist and physician, put forth the trophoblast theory of cancer. Since then other researchers have confirmed many aspects of the theory. All cancer, it states, is a normal type of cell of the body that arises at the wrong time and place. The cell type is called the trophoblast. It normally arises inside a woman’s uterus just after she has become pregnant. The trophoblast in the uterus surrounds the fertilized egg. Its function is to nourish the growing fetus for the first 8-12 weeks of pregnancy. The way it does this is essentially to burrow into the wall of the uterus. It sets up a rich network of blood vessels that take blood from the mother and direct it to the developing embryo. At about 8-12 weeks of pregnancy, the so-called critical period, the trophoblast mysteriously fades away and is replaced by the placenta, which nourishes the fetus for the duration of pregnancy.

The trophoblast has been studied by scientists. It shares many biochemical and physical characteristics with cancer. It is capable of invading healthy tissue, metastasizing or spreading quickly, and it can set up its own network of blood vessels just like a cancer. Also, it looks identical to cancer under a microscope. In fact, rarely, the trophoblast does not disappear at the critical period of pregnancy. Instead, it keeps growing. This condition is called choreocarcinoma. Unless it is stopped somehow, it kills both mother and child within a few weeks. Everyone has totipotent or stem cells scattered around in the body that can turn into trophoblast when conditions are right. Factors known to favor the growth of trophoblast include:

- **High levels of estrogens.** These are a feature of pregnancy, for example.
- **Toxic metals.** Many of these affect the liver’s ability to detoxify estrogens.
- **Low levels of pancreatic enzymes.** These primarily are trypsin and chymotrypsin.
- **Mineral and vitamin deficiencies.**
- **An acidic cell environment.** This is often due to aging, toxicity and nutritional deficiencies.
- **A reduced oxygen supply.** The trophoblast lives in a low oxygen or anerobic environment.
- **Infections, scars and other imbalances in the body tissues.**

CANCER PREVENTION

Cancer is far easier to prevent than to get rid of, for the following reasons:

- **It is often a stealth illness.** This means it offers few symptoms in the early stages when it is easiest to handle. When discovered, it is often late to begin a corrective program.
Dissolving tumors is difficult for the body.
Cancer will end one’s life if it is not stopped. Just slowing it down is better than nothing, but is not enough, as it is with many other illnesses.

True or primary cancer prevention is the best. Methods to do this include:

- A healthful diet of mainly steamed vegetables and some animal protein.
- A healthful lifestyle with plenty of rest, peace and quiet, and low stress.
- Minimizing toxic exposures of all kinds.
- Internal cleansing using coffee enemas and near infrared sauna therapy. Less recommended methods are to use a traditional or far infrared sauna, or colonic irrigation. Please avoid ionic foot baths, and even repeated use of clay baths, as these are not safe.
- Protocel. This is a simple product described in more detail below. It is available without prescription and quite safe.
- Oxygen therapies such as medical ozone, hydrogen peroxide or others.

Secondary prevention involves testing to find early cancers before they show up clinically, such as:

- Preventive CAT scans and mammograms. However, besides their cost, these exams expose a person to higher levels of radiation, which can increase the chances of cancer.
- Safer medical tests include breast and other thermography, ultrasound, simple chest x-rays, MRIs or PET scans. These are still costly, but much safer.
- Another alternative is non-traditional blood testing from American Metabolic Laboratories in Florida at (954) 929-4814. The cost is about $450.00 and does not require a doctor’s prescription. The laboratory mails a prescription and a kit with vials for blood and instructions. You simply bring the kit to any blood testing lab in your area.

ALTERNATIVE CANCER APPROACHES

As stated earlier, I do not recommend nutritional balancing alone for active cancer. Nutritional balancing science is designed to balance the body, but not to dissolve tumors quickly enough. Other therapies are better for this purpose, as explained below. I feel comfortable recommending only three low-toxicity methods. These are 1) Cantron or Protocel, 2) the Kelley metabolic cancer therapy and 3) possibly ozone and other oxygen therapies. Many other alternatives are offered by holistic and other types of doctors. However, I would stay away from these. I have seen too many failures with intravenous vitamin C, insulin potentiation therapy or IPT, medicinal mushrooms, herbal therapies and others. Let us examine some cancer therapies.

The Kelley metabolic cancer therapy. William Kelley, DDS, was diagnosed with advanced pancreatic cancer in the late 1960s. His doctors gave him no hope. Dr. Kelley researched the medical literature and stumbled onto the trophoblastic theory of cancer. He figured he had nothing to lose, so he took massive doses of porcine pancreatic enzymes. This is the main remedy recommended to destroy the trophoblast in Dr. Beard’s original book.

It worked and Dr. Kelley recovered completely. He began to share his discovery and continued to research cancer protocols. He evolved a complete cancer protocol and continued to
refine it for 35 years until his death from other causes (not cancer) at age 88. He was an excellent doctor and wrote a small book entitled *One Answer To Cancer* as a guide for patients.

The Kelley program as taught by Mrs. Pamela Mcdougle is best, as it is quite a complete method for eliminating cancer from the body. However, it is much more expensive than Cantron or Protocol. It requires a careful diet, daily coffee enemas, at least two near infrared sauna sessions each day, and one must take concentrated pancreatic enzymes in large doses for at least a year or more until the tumor is gone. Plenty of rest and sleep are also an important part of any cancer recovery program. The cost is about $800.00-1200.00 per month for at least a year or two.

Be aware that many doctors offer their own version of this therapy. I can only recommend calling Mrs. Pamela McDougle in Boise, Idaho at (208) 424-7600. She is the official representative for this excellent therapy. She was Dr. Kelley’s last student, so her information is the most up-to-date. Most others lack extensive experience and many doctors unwisely change the program, which can be disastrous!

**Cantron or Protocol.** This powerful, inexpensive remedy was developed by Jim Sheridan, most likely in conjunction with William Koch, MD. It helps with many forms of cancer. It is easily available at this time (2013) via the internet. Cantron and Protocol appear to be very similar products, and both appear to work well. Cantron is a lot less costly. They are sold as stand-alone products. They may come with warnings to avoid certain food supplements and herbs when using it. However, I have found that, in fact, they combine well with a nutritional balancing program, which makes the remedy much more effective. *Therefore, I always recommend a nutritional balancing program along with Cantron or Protocol.*

With Cantron or Protocol, I strongly suggest at least two near infrared sauna therapy sessions daily and 2 coffee enemas daily. Also, avoid all red meat and eggs for about 6 months, as these are high in iron that can feed cancer. Also, do not take a glandular product with cancer. *The failures I have heard of with Protocol, and even with the Kelley program, are often in strict vegetarians.* The article *Cancer And Alternative Therapies* at [www.drlwilson.com](http://www.drlwilson.com) offers updates regarding these and perhaps other natural cancer therapies.

One other natural therapy I can suggest is called *Black Salve.* It is a simple home remedy for pre-cancerous and even cancerous moles. Follow the instructions carefully, as it is quite irritating to the skin if not used correctly.

**NOTE:** The methods above are not approved or recommended by the American Medical Association or the American Cancer Society. In fact, these powerful drug-based groups often do their best to discredit and destroy alternative therapies for cancer.

**IMPROVING SUCCESS WITH NATURAL CANCER PROGRAMS**

The remainder of this chapter is designed for anyone wishing to undertake a natural cancer correction program at home. This section can also help practitioners who wish to guide others through the cancer maze. Here are suggestions to improve your success.

- *Reduce stress as much as possible.* Causes for stress include anything that worries or upsets a person in any way - physically, emotionally, mentally or spiritually.
- *Meditate in a special way.* I strongly advise all cancer patients to use the meditation-observation exercise recommended in Chapter 6 for an hour each time, at least twice a day.
If possible, do not to combine the natural methods recommended above with any chemotherapy or radiation. Authorities on these alternatives tell me that chemotherapy, and especially radiation, severely weaken the body and make cures less possible. Surgery is not great, but may be helpful in a few cases to remove a large tumor or for other reasons.

Follow the program diligently. This means doing the entire program as well as you can, and as consistently as you can. These programs are the product of many years of research and you are not likely to improve upon them. Holistic physicians, often with little real experience with cancer, are among the worst offenders here. They may attend a seminar or workshop and suddenly feel they can do better than the masters by changing something.

Find good supervision. If possible, find someone who is 1) well-trained in your therapy, 2) has at least 10 years experience with cancer, and 3) has a medical background, though this is not really needed. Knowledge is far more important than degrees.

Doctors who help people with cancer must be available by phone most of the time, and be able to supervise patients carefully. It is not the easiest job. Healing cancer can have its scary moments when healing reactions and flare-ups occur.

Stay committed. Plan to continue any natural therapy at least a year after obvious tumors have shrunk or one begins to feel better, in order to avoid relapses.

Read about your program and keep the faith. If you believe strongly in any program, you will tend to relax, follow directions better and have a better outcome. If you think you are wasting your time and money, no approach will tend to be as effective.

Rest a lot more. This is primary. Rest will help any healing process. Go to bed by 8:30 PM or earlier each night, nap each morning and afternoon, if possible, and try to get 9 to 12 hours of sleep every 24 hours. The early hours of the evening are the best times for rest. It is normal to feel exhausted at times when you are healing.

Drink three to four quarts of steam distilled or quality spring water each day, and no other. Of these, distilled water is the finest for detoxification. Spring water, however, is a better long-term drinking water. However, a year on distilled water is okay in these cases only.

Beware of designer waters and particularly alkaline water machines of all kinds. They are toxic in the long term and should be avoided, though they may help a little short term.

Do more coffee enemas and sauna therapy. These will not, in my experience, interfere at all with Protocol and they are an important part of the Kelley metabolic therapy. Note that the use of a near infrared light sauna was added very late in Dr. Kelley’s life, so many practitioners do not know about its benefits. However, according to Mrs. Pamela Mcdougle, the official Kelley program representative, one should not use a far infrared sauna. These can make you worse. It is easy to convert far infrared saunas to the near infrared light type by adding a few simple heat lamps. Visit www.drlwilson.com for details on how to do this.

Stay positive. Cancer cells may secrete substances that contribute to discouragement or depression. Natural ups and downs in the healing process can also cause fear and discouragement, even in the most seasoned health practitioner. Research by Drs. Simontons and others indicates that staying positive is critical for the best success.

Prepare for future difficulties by setting up a support system for yourself now. It may be a friend or family member who understands your desires and your program. It may be a practitioner you can call. However, it needs to be someone who knows you, knows what you are doing and agrees wholeheartedly with it. It must also be someone you trust.

Avoid naysayers and negative input. For example, a common attitude is if something goes wrong, just head for an emergency room or urgent care center. However, most personnel in
these facilities are ignorant concerning natural methods and healing reactions. Many doctors and nurses are, in fact, hostile toward alternative health care.

As a result, these places can make one feel even more afraid, which is not helpful. They also tend to medicate patients, even if it is not needed. While these facilities serve a critical role, they are rarely needed or helpful for most people on natural healing programs.

Exercise care about whom you speak with about your program. Thoughtless or stray words from doctors and others can have a great influence on anyone who is ill. Strictly avoid the naysayers if you really want to get well. Don’t even tell family members or others whom you know will not support your efforts.

- *Do not expect the support of family and friends when you do natural therapies.* This is sad, but true. Instead, be a wise pioneer and stay in touch with those who are succeeding.
- *Use whatever helps you to stay positive.* This might be prayer, affirmations, watching funny movies, reading about angels that heal people, taking a quiet walk every day, going to church, reading uplifting books and listening to inspiring CDs. The 23rd psalm helps many.
- *Think about your life.* Cancer often causes a person to question why he or she wants to be well at all. This is a challenge for those who have not examined their lives carefully, or who have lived less than wholesome lives. For this, I recommend spiritual reading, pastoral counseling, or other methods to dig deep and find out what you truly believe about life and your purpose in being here.
- *Think spiritually.* This means to know you are more than your physical body. This attitude alone allows one to have a greater love for the self and for the world as well. Many books and articles are available to you to help you learn about this.
- *Be realistic and grounded.* Always keep in touch with your practitioner. Cancer is not a do-it-yourself proposition at all, and not all reactions are good, by any means. Unrealistic and ungrounded thinking can cause death with cancer.
- *Finally, remember that miracles occasionally occur with any healing method, but usually common sense and hard work are most effective.*

**WHAT IF YOU ARE NOT SUCCEEDING?**

If the program you have chosen is not causing any changes within a few weeks, even subtle ones described below, it is probably not going to work. Fortunately, with the two methods described in this chapter, this rarely happens. Early changes may be subtle and even have little to do with your tumor or cancer. They may be emotional improvements, or you may notice more energy, or feel happier, or have less pain, even if the tumor has not changed. In fact, do not expect your tumor or even your general health to change quickly, in many cases.

At times, tumors temporarily grow a bit larger for a while. X-rays and blood tests may also look worse. This can be part of the process of tumor necrosis or destruction of the cancer. So, be sure to work with someone who understands this, and do not just pay attention to x-rays or other tests, which often cannot detect subtle changes inside tumors, for example.

However, if there are no changes at all, even subtle ones, do not waste time on something that is not getting you well. Stop what you are doing and change to a different approach.

In conclusion, cancer is not to be feared, though it should never be ignored. It is not an impossible challenge, no matter what any doctor says. You must be willing to follow a program faithfully and just relax with it. Learning to do this is a hidden benefit of a natural approach to cancer.
Laura, age 28, recently wrote to me that “I don’t remember ever feeling this good emotionally”. She had begun her program only three and a half months ago and had complained of fatigue, anxiety, brain fog, confusion, depression, irritability, mind racing, mood swings, obsessive/compulsive tendencies, panic attacks and seizures. She also had migraine headaches, sinus headaches, premenstrual tension and very poor tolerance of any stress. These are unfortunately common symptoms in thousands of young women today.

Three months later, her only complaints are minor degrees of mood swings, anxiety, fatigue, and some mind racing. Seizures have diminished from several per month to none.

When I first met Dr. Paul Eck in 1981, he told me that mineral levels, ratios and patterns on a hair analysis are closely related to our thoughts, emotions and behavior. Trained as a medical doctor, I found this difficult to believe. I recall not even wanting to talk about the idea with others, for fear they would laugh at me. However, I respected Dr. Eck’s brilliance, so I quietly decided to test his concepts in my own nutrition consulting practice.

I would send in a hair sample of a client and then interpret it the way Dr. Eck suggested in terms of psychological insights. Then I would ask many questions of the client to see if the hair analysis indicators seemed true. I was surprised again and again with the accuracy of the hair test. When I followed Dr. Eck’s suggestions fully, I also began hearing the positive reports, such as the cases in this book, of improvement in people’s anxiety, depression, bipolar symptoms and other mental health conditions. I came to share Dr. Eck’s excitement and love for this fascinating aspect of nutritional balancing science.

SECTION ORGANIZATION

This chapter and the following ones discuss the large topic of mental and emotional health in the following way:

- **Chapter 36** (this chapter): Principles of current and alternative mental health care, three basic levels of brain consciousness, three levels of brain functioning, and other topics including vitality, awareness, intent, intelligence, judgment and wisdom.
- **Chapter 37**: Level 1 or ‘basic computer’ disorders of human beings. These include memory loss, dementias, cognitive disorders, epilepsy, suicidal thoughts, Parkinson’s disease, and some developmental and learning disorders.
• **Chapter 38: Level 2 or ‘animal brain’ disorders.** These are mainly mood, affect and impulse control disorders and include depression, anxieties, bipolar disorder and others.

• **Chapter 39: Levels 3 or ‘tuning’ disorders.** The human brain can tune to various channels or frequencies like a television set. Disorders include narcissism, introversion, extroversion, psychism, mediumship, schizophrenia, violence, psychopathic and sociopathic behaviors.

• **Chapter 40: Combination and breakthrough disorders.** These include panic attacks, PTSD, phobias, hypoglycemic attacks, insomnia, narcolepsy and brain fog. This chapter also discusses mental or spiritual development. This has to do with enhancing all aspects of brain functioning using nutritional balancing science and perhaps other methods.

• **Chapter 41: Sexual aspects of minerals and nutritional balancing science.**

• **Chapter 42: The personality qualities of individual minerals.**

• **Chapter 43: Personality aspects of the major ratios and patterns on a hair analysis.**

**CURRENT MENTAL HEALTH SCREENING AND TREATMENT**

Modern psychiatry and psychology are largely based on diagnosing or labeling people. This normally results in drug treatments that 1) ignore horrible diets and unhealthy lifestyles, 2) add many toxins to the body and mind, 3) can have horrific side effects such as suicide and homicide, and 4) are still not that effective, in many instances, because they do not address deeper causes of many disorders.

In addition, psychologists do plenty of mental health screening. However, the screening tests are often not too accurate. For example, the Columbia Suicide Screen has a false positive rate of 84%. This means that out of every 100 children the test identifies as a “suicide risk”, 84 are falsely labeled. This kind of mislabeling can do psychological damage, as well as lead to drug dependency. Children in public school are labeled based on simple questionnaires, at times administered without parental permission. The latest example is called TeenScreen. Every parent should be aware of it. You may wish to keep your child out of school the day it is administered to avoid misdiagnoses and possible drug therapy based on a simple questionnaire.

**BASIC PRINCIPLES OF THE NUTRITIONAL BALANCING APPROACH**

Correction of mental and emotional problems with nutritional balancing is often quite simple. An early case that helped me understand the power of this program involved the mother of my assistant:

*Mrs. Markham was a middle-aged woman with such severe agoraphobia of 13 years duration that she rarely left her home. She lived three thousand miles away. Her daughter had her send us a hair sample. She had a very high copper level, as did her daughter. We mailed her diet suggestions and seven nutritional supplements to balance her body chemistry. I had not worked with phobias before, and did not know what to expect. Within six months, Mrs. Markham got completely well, according to her daughter, who spoke with her often and was herself quite skeptical about hair analysis and nutritional balancing.*

Concepts that can help explain how this is possible include:

- The mind-body link is far greater than is presumed.
- Toxic metals have profound effects on the brain and on behavior.
• The mind can often heal itself of many wounds and traumas when it receives what it needs nutritionally, and when toxins are released from the brain.

• Nutritional balancing seems to give a person a kind of ‘safe environment’ in which to heal, much the way a good counselor provides a safe environment for his patients. It is as though normalizing body chemistry works as a type of nutritional support system that greatly aids and facilitates mental and emotional healing.

• Retracing occurs in the mental and emotional realms. For example, memories and traumas can be associated with specific mineral levels, ratios and patterns. Thus, as a person retraces an old mineral pattern, memories and feelings associated with that mineral pattern can be brought to conscious awareness. This is a simple, safe and often very effective way to access buried feelings and traumas.

• Emotional traumas are layered in the body, as with physical imbalances. This fact can help one understand why a particular emotional symptom may hang on for a time, while another may resolve quickly. It can also help a person to stay with a nutritional balancing program to uncover deeper layers of both physical and mental imbalances.

HIDDEN TRAUMAS AND THE STRESS RESPONSE

I think of a trauma as a shock to the brain and nervous system that is so severe it cannot be processed and resolved at a person’s present level of awareness and functioning. As a result, the body and brain attempt to avoid, compensate or work around the memory of the event in various ways. Unfortunately, these unresolved traumas alter the functioning of the brain in often very dramatic and serious ways. Also, most are unconscious, so the person does not even realize the compensation is occurring. The original shock often occurs early in life, and a person may build an entire personality around the effects of the trauma.

• Emotional wounds. The most common type of traumas are situations or events that simply overload a child’s nervous system. For example, if a girl was sexually molested at a young age, she may block out the unpleasant experience at a conscious level, but it continues to color her responses to stress for the rest of her life in odd ways. She may find herself uninterested in men and more interested in sex with women. In other cases, she may find herself oddly attracted to scoundrels or even violent men, one of whom she may marry. This, in turn, causes untold suffering, unhappiness, and often results in illness or even her early death.

• Biochemical traumas. A common traumatic event for babies is a very fast oxidation rate. This can cause fear, anxiety, paranoia and other deep feelings and emotions. These may then color one’s childhood, and indeed the rest of one’s life. Another biochemical trauma might be the presence of excessive mercury or copper in the brain. This upsets the body, and may cause a person to adjust to it by developing personality idiosyncrasies that allow one to cope better with the effects of the toxins in the brain. Even an accident could cause a structural imbalance that one must compensate for. This could alter the personality and the body structure for life, or at least until it can be properly healed.

Hidden traumas affect most people, and are commonly released during nutritional balancing programs. Reasons why this occurs so often with this approach are:

• Increasing adaptive energy, of itself, causes healing. More adaptive energy, all by itself, improves thinking, perception, memory and other mental faculties. This may allow a person to re-experience and heal an old emotional trauma or wound completely. A severe emotional
trauma may require several flare-ups or healing crises before it is completely resolved. This healing effect of nutritional balancing can also be used in conjunction with psychotherapeutic or other types of interventions to enhance their effectiveness.

- **Removing toxic metals.** By itself, this can bring up certain memories or emotions, in our experience. This may seem unusual. Later chapters in this section explain how toxic metals can relate to specific emotions.
- **Retracing mineral patterns that one was in years ago, such as a low sodium/potassium ratio, may trigger a long-suppressed memory.** This can also help uncover and resolve old traumas.
- **Heating the body, particularly with a near infrared sauna.** This activates thousands of enzymes and speeds the removal of toxins of all kinds. The process can also definitely trigger memories and thus help resolve old physical and emotional problems.
- **Creating a biochemically safe internal environment can help bring up and resolve traumas.** This is due to reducing internal stress on the body, particularly stress on the nervous system.
- **Balancing the oxidation rate and other aspects of yin and yang forces in the body enhances all healing, including the resolution of deeply-buried traumas.**
- **More zinc and selenium, in particular, appear to have specific healing effects upon the emotions and the brain structures of most people.** They may enhance or activate specific brain centers that then allow a person to relax, perceive better, and more easily resolve stubborn conflicts and traumas.
- **The Roy Masters meditation exercise is designed specifically to bring up and resolve old traumas.** It works wonderfully, especially for some types of conflicts and traumas.
- **Studying the correct intellectual material, as suggested in Chapters 2 and 6, may also bring up and help resolve and release certain conflicts and traumas for some people.**

**THREE TYPES OF BRAIN CONSCIOUSNESS**

The brain is by far the most complex and delicate organ of the human body. It is the crowning achievement of mankind and works in ways not shared by any of the higher animals. It is also prone to a great number of dysfunctions. The standard classification of these problems is found in the *Diagnostic And Statistical Manual of Mental Disorders* or the DSM.

A possible way to simplify and understand all these dysfunctions is to divide human consciousness into three types based purely on the evolutionary levels of the brain. These are 1) a mechanical level, 2) an animal-brain level and 3) a human or ‘tuning’ level. Let us explore each of these.

**Level 1. The physical or simple ‘computer’ level of brain functioning.** This level of functioning is similar to a computer in many ways. It basically involves memory and processing abilities. This level of functioning is shared by animals and perhaps even by some higher plant life as well. Disorders that fall into this category include:

- **Memory disorders such as amnesias and dementias.**
- **Thought or cognitive disorders other than memory impairment.** These include delirium, neuroses, fixations, the effect of addictions and others.
- **Other thought disorders include factitious disorder, malingering, masochism, sadism and perhaps others.**
The basic emotions of attraction and repulsion, sometimes falsely called love and hate, are also on this level. Even plants know when to grow toward or grow away from certain soil, temperature or water conditions. While these may not seem like emotions, they are technically movements or motions at the most primary level.

Level 2. The animal or emotional level. Animals share this level of functioning with human beings to a large degree. Animals feel things and are subject to disordered feelings and emotions. Dysfunctions that affect primarily this level include:

- Mood disorders such as anxieties, depression, bipolar disorder and others.
- Impulse control disorders such as pyromania and kleptomania.
- Somatoform disorders such as hysteria, hypochondria and most sexual disorders.

Level 3. The human, ‘tuning’ or spiritual level. This level of functioning is mainly limited to human beings. Higher animals may possess some of its capabilities, but usually not much. This level concerns a unique human ability called tuning. It is the concept that the human brain can literally tune itself to different dimensions of consciousness. It is somewhat like tuning a radio to various stations. When tuning is working correctly, we are present in the physical dimension, we can read situations more or less correctly, and we can tune in or relate to others easily and fully. When the tuning function does not work right, the following may occur:

- Introversion. This is tuning into oneself, often excessively and in a morbid way.
- Narcissism. This is also a form of tuning into oneself, often to the exclusion of others.
- Autism. Some autistic children tune to themselves and seem to tune out the world.
- Psychic tuning. Psychics and mediums seem able to tune into the realm of dead people, spirits and, at times, other beings.
- Schizoid disorders, spaciness or detachment. This is common and associated with children and with copper toxicity.
- Schizophrenias. In this dysfunction, one tunes permanently to a different dimension, often with visual and auditory hallucinations and delusions that can be extremely frightening.
- Psychopathology and sociopathology. In this dysfunction, a person tunes out society and caring about others. These people seem to lose touch with the human dimension of living. They tune into their own thoughts and animal desires in most cases. They lose regard for human life, property and all human compassion as a result. As a result, they take risks and harm others in ways that are clearly illegal and immoral.

Tuning dysfunctions are the most dangerous, in most cases. They are also the most interesting for psychiatrists because of the rich variety and interesting symptom pictures.

Combination and breakthrough disorders. These involve more than one of the levels described above. Simple combination disorders include brain fog, malaise, insomnia, narcolepsy and perhaps other personality disorders, some dissociative disorders, and perhaps some sexual and eating disorders.

Breakthrough disorders may occur when a lower level of functioning ‘breaks through’ and influences a higher level of brain functioning. Examples are post-traumatic stress disorder, panic attacks, phobias, hypoglycemic attacks, iron breakthrough disorder and perhaps others.
Another kind of breakthrough disorder involves sporadic material from other realms that suddenly impinges upon or ‘breaks through’ to waking consciousness. Examples are psychic or intuitive flashes or revelations, or, for example, hearing a voice from out of nowhere that warns you of an impending disaster so you can avoid it.

One can say this is a type of schizophrenia. However, it differs in that 1) it is random without any pattern and 2) it is not dysfunctional in the same way as schizophrenia. It may even be called inspirational or genius if the material that comes through is of a high quality, such as a brilliant invention that one just wakes up knowing about. A composer might suddenly hear a new symphony that just seems to play in the head. Religious people may suddenly receive a ‘message from God’, for example, or hear a choir of angels. Such incidents are difficult to explain unless viewed as a type of breakthrough phenomenon.

CONSCIOUS, SUBCONSCIOUS AND SUPERCONSCIOUS FUNCTIONING

This is an older concept of mental health that may also be extremely helpful. It ties in closely with nutritional balancing science in some surprising ways. Two basic types of brain functioning are the conscious and the unconscious aspects of the mind. The unconscious includes the subconscious and the superconscious minds. Let us explore these aspects.

The conscious mind. This is all that one is aware of during the time one is fully awake. It includes our thoughts, memories, emotional content and perhaps even some of our dreams as they relate to our conscious daily activities.

The subconscious. This refers to all that a person is not aware of when fully awake. It includes buried memories and traumas that one cannot face consciously. It may also include hidden motives, buried fears and desires, and more. In fact, the human mind is like a gigantic computer with thousands of programs running in the background, most of which are completely unavailable to the person consciously. Many conflict with each other and use up valuable memory and processing capabilities. This is a dilemma many people face every day.

The superconscious. This is not part of mainstream psychology or psychiatry. It is included because it is a fact, in my experience. It consists of hunches, intuitions and other insights that one receives from elsewhere. It might come through as the unfoldment of a talent such as playing the piano or a brilliance in physics, perhaps. Another example might be praying for help and suddenly getting an idea as to what to do. This might come from the subconscious mind, but plenty of stories and dreams attest to the fact that human beings can receive guidance from other realms, usually in answer to prayers. The superconscious was not recognized by Sigmund Freud, MD, the father of modern psychiatry. However, he knew that, at times, very positive information can break through into waking awareness. He believed that dreams were the main way this happens, which is true if one pays attention to one’s dreams. If one ignores dreams, much of this information is lost to waking consciousness.

PROBLEMS WITH AN UNTAMED UNCONSCIOUS MIND

The importance of discussing the unconscious mind is to emphasize just how little of our minds most of us control. Sigmund Freud and others knew this over 100 years ago. However, most people, including most medical doctors, still worship the conscious mind and pay very little attention to what lurks beneath. Problems with an uncontrolled unconscious mind are:
• *It is usually very disorganized.* This means some thoughts conflict with others, so it is basically a jumble of impressions that make little logical sense. It is like a computer with thousands of conflicting and confusing programs.

• *Since these ‘mental computer programs’ take up a lot of memory and processor capability, they hamper learning and general mental functioning.* This is like an overloaded computer that runs slowly and poorly as a result of all the programs running in the background.

Consequences of this common situation include:

• *Poor decision-making.* Decisions are too often based on one’s old emotional wounds or traumas, rather than on common sense and logic. It is like a computer basing its output on old, hidden programs that are often irrelevant and even conflict with each other.

• *Inability to stay focused in the present.* This is due to the hidden influence of so much material from the past, plus anxiety over the future.

• *Wasting time trying to process the unconscious material but with little success.* This is like a person trying to uninstall old computer programs without knowing how to do it properly. Human beings often try to resolve their emotional traumas by entering professions such as psychology, or marrying a person who resembles the parent who abused them, or in other non-productive ways.

• *Frustration, anger, negativity and often depression eventually set in because the mind does not work well.*

This describes the life of millions of people today. Let us examine this in more detail.

A disorganized mass. Most unconscious material is a jumble of ideas, impressions, memories and traumas. In this sense, the human is far worse off than most computers. At least their programs are limited in number and well-organized, even if unnecessary. Most children are simply not able to organize all of their experiences very well because they are growing very fast and many lack an adequate structural framework for integrating their experiences. Many also simply do not have the time or don’t take the time to sit quietly and organize their world. Some are better at it than others.

Religion, more than any other activity of human beings, offers a way to organize the chaos of daily life. This is why religion is so important for human beings. Perhaps it is why systems such as communism and fascism that attempt to do away with the people’s religious beliefs, always fail. Taking the time to process one’s life is a problem that is solved today in part by children staring at computer screens. It used to be handled by sitting in front of a teacher at school or reading a book. The computer screen works, but is far too interactive for real contemplation. This is one reason for ADD, ADHD and perhaps even autism in some cases. The children simply cannot process their lives well enough.

Adults usually have a little more time for processing, but not much today. In past years when life was slower, it was far easier. As a result, more and more adults who have never adequately processed their own lives are raising children whom they cannot assist very well to organize their reality. This just compounds the difficulties of the children. The school system today makes the problem even worse by focusing on test scores rather than self-understanding and self-awareness techniques such as meditation. Once again, religion, while far from perfect,
is helpful to provide guidelines for raising children and for many other activities as well. It is one reason for the current popularity of very structured religions like Islam.

**Unconscious material conflicts with itself.** Unprocessed or unintegrated mental material will tend to contain some conflicts. For example, some memories of one’s father will be positive, while other will be negative.

**Taking up valuable memory and processing ability.** Constant attempts to organize the often conflicting unconscious thoughts, feelings, memories and desires take up a person’s time and mental energy. It can upset sleep and impair learning because the person is not very present. Instead, the mind wanders and daydreams, lost in its own unconscious thoughts much of the time. This is like a computer that runs poorly and slowly because it is always processing something in the background.

**The dark force or power in most people’s lives.** The most destructive aspect of the unconscious is that it silently and secretly influences every decision one makes. This occurs because we all consult the unconscious often. This is unavoidable and the way we are “wired”. If the unconscious is disorganized, our decisions will often be somewhat random or affected in odd ways by our conflicting unconscious material.

**Severe health problems.** The mass of disorganized mental material usually causes poor health due to chaotic lifestyles. The person is often torn in several directions and unable to integrate the lifestyle in a healthy manner.

**Breakthroughs occur.** At times, an old thought or memory breaks through to consciousness and overwhelms a person. This is commonly the case with post-traumatic stress disorder. The person can hardly function because nightmares and negative thoughts dominate the mind. He or she may become self-destructive or may harm others because judgment is seriously impaired. This is like a pop-up message or banner that suddenly appears on a computer screen and obscures most of the screen. The analogy is good, except it is far worse in human beings because the pop-up memory obscures rational judgment and decision-making. These breakthroughs can occur at any time, such as when one is driving or when a pilot is flying an airliner with several hundred on board. It is a dangerous phenomenon that happens more than one may think.

**Becoming negative.** An end result of all the above is that most people eventually turn negative and discouraged. They give up hope they will ever heal their mental affliction. This is a common cause of fatigue and depression today as people begin to feel overwhelmed with all the stimulation and distractions in their lives.

**Healing the unconscious.** This is a long process. More rest, a healthful diet and lifestyle, the proper drinking water, daily use of a near infrared sauna and the Roy Masters meditation exercise can work together to move the process along in a wonderful way.

**THE VITALITY PRINCIPLE IN THE NUTRITIONAL BALANCING APPROACH TO MENTAL AND EMOTIONAL HEALTH**

This principle is discussed in a general way in Chapters 8 and 25. However, it has special applications in the field of psychology in the following ways:
• **High vitality is required for adequate mental activity.** This is the most critical aspect, and why nutritional balancing encourages more rest and sleep, including going to bed by 9 PM every night or even earlier if one is tired.

• **The body will suppress or block feelings, memories, perceptions and other mental activity if adaptive energy is too low.** Autism, depression and perhaps other mental conditions could be, at least in part, methods of partial withdrawal due to an impaired level of energy.

• **Energy is even required to feel feelings.** This means that as energy declines, a person simply cannot feel and process their experiences nearly as well.

• **Healing old emotional traumas requires very high energy or vitality in some cases.** This can explain why many cannot heal their traumas even with help from counselors and others.

• **Depression, emotional withdrawal and even suicide can be ways a person may decide to cope with very low energy.** This is a very important concept regarding the nature and treatment of depression and suicidal tendencies. Most often, the energetic component of these disorders is overlooked, at times with disastrous consequences.

• **Decision-making is often unconsciously based on conserving adaptive energy.**

• **Enhancing adaptive energy alone, using nutritional balancing, often causes emotional retracing.** Long-forgotten traumas, memories, feelings, perception and beliefs may suddenly arise, seemingly out of nowhere. One may be shocked at the thoughts and feelings that lie dormant within, as they are brought up for review and release. The only trigger needed, at times, is an increase in one’s vitality.

• **Low vitality alone might cause a brittle or unstable personality.** For example, such a person may develop anxiety attacks or major depression from a seemingly minor shock such as a squabble at work or a pet becoming ill. The person seemed stable, but was ‘running on empty’. This is common today, due, in part, to low-quality foods in the diet, insufficient rest and other types of internal and external stress factors.

• **A person’s vitality level very often determines his overall outlook on life.** For example, high vitality is associated with greater self-confidence and a more positive outlook on life.

• **Increasing adaptive energy with nutritional balancing therapy will enhance the effectiveness of most other medical and psychological interventions.**

• **The vitality level often influences a person’s control strategy.** Fast oxidizers with higher energy often control overtly with threats, intimidation or a physical show of force. Slow oxidizers or anyone with low energy tend to control through seduction, spoiling, enabling, false ‘going along’, secretive plotting and other methods that do not require as much vitality.

• **Identity is, in part, determined in many people by the adaptive energy level during the formative childhood years.** For example, if a person was sickly and often tired as a child, he or she may grow up believing this is “who I am”. One can build an entire identity around traits such as fatigue, mental confusion, or believing one is stupid. In fact, it was just an energy problem that occurred during the formative years.

• **Once formed, an identity based upon energetic imbalances may be hard to change.** This is one reason to work with children as close to birth as possible so they grow up free of false perceptions about themselves and instead grow up centered and mentally healthy.

• **Excellent vitality is also needed for mental development or enhancement.**

### QUALITIES OF THE MIND AND SPIRIT

The meaning of certain common words is often confused and confusing. This short
section briefly explores the meaning of words such as awareness, intent, integrity, intelligence, mental balance, good judgment, well-adjusted and wisdom.

**Awareness.** This concept has to do with how well a person is tuned into his immediate environment. It answers the question: What is going on around me? Reduced awareness is associated with low vitality, brain fog, distractibility, a lack of grounding or centeredness, ADD, delirium and spaciness. A reasonable level of awareness is a prerequisite for intelligence, certain abilities, good judgment and wisdom. Awareness can actually be at many levels. Animals, for example, are often far more aware of scents and sounds than humans. However, they are less aware on other levels such as the intellectual and spiritual levels. Any biochemical imbalance may affect awareness. However, the most important hair analysis patterns associated with reduced awareness include:

- **Low zinc and selenium.** Few people today have enough of these minerals. Since they are needed for important centers in the brain, this causes lowered awareness in millions of people today. Few tests, including hair mineral analysis, can reveal this clearly all the time.
- **Low energy patterns.** The main ones include a low sodium/potassium ratio, very slow oxidation, a calcium shell and a four lows pattern.
- **Resistance-to-change patterns, also called stalled transition patterns.** These include fast oxidation with a low sodium/potassium ratio, sympathetic dominance, four highs and four lows. A person may intentionally lower his awareness with these patterns to slow some kind of change. Alternatively, a reduced awareness level can lead to these patterns.
- **Elevated toxic metals.** All toxic metals are neurotoxic and tend to lower awareness, though in different ways depending on the metal:
  - **Copper** causes spaciness or slight detachment from reality. When extreme, copper toxicity causes hallucinations, delusions and some schizophrenias.
  - **Mercury** causes odd behavior and twisted reasoning that reduces awareness.
  - **Lead** dulls perception and understanding. It is associated with a reduced IQ, for example, and this definitely reduces one’s awareness.
  - **Arsenic** and **nickel** have effects somewhat like lead.
  - **Cadmium** irritates and stimulates the brain, which may alter awareness. Cadmium is also associated with a male trait of risk-taking. At times this is good. However, it can be due to a lowered level of awareness.
  - **Aluminum** dulls awareness in ways that affect memory more than other areas of the mind.
  - **Manganese** toxicity is associated with a type of schizophrenic behavior that is quite different from the schizophrenic tendencies associated with copper imbalance. Manganese imbalance is much less emotional and seems totally emotionally detached, another form of lowered awareness.
  - **Iron toxicity** causes anger and rage. This always tends to reduce awareness.

**Intent.** This has to do with motives, deep desires and the general direction of a person’s life. It answers the question: Who am I and why am I here? If a person is motivated by something hopeful and spiritually-oriented, his mental health will often be at least decent. However, if the intent or motive for action is something selfish, superficial or purely material, mental health is likely to be worse.
If one’s intent is to be and do your best, to be as honest and direct as possible, and to be of great service, mental health is often superb. In nutritional balancing science, intent is important because many stress patterns, lifestyle problems and mental illnesses arise from faulty intent. For example, a person who wants to please everyone often runs around too much and does not rest enough. This causes adrenal exhaustion, often at a young age. Such a person will also become depressed or angry when others do not respond the way the person desires. One who wants to dominate others often becomes exhausted from the mental effort of holding on to those around himself. In this way, intent has much to do with both physical and mental health.

**Hair analysis patterns associated with faulty intent.** A hair analysis offers subtle clues about intent. Patterns include:

- **Fast oxidation.** The intent is to fight hard against perceived enemies or stress.
- **Slow oxidation.** The intent is to maintain oneself in a type of lower stress holding pattern.
- **Sympathetic dominance.** The intent is often to make something happen by the force of will. The person is trying hard and pushing himself in some way, physically or emotionally. It is a common cause of fatigue, anxiety and sometimes depression when it doesn’t work out.
- **A calcium shell.** The intent may be to withdraw or protect oneself from the world by becoming somewhat numbed. This is often used by sensitive individuals to allow them to function in a world they do not understand well or do not relate well within. It can work well, but eventually causes physical ailments.
- **Moving quickly through the oxidation types.** This may indicate a self-destructive intent for some reason, because it usually signals a person who is burning himself out at a young age.
- **Spiritual defensiveness pattern.** The intent may be to please another or continue with a job, relationship or attitude, even though it is not working well.
- **Low sodium/potassium ratio.** This can just be a burnout pattern. However, it can also signal a stubborn intent to continue on a set path, even when it is not working well.

**Integrity.** This word literally means whole and complete. It may answer the question: How do I live? Integrity has to do with honesty, courage, moral character and a genuine, integrated and consistently reasoned approach to life. A high level of integrity helps greatly with mental health, as well as with the healing of physical ailments. A strongly moral intent and integrity are also perhaps the most important traits for spiritual advancement.

**Intelligence.** This has to do with how well a person uses the mind. It may answer the question: What am I capable of? It is very important, but not that easy to measure. IQ tests are somewhat biased and can only narrowly define intelligence as knowledge of a certain type. For example, these tests cannot determine who will make the best mother. Nor do they measure qualities such as compassion, judgment, memory for details, ability to size up people intuitively and many others. Intelligence definitely involves memory, cognition, processing speed and the tuning function of the brain.

Biochemical factors that are known to lower intelligence include lead and mercury toxicity, B-complex vitamin deficiencies, myxedema, hypothyroidism, cretinism, Down’s syndrome, a high level of fluoride in the body, low iodine and perhaps others.

**Good judgment.** Judgment has to do with action and decisions in particular situations. It may answer the question: How do I act at a particular time? It often involves knowledge,
intelligence, intent and awareness all at the same time. For excellent judgment, one must be fully aware of the facts of the situation. Then one can use one’s intelligence, driven by right intent, to discern the best course of action. If any of these traits are lacking, judgment will suffer.

**Mental balance.** This refers to mental flexibility, good emotional control, and good judgment. It may also refer to a strong connection between ‘the head and the heart’, meaning that one is able to balance reason with intuition and feeling.

**Mental wellness.** This might refer to a person’s ability to maintain mental balance and calmness in the face of mental and emotional stressors and challenges. One can often tell a person who is well mentally because they welcome mental challenges such as learning new skills, dealing with emotional issues, or other types of challenges that frighten others who are less stable or who are not functioning as well mentally and emotionally.

Nutrition is just one factor in mental wellness, but it is a critical one today in many cases. Another factor is how well one has processed his subconscious mental and emotional material so that it does not burden or restrict one too much.

**Well-adjusted.** This term usually refers to a person who can get along well with others in social situations. It is a desirable social trait that may have to do with tolerance, poise, or being somewhat outgoing personality and perhaps self-confidence or a pleasing smile. Well-adjusted, however, can mean a person who has simply learned to go along with the crowd. This is not necessarily a helpful way to live. I would also not regard it as truly well-adjusted, but simply able to blend with others in social situations.

**Wisdom.** This word is somewhat out of fashion. It is always a combination trait that begins with excellent intent and integrity. It also requires high intelligence, some knowledge, excellent awareness, and good judgment in action. In ancient Oriental texts and in the bible, wisdom was always the overriding goal of all people. Nutritional balancing, by correcting imbalances at many levels, hopefully will help our society and its inhabitants to learn more about this elusive and important human trait.
Jonan was 22 months old, and had hardly grown since birth. His mother had taken him to large medical centers and several holistic doctors. Hundreds of tests were run. Various drugs and nutrients were tried and seemed to make him more ill. The worst was a “very safe” oral chelation product containing only pectin and alginates. Two doses caused intense back spasms, crying and a reversal of progress with weight loss, instead of gain.

A chiropractor finally ran a hair test by a well-known lab, but one that washes the hair. It revealed a slow oxidizer pattern with a low sodium/potassium ratio. The mother asked me to set up a nutritional balancing program based upon it. Though somewhat uncomfortable, I agreed as I thought it would save some time and money. This turned out to be a mistake. The baby did not respond within a week, which seemed odd. I immediately decided to run another hair test with Analytical Research Labs, a laboratory that does not wash the hair. Results were surprisingly different, and revealed a four lows pattern. This is unheard of in babies, and I had never seen one in a child this young. Jonan also had severe cadmium and mercury toxicity. These are often associated with persistent delayed development or PDD.

The presence of four lows probably explained why many other healing approaches had failed, as this is very common. It took Dr. Eck years to figure out how to handle this rather peculiar metabolic pattern. The baby responded to a four lows program within a day or two and was soon much more relaxed and growing once again. Based on this experience and a few others, I realized I ought not use a hair mineral analysis from a lab that washes the hair unless there is absolutely no alternative.

**Case #2.** Jason was two years old and extremely hyperactive. He had hardly slept through a night since he was born. He quickly became known as 'the holy terror' at my office. His first hair test revealed low levels of calcium, magnesium and zinc, very high sodium and potassium levels, a low sodium/potassium ratio and high toxic metals including iron. This is a common pattern with ADHD children. They are in a perpetual fight-or-flight pattern. In this instance, Jason may have been born with high iron from an iron-toxic mother. It might have also come from formula enriched with iron, a dreadful item to give most young children in developed nations because they don’t need it. Children in the tropics may have parasitic infections and require some added iron, but this is much rarer in developed nations.

Jason’s mother called within a few days after he began his nutritional balancing program to report that he was like a different child. She wished she had come in sooner. He calmed down and his disposition improved dramatically. I also explained to his mother how she
can ‘adjust his behavior’ by increasing or decreasing the amount of calcium and magnesium supplements she gave him. This ability is another advantage of nutritional balancing, in that it is safe for parents to adjust the dosages according to the child’s need, without fear of overdosing their babies on a drug, for example.

What I am calling **Level One** brain activity has to do with basic *computer* type of functions. These include memory and processing abilities. Like a modern computer, the brain’s processor abilities are many and varied. They include higher-speed activities, multi-tasking, calculating and much more. This level also has much to do with *brain architecture*. This is the physical structure of the brain. It can be affected by genetic abnormalities, physical injuries, infections, certain toxins or brain tumors. Disorders at this level include:

- **All memory conditions such as amnesia, simple memory loss and dementias.**
- **Learning disorders of children, in particular, such as dyslexia and many others.**
- **Developmental delays and conditions such as ADD, ADHD, some autism, persistent developmental delay (PDD) and others.**
- **Other thought or cognitive disorders such as delirium due to a blow to the head.**
- **Suicide is included in this chapter.** It is not a disorder, but may relate to this level of brain functioning in some way.
- **Others might include Parkinson’s disease, brain infections, and epilepsy.**

**MEMORY LOSS, AMNESIAS AND DEMENTIAS**

Memory in a human being is not as simple as computer memory. It involves a person’s ability to focus on the material to be learned, and then to recall it easily, later. It may be viewed as a skill in many ways that some people learn early in life while others do not. However, it also has a physical component, like a computer that can lose data over time.

**Memory loss.** This is becoming more common as the population becomes more toxic and nutritionally depleted. A poor memory is a common complaint in doctors’ offices. This is not the same as dementia, which is a far more advanced degeneration of the brain.

Simple memory loss, for example, is common today in children whose brains are loaded with aluminum and other toxic metals. As the metals are removed, children’s school grades often climb quickly. Memory disorders can also be due to attention deficit, impaired energy production at the cellular level, lack of sleep, hypoglycemia and simple nutrient deficiencies.

**Dementias.** These are tragic and very costly to treat. Preventing dementia is easy in many instances by living healthfully, eating well, avoiding toxic exposures, and obtaining plenty of rest. Anyone over about 60 should take a powerful digestive aid and eat meat to obtain vitamin B12. Many older people would benefit from preventive B12 shots once a month or so. Using the mind seems to help, as does some daily exercise and deep breathing.

Early cases of dementia often respond to nutritional balancing, especially if the cause is toxic metals that can be removed quickly. Later stage cases can be more difficult to reverse, especially if there is permanent brain damage. In addition to toxic metals, dementia may occur due to arteriosclerosis in the vessels of the brain, impaired oxygenation of the body, impaired hydration, low vitality, subtle diabetes, deficiencies of essential fatty acids, vitamin and mineral deficiencies, especially vitamin B12, and perhaps even structural imbalances that occur often.
with accidents, falls or just aging. Medical drugs that lodge in the brain such as anesthesia can certainly contribute to some cases of memory and other mental disorders.

I have also read of dementias that respond amazingly well to supplements of medium chain triglyceride or MCT (medium chain triglycerides) oil, phosphatidyl serine or other nutritional supplements. Each case is actually different due to many possible causes.

A possible problem with nutritional balancing in those with dementia is difficulty following a dietary and supplement regimen.

LEARNING DISORDERS

Learning disorders encompass a wide variety of disorders from dyslexia and stuttering to easy distractibility, ADD, ADHD and others. General comments about these disorders are:

• *Most involve disordered body chemistry.* A few cases mainly involve stress, a very sensitive child, or a problem in the learning environment such as the effect of other students, the type of lessons offered or toxic chemicals in the school or even the home.
• *Since biochemistry is often involved, most of these children respond extremely well to nutritional balancing programs.*
• *Food sensitivities are commonly involved in learning and behavioral disorders of children and sometimes of adults as well.* Attention to the diet is most important, and food allergy testing may be very helpful if progress on a nutritional balancing program is slow. Eating sugar, artificial sweeteners and stimulants are always problematic.

DYSLEXIA

Dyslexia is often a copper-related syndrome. It may respond to nutritional balancing programs, although dyslexia goes deeper than just copper toxicity. It is an altered perception of letters and numbers that has to do with brain integration, which is somewhat different. Nutritional balancing can be helpful to calm the person’s mind, and this can assist with brain integration. Other techniques may be necessary along with a nutritional balancing program for full correction of this common condition. A good book on this subject is *The Gift of Dyslexia* by Ronald D. Davis and Eldon M. Braun (1997, 2010)

AUTISM

Autistic children are often very bright, but are poisoned with vaccines, medical drugs and other toxins acquired in utero or afterwards. They may decide to withdraw into a self-made world. This is mainly the situation with this sad condition that is sweeping across America and spreading elsewhere as well. An important hint as to the cause of this epidemic is the fact that autism is a new disorder. It was unknown before the late 1940s or 1950s. This is when the number of drugs and vaccines, especially combinations of vaccines, increased dramatically in America, in particular. Today, young mothers are third generation vaccine-poisoned. Mercury is still added to some of these shots, including flu shots. The problems with vaccines are discussed in Chapter 34.

Other contributors to the epidemic are poor quality diets, and medical and other toxins in the bodies of mothers, not enough breast feeding of infants, and overall higher stress levels in
families today. Autism is actually not one disorder, but a spectrum of disabilities ranging from very mild social anxiety to extreme anti-social and withdrawal tendencies.

More research is NOT needed about this condition, in my view. That is just a poor excuse to ignore known facts about this horror. *Autism is preventable and mainly a doctor-caused or iatrogenic disease.* For example, according to research by Dan Olmstead, there is NO autism among the Amish. This group does not vaccinate their children, and they eat better food, live simpler lives and tend to take many fewer medical drugs, as well.

**Correction.** Nutritional balancing is extremely helpful for most, if not all cases that I have encountered. Several patterns are common on hair mineral analyses of autistic children. Among them are very fast oxidation with a low sodium/potassium ratio, and always toxic metals. These may include manganese, iron, aluminum, copper and perhaps mercury toxicity, though they may not be revealed on early tests. At times, the symptoms of autism are identical to the symptoms of *mercury toxicity.* Mercury continues to be added to vaccines, flu shots and spewed into the air by coal-burning power plants in many nations of the world. Studies suggest that autistic children have more difficulty eliminating toxic metals than other children.

*Food allergies* always play a role in cases of autism, along with most instances of ADD, ADHD and other childhood diseases. Most of these children feel better on a gluten-free and casein-free diet. Nutritional balancing programs offer far more for these children, however, as they almost all have severe imbalances in their body chemistry.

Autism is so serious and so costly it deserves thousands of times more attention than it receives. Discussions of health care reform make little sense until this occurs. The needed reform is to stop the dangerous practices that are destroying a normal life for 1 of every 100 or more children in America and, to some degree, children around the world.

**ADD AND ADHD.** Causes for ADD and ADHD revealed on hair mineral analyses include fast oxidation in younger children. Most are deficient in calcium, magnesium and zinc, the *sedative minerals.* These minerals also act as *psychological buffer elements,* meaning they are needed to protect a child from all kinds of stressful situations. Without them, the child becomes hyper-irritable, anxious and easily upset.

These children need a fast oxidizer diet with no sweets or fruit, preferably, along with supplements of calcium, magnesium and other elements such as zinc and copper in the right balance. With this simple regimen, they will often calm down in a few days to a week or two. Deeper correction of food sensitivities and toxic metals will take a little longer. It is definitely worth keeping a child on a nutritional balancing program for a year or several years to correct these deeper imbalances that were often present from birth.

Older children and adults with ADD are usually in slow oxidation, although not all of them. Most have copper toxicity and many other imbalances on hair mineral analyses. Toxic metals that often play a role include iron, lead, cadmium, aluminum and mercury. Four lows, a high or low sodium/potassium ratio and sympathetic dominance may also be present. As the metals are removed and the body chemistry balanced, most parents report their children turn sweet and gentle in almost unbelievable ways. School or work performance also improve significantly as the person calms down. ADD in adults may also be due to deeper emotional imbalances that can be harder to correct, and therefore may take longer for full correction.
BIRTH DEFECTS AND OTHER DEVELOPMENTAL DELAYS

In almost all cases of birth defects, a hair analysis reveals an extremely low zinc level. In most cases, other toxic metals are excessive, as well. Based on these facts, I believe most birth defects and developmental delays are preventable if young mothers-to-be were tested using a properly performed and correctly interpreted hair analysis. All mothers-to-be should follow a nutritional balancing program to renourish their bodies before and during pregnancy, in order to have healthy babies.

Many children with birth defects improve, and some respond excellently with nutritional balancing. The degree of improvement depends a lot on the particular defect, the age of the child when beginning a program, and the willingness of the parents to follow the program strictly. In most cases, the child has other problems such as food sensitivities, infections and perhaps others. Important factors to consider when working with all babies and young children, especially those with developmental disorders, include:

- All babies and children must take omega 3-rich oil for brain development.
- There is never a reason for constipation in a baby. Just place a little Epsom salts or magnesium in the milk or other food until it goes away.
- A baby’s digestive system is ultra-sensitive to anything but mother’s milk in most cases. If possible, rely on mother’s milk until age 3. If this is not possible, a raw, certified animal milk is often next best. Avoid soy formula or commercial formula, if at all possible.
- Children’s digestive systems, even with food allergies, are in good condition compared to most adults. They have not had time to destroy it with food chemicals, drugs, unhealthy lifestyles and poor eating habits. As a result, few supplements are needed, provided a baby or child’s diet is good. Results are often worse when holistic doctors give more than two or three nutritional products to babies or more than about five products for children.
- Even symptomatic homeopathics or herbs can complicate matters and make a baby worse.
- Every child under age 8 or so should be considered similar to a fast oxidizer. This means that if a slow oxidizer pattern is showing on the hair test, it is usually temporary and will change to fast oxidation as the child heals. As a result, avoid most fruit and all sweets for children. Even low-fat milk is too sweet. Always use full-fat milk unless, for some reason, the fat is bothering the child. Cultured milk products are even less sweet and may work better, such as certified raw plain yogurt, kefir and similar products.

DELIRIUM AND OTHER COGNITIVE OR THOUGHT DISORDERS

Delirium is defined as any change in consciousness or awareness accompanied by a change in cognition that develops rapidly and cannot be accounted for as being part of a dementia. It usually develops over a period of hours or days, and may be due to a medical condition, a toxin, substance abuse or withdrawal, or some other cause. Alterations of brain function might include perceptual, sensory, speech, delusional and other types of cognitive problems.

Since this may be an acute and possibly just a toxic condition, it may respond beautifully to coffee enemas, infrared saunas, lots of rest, and drinking only distilled water for a few days. Taking calcium and magnesium in large doses may also calm a person down, at least until a hair analysis can be done to identify more specific causes, including:
Infections, indicated by a low sodium/potassium ratio and perhaps by a very slow oxidation rate or other low vitality indicators. Infection with candida albicans or other fungal infections is often indicated by copper toxicity or biounavailability in a slow oxidizer.

Toxic metal poisoning, indicated by an elevated hair level of a metal or indicators for a hidden high level of copper, iron, manganese or another metal.

Hypoglycemia, indicated by a low sodium/potassium ratio, an imbalanced calcium/magnesium ratio, low chromium and perhaps other subtle indicators.

**SUICIDAL THOUGHTS**

Suicidal thoughts are in this chapter because they are often a brain processor error and therefore related to Level 1 disorders. The subject needs to be talked about more, as it is a growing and very sad problem today. It is hardly mentioned in the DSM-IV, for example. Many who commit suicide are lovely, bright young men and women who feel awful and are not receiving enough help from the medical and psychiatric professions.

**Causes for suicide.** These can be divided into 1) acute or transient suicidal feelings and 2) chronic or longer-term suicidal thinking patterns. The transient or fleeting suicidal thoughts and suicide attempts are often more successful, and therefore much more dangerous. They are more common among teens and young adults. The chronic type is more common among older adults, and are less likely to actually cause suicide, in most cases. I have listed below the two types of causes, acute and chronic. Each list begins with physical reasons for the problem, followed by emotional, mental and finally what may be called spiritual causes.

**Acute causes of suicidal tendencies include:**

- Physical brain disorders due to drug reactions or effects. Common problematic drugs include all SSRI anti-depressant drugs. According to Julian Whitaker, MD and other researchers, some 28 out of 34 school shooters were on SSRI anti-depressant drugs. Most ended their own lives, as well as those of others. The SSRI anti-depressants cause a detached feeling and an agitation in some cases that make some people think of suicide. These drugs now carry a suicide warning for children and young adults, but continue to be prescribed to thousands more each day. Many have never been tested on teenagers and children. Any drug or toxin could technically cause a severe mental or emotional reaction.

- Biochemical imbalances. These can aggravate any other cause for suicidal thinking, but may be a direct cause as well. Many with suicidal thoughts have a very slow oxidation pattern or a very low sodium/potassium ratio on a hair mineral test. They have very low vitality and become depressed as a result.

- Acute suffering due to pain, for example. This is possible, but not a common cause.

- Emotional unhappiness from any cause. Feeling unloved or uncared for, the death of a loved one, or a relationship breakup are among these common causes.

- Self-hatred or self-loathing. This may occur with anorexia, for example.

- To gain emotional attention. This is an immature reason for suicide, but not uncommon. Teens may want to attract the attention of their parents or friends, for example.

- Mental confusion, brain fog or fixed, negative thoughts.

- Extreme stress with an inability to cope. This can cause a person to just want to give up and escape from life itself. This is common in hard economic times for men, especially, and
among war veterans, in some cases. The cause could be any type of extreme stress when one
does not know how to handle it, such as a divorce, loss of a child or parent, business failure
or other stressor. This could also precipitate a ‘spiritual crisis’ in which a person stops
believing in God or a divine human purpose, and just abandons life itself.

**Chronic or longer-term causes for suicidal tendencies.** These are factors that just wear
people down to a state in which they no longer wish to live. They may include:

- *Physical hardship.* This might be due to starvation, oppression, drudgery, chronic pain or
  fatigue. It might also be due to an inability to walk, talk, see, hear or perhaps an inability to
  feed and care for oneself. It could be due to an inability to think or senility.
- *Chronic illness.* Cancer, and perhaps other diseases such as infections, may secrete chemical
  substances that decrease the will to live. This may cause a person to want to die.
- *Severe, prolonged emotional imbalances.* These might occur in schizophrenic individuals,
  perhaps, who are tortured by hallucinations, strange voices, or disgusting images or feelings.
- *Twisted and fixed ideas such as zealots and martyrs.* These include religious people and
  others who put themselves to death for a cause. They range from suicide bombers to
  Christian and Jewish martyrs. These people believe that dying is better than living, if one
  dies the right way. This common attitude can even infect business people, housewives,
  hospital volunteers, nurses, doctors and others who literally work themselves to death.
- *Cults, especially satanic and other groups.* This is another type of twisted or deluded
  thinking, usually due to a psychopathic leader who delights in death and manages to
  convince his followers of the same.
- *Belief in a better afterlife.* This is a common belief among some religious groups.
- *Old age thinking.* Many people just give up and die when they get to a certain age, or when
  they retire from their job, for example.
- *“Medical disease”.* Often the allopathic medical system quietly indoctrinates people to
  believe they are supposed to age and die as they get older. As a result, they load the older
  people with too many drugs and operations, they poison them with morphine, at times, and
  otherwise hasten the dying process. This is called ‘compassionate medical care’ when it is
  not at all. Real care would be helping these people not to age by keeping them off all drugs
  and helping them detoxify their bodies to retard the aging process.
- *Death-centered philosophies.* This one may upset some people. I believe that some religions
  and political philosophies are death-oriented. This means they do not value individual
  human life much at all, except for what it can do for the group, race or religion. Among them
  are socialism, communism and many authoritarian religious systems. These beliefs often
  lead to devastating wars, suicides and other horrors because they devalue life and elevate
  death for a cause above all things. Surprisingly, even some environmentalists encourage
  abortions, suicides, euthanasia and other means to reduce the population “to save the earth”.
- *A spiritual void.* This means no belief in anything beyond the physical body, such as the soul
  or the spirit. This is a very common belief system today, as it is subtly taught to all the
  children in the public schools in America and Europe, and it is taught by the secular mass
  media. I consider this a major reason for suicidal thinking in young people who just are
  confused and don’t realize what they are doing when they slit their wrists or pick up a gun
  and use it on themselves.
**Nutritional balancing and suicide.** A very slow oxidation rate, especially in a young person, should be a tipoff that suicidal thoughts are possible. Copper imbalance is almost always present. Many of these people just have very low vitality, and are depressed and unhappy as a result. They have been to doctors with no help, mostly because the doctors and psychologists do not realize the connection between body chemistry and one’s thoughts. Nutritional balancing, widely used, could help reduce the scourge of suicide that wastes thousands of precious lives each year. Some report that a nutritional balancing program “lifted a dark cloud from my mind” or “gave me an entirely new feeling about life”.

**OTHER LEVEL ONE MENTAL CONDITIONS, IN SOME CASES**

Parkinson’s disease, lupus, multiple sclerosis and amyotrophic lateral sclerosis are discussed in Chapter 32 with neuromuscular conditions. Epilepsy and brain infections are discussed in Chapter 31 because they are considered neurological diseases rather than mental illness. Their causes are often biochemical as well, and they usually respond very well to nutritional balancing programs.
Rachel, age 32, was severely depressed with suicidal tendencies. In fact, she cried most of the time when she first called me on the phone. Her hair analysis revealed typical patterns of depression. Her oxidation rate was very slow with a calcium level of 241 mg%. This is a calcium shell pattern. It often occurs in sensitive individuals, and in those under a lot of stress or who do not handle stress very well.

High hair calcium also indicated hidden copper toxicity. Copper imbalance is often associated with depression, as well as other emotional difficulties. In this case, the hair copper was very low at 0.9 mg%. Very low copper with slow oxidation is an indicator of hidden and usually biounavailable copper, but only when it occurs in slow oxidizers.

Rachel happened to mention she had a copper intra-uterine device. I suggested this be removed at once, although I probably could have helped her even with the device in place. She also changed her diet and took several supplements based on her mineral analysis. Within six months, Rachel’s depression was completely gone. A retest hair analysis showed a lower hair calcium level, a faster oxidation rate and a more normal copper level of 1.3 mg%.

Case #2. Mark, age 57, is a medical physician who has followed a nutritional balancing program for four years to the extent that he took his supplements. He was not as careful with his diet or lifestyle, and consumed 2-3 mixed drinks and 3-4 glasses of wine every evening after work. Quite suddenly, in the past six months, he quit alcohol and sugar completely. His wife also commented that his anger has diminished. He also lost 100 pounds and looks and feels 10 years younger. Nothing had apparently changed in his stressful lifestyle to cause the shift.

However, on his most recent hair analysis, manganese rose from 0.077 to 0.14 mg%. Iron jumped from 0.8 to 1.2 mg%. While this is still within the normal range, it usually indicates an elimination of biounavailable iron. Iron, aluminum and manganese are often eliminated at the same time. Iron and manganese are associated with rage and anger, which often causes people to drink alcohol and even eat sugars to calm themselves. As Mark eliminated these metals, perhaps this enabled him to relax and be less angry, which helped his drinking problem.

In addition to having a wonderful memory and processor like a modern computer, human beings also have what is called an animal brain. Animals are primarily concerned with survival. They posture or move at all times to maintain themselves in the face of continuous environmental stress and pressures. The purpose of the animal brain is to mediate this and keep the animal ahead of its enemies and its competition for food, shelter and other survival needs.
In human beings, the animal brain is also concerned with survival and stress management. For example, the sympathetic and parasympathetic nervous systems are part of the animal brain. They balance the need for survival with the need for rest and regeneration. Disorders here arise due to mental or biochemical factors that alter the responses of the sympathetic nervous system. This was discussed in Chapter 11. Alterations of the fight-or-flight response often cause Level 2 disorders of mood, impulse and affect. Let us discuss a few of the more common ones.

**DEPRESSION**

**Warning:** Anyone who has a desire to injure or kill oneself or another must see a qualified doctor for help. Do not attempt to solve severe depression problems by yourself. This applies especially to young people. Also, do not stop antidepressant medication without supervision.

Depression is the second most common complaint in doctor’s offices. Most of the time, nutritional balancing improves it dramatically and often completely and permanently. Lifestyle and/or biochemically-related causes for depression include the following:

- **Low adaptive energy.** Dr. Eck found that many cases of depression are due to low energy and adrenal exhaustion. This is a simple explanation for some depression. Having a low energy level day after day is quite depressing. It can make a person just want to withdraw.
- **Depression as a positive way to deal with stress.** Depression feelings can be a coping mechanism to deal with a very low energy level or mental exhaustion. Withdrawing is a way to conserve the little energy the person has to avoid becoming even more dangerously tired. In this regard, Dr. Eck realized that depression can be a beneficial adaptation to the stress of a tired body and/or mind.
- **Lack of a natural “high”.** Our bodies produce chemicals that help us to feel good, and among them are the adrenal hormones cortisol, cortisone and corticosterone. These actually cause a natural high or positive state of mind. Feelings of depression occur in most cases of adrenal depletion or burnout, in part, because the levels of these chemicals decrease. Many other chemicals produced in the brain and in each cell also convey messages of either joy and happiness, or sadness and disease. Feelings of depression arise easily when these hundreds of chemicals are not produced in the perfect balance.
- **Hypoglycemia.** Glucose is one of the most important mind-altering chemicals. Our brains are highly dependent upon a constant supply of it. Lowered cellular sugar, as occurs in hypoglycemia, is a common cause of mood fluctuations, confusion and at times, depression.
- **Deficiency of essential fatty acids.** A faulty balance of the essential fatty acids can be another reason for depression. Most people have too much of the omega-6 fatty acids and low levels of omega-3 fatty acids. This is due to the widespread use of vegetable oils, and feeding livestock on corn instead of allowing them to graze on grass and wild plants, which are higher in the omega-3 fatty acids.
- **Food allergies, toxic metals, nutrient deficiencies and other biochemical imbalances.** Potentially, any number of imbalances can affect the brain in subtle ways that might cause negative feelings. This is why an individualized program for each person is always best.
• **Lack of emotional balance.** Another cause of depression is feeling as if one is on an emotional rollercoaster. Copper imbalance is closely associated with this cause for depression feelings because it tends to exaggerate emotional reactions.

• **Acute stress and loss.** Intense stress, loss of a job or a partner, or grief from any cause will cause temporary feelings of depression in most people. Often there is a need to withdraw in order to regroup and plan one’s next actions in these cases. These episodes should not be treated as a disease unless the person becomes stuck and cannot emerge from the episode.

• **Wanting something you cannot have.** This cause of depression is based on fantasies, delusions or just immaturity. It may remind one of the attitude of small children who just think about themselves and their own wants. They are extremely disappointed when their wants are not satisfied. This is a common cause of depression today. This type of depression is not directly related to body chemistry. However, when a person does not feel well, some people are led to just focus on material pleasures.

• **Engaging in negative thinking.** This is another common cause of depression in America and Europe today. Although most people have plenty to eat, a place to live and other comforts, many people have a strange feeling of malaise or negativity that is fed by the media, in particular. If one entertains false and negative ideas over and over, such as that we are polluting ourselves to death or ‘killing the planet’, when this is not true, it can cause severe depression. Most of those who believe this way are depressed for biochemical reasons.

• **Resisting change.** This is not as common a cause of depression as some of the others, but it does occur, especially in men. Changing one’s life patterns such as an occupation, a divorce or other, can cause intense stress for some people that feels very painful and depressing, even if the change is ultimately positive.

• **Lifestyle imbalances.** Many people become depressed by living in a way that is not compatible with their deepest nature. This may involve relationship, jobs or careers, friends or just holding on to an attitude that is not healthy. Nutritional balancing can help this type of depression by:
  • Raising the adaptive energy level, which makes it far easier to risk making changes.
  • Increasing general awareness of the problem.
  • Removing a calcium shell pattern or other patterns associated with psychological withdrawal, fear of change and other blocks to full expression.
  • Improving perception, cognition, memory and other mental activities to allow change to occur more smoothly and easily.

**School issues with bright children.** Many bright, loving children are not compatible with the extremely outdated, often stupid, authoritarian, “value-free and proud of it” government schools they are forced to attend. The children know at some level they are wasting their precious time, but most have no say in the matter. For the most part, their parents do not understand the issue. This leads to many problems of young people such as falling grades, teen pregnancy, drug and alcohol abuse, dropping out of school, violence and even suicide. Instead of drugging these children, as is often done, they need alternative educational opportunities and they need to be able to speak with adults who themselves understand the outdated and harmful nature of most public schools today.

**Spiritual confusion.** This may occur during spiritual development and can feel like depression. Dr. Carolyn Myss coined the term “spiritual madness” to describe a condition in which a person is confused by new insights, bodily changes, and often a realization that the
world is not as it seems. Anyone who is moving forward with his or her life may encounter this feeling. In fact, if such feelings never arise, most likely change is not occurring at the deepest levels. The antidote for these depression feelings is just to continue resting, meditating and healing the body and mind as much as possible, waiting patiently for the next step or deeper insights to be shown to you.

Other causes for depression. Drugs such as sedatives, beta blockers, birth control pills and patches, copper IUDs and many others can cause depression by damaging the nervous system in various ways. Illnesses such as chronic infections and particularly cancer can contribute to depression. They may even secrete chemicals that alter perception. Most people have chronic infections and most adults probably have some cancer cells in their bodies.

INDIVIDUAL NUTRIENTS AND PATTERNS SEEN WITH DEPRESSION

Knowing how minerals contribute to depression is helpful. Here are common examples:

- **Calcium.** Calcium stabilizes cell membranes and increases the voltage at which nerve cells fire. This has a depressive effect on the central nervous system. For this reason, excessive soft tissue calcium alone can cause depression feelings. Depression feelings are especially likely when the hair calcium level is greater than about 170 mg%, also called a calcium shell pattern. It is associated with psychological withdrawal, usually a very sensitive person, copper toxicity, and, at times, overwhelming stress and/or inability to handle stress well.

- **Copper.** Copper is called the emotional mineral because it tends to accentuate all emotions. One of the most common is depression. This may occur because copper is related to the activity of the thyroid and adrenal glands, and affects biogenic amine synthesis.

- **Sodium and potassium.** Low sodium and potassium are associated with impaired adrenal and thyroid gland activity. This situation is also found commonly with feelings of depression.

- **The oxidation rate and depression.** Slow oxidation and an exhaustion stage of stress are common with feelings of depression. However, fast oxidizers with a low sodium/potassium ratio also become depressed, probably due to difficulty transitioning easily to slow oxidation.

- **Toxic metals.** Excess lead, cadmium, arsenic, nickel and perhaps a few other toxic metals appear capable of causing feelings of depression. Removing them is helpful for many people.

- **Trace element deficiencies.** When the essential trace elements such as zinc, magnesium, chromium and others become deficient, the glands weaken, the oxidation rate slows and toxic metals are absorbed and replace vital minerals in the body’s enzyme binding sites.

- **Vitamin deficiencies.** Deficiencies of B-complex vitamins are associated with mood alterations that may include depression. All the vitamins are needed for brain activity. There is no way to obtain these better than with a diet rich in steamed vegetables and including animal proteins.

ANTIDEPRESSANT MEDICATION

Some twenty-seven million Americans take anti-depressant drugs. However, a recent study indicated these drugs are little if any better than placebos, except for some very severe cases of depression (*PloS Med*. 2008;5(2):e45). The study reviewed all past studies of four popular anti-depressant drugs. These are representative of the newer SSRI class of drugs. This is a very important study you are not likely to hear about on the evening news.
However, use caution when stopping any drugs. Many patients report side effects when stopping anti-depressants. For safety, preferably work with a health professional. I do not recommend stopping drug use without the assistance or advice of the prescribing doctor.

ANXIETY

Anxiety is usually related to biochemical imbalances and is often one of the easiest symptoms to eliminate using nutritional balancing science. Causes for anxiety seen on hair tests include:

- **Fast oxidation**, especially with low levels of calcium and magnesium. Fast oxidizers often are anxious because they are in a fight-or-flight mode most of the time. This increases the irritability or sensitivity of the nervous system.
- **Toxic metals**, especially mercury, copper, cadmium, and perhaps a few others.
- **Hypoglycemia and diabetes**. Low blood sugar causes anxiety in millions of people.
- **Nutrient deficiencies**, especially deficiencies of calcium, magnesium, zinc, essential fatty acids, vitamins A and D, and perhaps others such as choline and inositol.
- **Fatigue**. People who feel they simply cannot cope with their lives are often very anxious.
- **Very high hair sodium and/or potassium**. This is an acute stress pattern.
- **Four lows pattern**. Anxiety may be due to feeling stuck and to low calcium and magnesium.
- **Four highs pattern**. This is an unstable and extreme stress pattern.
- **A very slow oxidation rate**. This can cause anxiety due to 1) bioavailable calcium and magnesium, which causes anxiety because calcium and magnesium are calming, 2) high copper, which may stimulate thyroid activity and biogenic amine production, and 3) very low energy. This causes difficulty coping with stress that can result in anxiety.
- **Occasionally, food reactions or toxic chemicals in the environment**. These can cause severe reactions in the nervous systems of some people.

**Other important causes of anxiety include:**

- **Acute stress for any reason**. This causes a fight-or-flight reaction in the body.
- **Stimulant use**. This should be obvious. However, I am surprised by the number of people who complain of anxiety who drink coffee or sugary, caffeinated or chemicalized beverages and foods. Other stimulants may include worry, anger, fear and anything else that can cause a fight-or-flight reaction in the body.
- **Pain, itching, burning, parasites and other illnesses can cause anxiety, at times.**
- **Chiropractic misalignments and other factors can sometimes contribute to anxiety.**

**Correcting anxiety**. Nutritional balancing can often identify the exact biochemical cause of anxiety and correct it easily and quickly. If the cause is due to a lifestyle problem, nutritional balancing is excellent to control the symptoms until the lifestyle situation can be changed. In my experience, symptomatic approaches such as herbs, symptomatic nutrition or homeopathics are not nearly as powerful or permanent. While most anxiety goes away quickly, in some cases, months or even a few years are needed to reverse deeper biochemical patterns.

**Adjunctive therapies**. The Roy Masters meditation exercise, foot reflexology, practicing deep breathing, inspirational reading, infrared sauna therapy and even coffee enemas or colon
cleansing are often extremely helpful for some cases of anxiety. Also excellent are other natural therapies such as Rolfing, massage and gentle exercise such as walking. Yoga or tai chi can also be very relaxing. However, the teacher must constantly walk around and make sure all postures are done properly. Otherwise, serious injuries occur, at times, especially with yoga.

**BIPOLAR OR MANIC-DEPRESSIVE DISORDER**

This common problem responds extremely well to nutritional balancing science. The manic aspect of bipolar disorder is often due to toxic metals or some other factor that prevents one from relaxing and slowing down. The depressive phase is usually the underlying situation and often due to adrenal weakness and slow oxidation.

Often, the client can be instructed how to alter the nutritional balancing program depending on whether manic or depression feelings are present. This gives the client even more control and perhaps can also speed up the corrective process.

**DISORDERS OF AFFECT**

**Excessive emotional expression.** Hair test patterns associated with high affect include:

- A fast oxidation rate, especially with very low calcium and magnesium levels.
- An elevated sodium/potassium ratio in a few cases.
- A high or hidden high copper level.
- A low zinc level or a hidden zinc deficiency.
- Excessive mercury, cadmium, or less often, other toxic metals.

**Low or flat affect.** Common biochemical causes for this include:

- A low energy level, often due to a very slow oxidation rate or a low sodium/potassium ratio.
- Possibly manganese or copper toxicity, or other schizophrenic indicators.
- A calcium shell pattern or even just a higher than ideal calcium level in some cases.
- Excessive lead, arsenic, aluminum or nickel may cause some dullness or deadness.

**VIOLENCE**

Plenty of evidence supports the idea that nutritional deficiencies, high levels of toxic metals and other chemical imbalances contribute to violence and other types of anti-social behavior. Among the many excellent books on the subject are *Diet, Crime And Delinquency* by Alexander Schauss, *Food & Behavior, a Natural Connection* by Barbara Reed Stitt, *Mental and Elemental Nutrients* by Carl Pfeiffer, MD, PhD, *Nutrition And Your Mind* and *Personality Strength And Psychochemical Energy* by George Watson, PhD, and *Orthomolecular Nutrition* by Abram Hoffer, MD, PhD and Linus Pauling, PhD.

Violence is basically a regression to an animalistic response to the world. Animals habitually respond to all threats and attacks with violence or a threat of violence. This is the best they can do. They do not have higher reasoning faculties with which to process their situation and come up with other alternatives. Human beings, in contrast, should be able to respond to all threats and even attacks primarily with reason, not more violence. Having said this, the use of
reason may include telling a would-be attacker that one will respond violently if attacked. However, this is a reasoned or reasonable response. When a human being responds with violence, first, without consulting his reason, it is a degree of regression to a more primitive or animalistic type of brain response. Many factors can cause this, and among them are fairly simple biochemical imbalances. For example:

- **Low levels of calcium and magnesium.** This can contribute to a hot temper, irritability, and impulsiveness.
- **Fast and slow oxidation.** When the oxidation rate is unbalanced, the mind also becomes unbalanced. Dr. George Watson wrote about this, as has Dr. Eck. Fast oxidation, especially, is a fight-or-flight tendency that can easily turn violent when stress increases past a certain point. Moderate to extreme fast oxidation is associated with aggressiveness, anger, rage, belligerence, mania, a short temper and even paranoia. Slow oxidation is more associated with copper toxicity, which is discussed below.
- **Low zinc.** Zinc is a sedative or anti-anxiety mineral. Zinc is also required for higher thought, emotional stability and rational thinking. When zinc is low, one is much more prone to excessive emotional outbursts and violent tendencies.
- **Copper.** In excess, copper stimulates the production of the biogenic amines such as epinephrine, norepinephrine and dopamine. These are powerful stimulatory neurotransmitters that generally enhance emotional responses and tend to diminish the influence of rational thinking. Dr. Eck said that copper stimulates the activity of the diencephalon, or ‘emotional’ or ‘animal brain’. When this happens, a person becomes far more controlled by his emotions.

  For example, young women are more likely to commit violent acts just before the menstrual period. While this may be due to the action of estrogen or progesterone, copper also rises at this time of the month and may be involved.

  Dr. William Walsh, PhD, formerly a scientist at the Argonne National Laboratories, took hair samples from siblings, one of whom was normal and the other displayed violent behavior. Later he took hair samples from prisoners in the California prison system. He identified two major patterns of anti-social behavior. Those with elevated copper tended toward episodic violent outbursts. Those with low copper, low zinc, and low calcium and magnesium (most likely fast oxidizers) tended to be mean all the time, and sociopathic with no remorse. Most of the criminals also had elevated lead and cadmium levels. Walsh was able to reduce recidivism among violent offenders by correcting their hair mineral balance.

- **Manganese.** Louis Gottschalk, MD, PhD and his colleagues at the University of California, Irvine, studied violent offenders in the California state prison system from 1981-1988. In three separate double blind studies, elevated manganese was the most consistent abnormality in the criminal population, compared to controls.

  Edward Gogek, MD, a board-certified psychiatrist, studied teenage male juvenile delinquents in Arizona. Consistent findings were elevated iron and manganese. Manganese, in particular, is an important brain regulator. Manganese ions can destroy dopamine in the brain. Manganese is also required in many key enzymes in the brain such as kinases, superoxide dismutase, hydolases, decarboxylase and transferases.

  Excess manganese causes a type of schizophrenia. It is commonly associated with dissociative behavior, which may include violence of any kind. Manganese madness is a recognized mental disorder that occurs in manganese miners. It has been studied at the
The world's largest manganese mine is in the northern territories of Australia. Symptoms reported in “Biological studies of manganese on Groote Eylandt” by Florence, Stauber and Fardy, noted aggressive, erratic, compulsive behavior, irritability, a trance-like state and “stupid” crimes such as impulsive acts. This was published in Research on Manganese and Metabolism – Groote Eylandt, Northern Territory by Cawte, J., ed., 1987, pp. 23-35. Interestingly, not all those with high manganese demonstrated the symptoms. This led some of the doctors on the study to believe that only those with poor detoxification systems in the liver or elsewhere may actually demonstrate the symptoms.

Manganese toxicity symptoms also resemble mad cow disease or bovine spongiform encephalitis. According to some researchers, Phosmet, a pesticide sprayed on cow’s spinal column to kill fleas, interferes with manganese utilization in the cows and may cause the symptoms. Many references for manganese are found in Toxic Metal Syndrome by Casdorph and Walker (1995).

- **Manganese and sociopathic behavior.** Manganese toxicity, especially in combination with some excess iron, could cause sociopathic behavior. Manganese toxicity is associated with a non-violent, unemotional or 'poker-face' type of detachment in which a person could look and act perfectly normal, but be committing hidden crimes. While not physically violent, sociopathic acts are certainly a form of more subtle violence.

- **Iron overload.** Iron settles in the amygdala, an area of the brain associated with rage. Excessive iron is an enormous and almost totally ignored cause of violence today. Without a liver biopsy or properly interpreted hair analysis, it can be difficult to identify.

- **Lead toxicity.** This is associated with all kinds of violence, according to the medical research. Lead replaces calcium, one of the primary sedative minerals.

- **Cadmium toxicity.** This is closely related to anti-social behavior. It replaces zinc and other trace elements. In a study of Navy recruits, the higher the hair tissue cadmium, the more behavior problems the recruits had. Cadmium, found in smoke from cigarettes and marijuana, for example, can make a person feel stronger and more in control. However, it is a brittle and fragile control that, if challenged or unbalanced, often leads to violent behavior.

  Cadmium tends to toughen a person. Cadmium types of criminals tend to be “hardened”, as are those with high lead, in most cases. The lack of adequate zinc also makes cadmium types more psychopathic. Sociopaths, by contrast, must be 'softer' so that they can get by easily in public in order to commit their crimes behind the scenes.

  Casdorph and Walker, in Toxic Metal Syndrome, cite the example of James Oliver Hubberty. He killed 21 and wounded 19 others before he was stopped by a police bullet at a crowded McDonald’s restaurant in 1984. A hair analysis showed extremely high levels of cadmium, lead and manganese. He was a welder by trade and sadly, this may have been the reason for his violent acts. The same book gives several other examples of violence committed by welders with high cadmium, lead and other toxic metals. William Walsh also found high cadmium was associated with violent and criminal behavior in his studies of prisoners in California.

- **Hypoglycemia and the “Twinkie defense”**. This legal defense stems from the murder of the mayor of San Francisco. The defense attorney argued successfully that the murderer was hypoglycemic at the time of his act. Therefore he acted irrationally and was somehow not responsible for his crime. While it is a bizarre defense, it is true that a hypoglycemic attack can definitely trigger irrational and violent behavior.
• **Food and chemical allergies.** These imbalances are often subtle. However, *brain allergies*, as they are called, can affect a person in totally unpredictable ways. Doris Rapp, MD, is a pediatric allergist. She has amply documented violent outbursts upon eating a food to which a child is sensitive. She discusses the subject in her books, including *Is This Your Child’s World?*, *Is This Your Child?* and others. These are excellent resources concerning the devastating effects of allergies to foods and chemicals on some children’s behavior.

• **The effects of general nutrition on violence.** A recent study found a 25% reduction in disciplinary offenses among prisoners in Great Britain who were given supplements. (Gesch, CB et al., Influence of supplementary vitamins, minerals and essential fatty acids on the antisocial behavior of young adult prisoners, *Br J Psych* (2002), 181, 22-28). Even more impressive is the work of judge Barbara Reed Stitt in Ohio, USA. She reported an 85% reduction in recidivism among parolees whom she ‘sentenced’ to an improved diet and nutritional supplements. Her work can be found in her book, *Food & Behavior, A Natural Connection*. Another researcher who deserves mention is Alexander Schauss, PhD, author of *Diet, Crime and Delinquency*. Dr. Schauss was a parole officer who became a superb researcher. He ran studies in the Alabama prison system and elsewhere. He, too, found that re-arrest rates decreased among prisoners whose diets were improved inside the prison.

• **Medical and other drugs as causes of violence.** Drug makers were recently required to put a warning label on anti-depressants used for children that states that violence, both homicide and suicide, are side effects of the use of, and withdrawal from, these drugs. The reason is that some SSRI anti-depressants cause both a kind of detachment from reality along with anxiety. This combination can lead to violent acts. Other drugs also unbalance the nervous system in various complex ways, and most deplete vital nutrients as well.

**Domestic violence.** This type of violence has more to do with emotional traumas that are triggered or retrigged in close personal relationships such as family settings. Any of the mineral imbalances above can increase the likelihood of domestic violence by making a person’s brain chemistry less stable, and more volatile. Nutritional balancing may also help to bring up and resolve old emotional wounds and traumas that can trigger domestic violence.

**Preventing violence.** Too many people feel that violence is a hopeless problem. However, studies indicate that much violence is induced by disturbed brain chemistry that can be corrected quite easily in most cases with nutritional balancing programs. For this reason, there is indeed hope for reducing violence in the world. It could be done at once and at a reasonably low cost, in fact. Nutritional balancing used in prisons would also greatly reduce the cost of incarcerating millions, most of whom are nutritionally imbalanced. It would also save many lives that are today wasted sitting in jail cells or other detention facilities.

**Could nutrition make a criminal more dangerous by improving his abilities?** This interesting topic was addressed by George Watson, PhD, in his excellent books. In my limited experience, and that of others, most criminals become better citizens as they balance their body chemistry. They gain mental stability, increase their awareness and are more able to use their higher reasoning and other mental faculties. However, this may not always be the case.

**DRUG USE AND NUTRITIONAL BALANCING**
What is a drug? *Let us define a drug as any substance, behavior or even emotion or thought pattern that slows or stops mental and/or spiritual development.* This definition may seem to all-encompassing, but it is intentional. It is spiritually-oriented, which is in keeping with the holistic and developmental quality of nutritional balancing science. It is also the truth. In a way, it is silly to limit the concept of drug use to a few popular chemical substances and ignore other substances and behaviors that may be just as harmful.

**General effects of drugs.** Most drugs interfere with the higher brain centers that are essential for the development of the subtle human bodies. This is the worst aspect of their use, in terms of mental development, and just one of many important reason to avoid them. In fact, they can shut down these centers entirely, for life. Interestingly, this will make a person feel better in a way, because life becomes simpler, more like the life of a happy dog or cat. These animals relax a lot because they cannot develop much, and so there is little else to do but eat, sleep and run around. This is exactly what happens to some who use drugs, including marijuana, to excess. To a lesser degree, it occurs in those who use sugar, caffeine, who do not rest enough, and those who insist on being victims or living in anger. A related and interesting type of ‘mental drug’ in this regard is too much non-critical reading and thinking, watching too much TV or spending hours surfing the internet. These are common pastimes in the developed nations of planet earth.

**Other effects of drugs.** Most drugs also weaken the body at some level. They often do this by eventually ‘flattening the stress wave’. The stress wave is discussed in Chapter 11. It is the basic response of life to its environment. Those who drug themselves become unable to respond as well. One might say they become much less response-able. This may seem fun, but eventually they become discouraged and often depressed, and it causes them to want to die.

**ADDITION**

The word *addiction*, from the Latin, has to do with an unhealthy attachment to something or perhaps someone. Nutritional balancing can often be of great help to those who wish to overcome addictions. It does this by helping to restore normalcy at many levels of physical and mental functioning.

**The principle of all addictions.** All addictions are *harmful stimuli* that cause a quick pleasurable response. The concept of *stimuli* versus *nourishment* is discussed in Chapter 11. The addictive substance or behavior, by stimulating the body or mind, temporarily balances or even strengthens some aspect of it. However, since it is just a stimulant, the strengthening or pleasure is always temporary. In other words, the high is always followed by a low that leaves the person a little weaker than before the substance was used. This will cause the person to be attracted back to the substance, habit or behavior to re-experience the temporary high or other sensation it offers.

**In cybernetics, all addictions are vicious cycles.** They are dysfunctional *positive feedback loops*. This means they are behaviors or habits that build on themselves, moving a person further and further away from a healthy, balanced lifestyle. If continued for too long, they all eventually lead to disease and death.

**Addictions as self-medication.** An interesting reason for some addictions is to compensate for imbalances in the body chemistry. In other words, addictions can simply be attempts to self-medicate. Dr. Eck realized that people with hypoglycemia are usually attracted to sweets and maybe alcohol. Those with a low sodium and weak adrenals may be attracted to
the cadmium in cigarettes or marijuana. Cadmium tends to raise the sodium level by its toxic effect on the kidneys, and perhaps by other means as well.

Nutritional balancing can help by balancing the body in a healthful way. Then the addictive substance or behavior is no longer needed. For example, if one restores adrenal activity using a better diet, lifestyle and a few nutrient supplements, addictions to sugar, caffeine and other stimulants that boost one’s energy level are less needed and become less attractive.

MECHANISMS OF ADDICTION

Stimulating the adrenal glands. Cortisol, secreted by the adrenals, provides a euphoric ‘high’. If you doubt this, talk with someone using high-dose cortisone. In fact, it is used medically to take away pain. An adrenal high is also due to raising the blood sugar level and decreasing inflammation. Other reasons for an adrenal high can be the effects of adrenalin and noradrenalin on the nervous system. The adrenals may also secrete other pleasurable hormones as well. Anything that strongly affects the adrenals can become addicting. Common ones are exercise, sex, caffeine, listening to loud music, drama of any kind, alcohol, sugar, cocaine and heroin. Emotions such as fear, anger and worry also stimulate the adrenals in a powerful way.

The adrenals are a focal point for addictive substances and behaviors because they are so essential for one’s energy and for feelings of well-being. Almost all those with addictions have weak and unbalanced adrenal glands. If the adrenals were strong and balanced, one would be far less attracted to many addictive substances and behaviors. This helps us understand why addictions to sugar, caffeine, sex, drugs and other substances are so widespread today in the developed world. They are temporary escapes from the ‘downer’ feelings associated with adrenal burnout.

Other ways that chemicals or behaviors are addictive. Some addictions are quite complex. A few of the simpler actions of addictive substances on the body are to:

- **Balance a mineral level or ratio.** For example, Ritalin or Adderall may raise a low sodium/potassium ratio. This may also be why it can be used as an addictive street drug.
- **Protect against or mask the negative effect of a toxic mineral.** For example, Dr. Eck found that the cadmium in cigarettes can reduce the effects of high copper, to some extent.
- **Balance or stabilize blood sugar.** Alcohol and dietary sugars do this for millions each day.
- **Provide a “crutch”.** Cigarettes provide cadmium, for example, that appears to help the emotions, particularly in some women. Of course, this is an illusion in some ways that has severe health consequences.
- **Occasionally supply a nutrient.** Beer, for example, contains B-complex vitamins in the yeast.

**SPECIFIC ADDICTIVE SUBSTANCES AND BEHAVIORS**

**ALCOHOL**

Dr. Eck and many other researchers have taken a keen interest in the relationships between alcohol and body chemistry. Among the important links are:

**Zinc.** A low zinc level is associated with alcoholism for the following reasons:
• Zinc is required for a number of enzymes that detoxify alcohol such as alcohol dehydrogenase and glutamic dehydrogenase. Dr. Davies wrote, “In animals made to consume large amounts of alcohol, the hepatic zinc concentration and hepatic alcohol dehydrogenase are reduced” (from The Clinical Significance Of The Essential Biological Metals by I.J.T. Davies, 1972).

• A reduced ability to detoxify alcohol due to low zinc may even cause more of a ‘high’.

• Emotional instability due to low zinc may be ‘helped’ very temporarily by alcohol.

• Alcoholics tend to eat poorly. This worsens nutritional deficiencies, which, in turn can worsen the addiction to alcohol. This becomes a severe vicious cycle that most alcoholics cannot break free from without a very carefully-designed nutritional program. Low zinc is a major cause of a reduced sense of taste and smell that often contributes to a poor appetite in most alcoholics and even in people who just like having a drink or two for fun.

• Zinc depletion also prevents the normal release of vitamin A from the liver (from Trace Elements In Health And Disease by A.S. Prasad, ed., Vol. 1, p. 27, 1976). Alcoholics are known to be less able to convert carotene to vitamin A. This may be due to zinc deficiency, and it may, in some way, worsen the alcohol problem.

Magnesium. Roger Williams, PhD, author of Nutrition Against Disease and other books, considered magnesium deficiency a cause of alcoholism. He believed magnesium depletion due to alcohol may cause alcoholic brain damage. He wrote that “many alcoholics have been tested and found to be deficient in magnesium”. A connection exists between magnesium deficiency and delirium tremens. The symptoms of both include tremors, disorientation, confusion and hallucinations.

Dehydration. Alcohol dehydrates the body for several reasons. First, people drink alcohol instead of drinking the proper amount of water, since the alcohol looks and feels like water as it goes down. More importantly, however, alcohol can act as a powerful diuretic. Chronic dehydration due to alcohol use is a major factor in the development of other diseases such as diabetes, in some cases, which is also coincidentally associated with zinc deficiency.

Vitamin C and niacin. Vitamin C is required with zinc for alcohol dehydrogenase. Niacin is needed for carbohydrate metabolism, and thus may be helpful for those who crave alcohol, as well.

Fast oxidation. Fast oxidizers often need a pick-me-up when their glycogen levels become low. Chemicals called acetates in alcohol may provide this. They may also crave the sedative effect alcohol can have on their oxidation rate.

Slow oxidation. Those with slow oxidation use alcohol to raise their low blood sugar level and to detach and forget their mental and emotional pain, in many cases.

Iron. People who crave alcohol are frequently angry. This is often found to be related to iron accumulation in the amygdala and elsewhere in the brain. One reason alcoholism may be hard to cure is that iron is not easy to remove from the body. Nutritional balancing is the fastest and by far the safest method I am aware of to remove excess iron. When this occurs, anger often diminishes and a person may notice reduced alcohol cravings (see the case history on page 419).

Alcoholic beverages often contain toxic metals and other toxic chemicals. Lead, arsenic, nickel and cobalt may be found in alcoholic beverages. They may be contained in additives, preservatives or even just as contaminants in some beer, wine and other beverages. They may also contribute to the addictive nature of these beverages in subtle ways.
Alcohol’s worst effects are on the finer brain centers. These include:

- Alcohol shuts down the finer brain centers, at times, for life.
- Teens and younger adults are the ones most affected for life by alcohol damage. This is probably the case because their brains are still growing and developing at this age.
- Casual drinking, such as one or two glasses of wine with dinner, if done long enough, may shut down the finer brain centers for life. Wine is one of the worst alcoholic beverages in this regard, along with hard liquor. Beer is slightly better, though certainly not recommended.
- Children who observe their parents drinking alcohol at all, or using any other drugs, often resent their parents. This occurs because children are developing quickly and are quite sensitive to the use of deadening substances by their parents and others around them. This worsens many family relationships in a subtle but terrible way.

OTHER COMMON ADDICTIVE SUBSTANCES AND BEHAVIORS

Marijuana or cannabis. The low cost and much milder ‘side effects’ of marijuana is unfortunately making this drug extremely popular. It makes a person feel more peaceful because one can no longer think clearly. The peace it brings is the peace of death. It powerfully shuts down the tuning mechanism of the brain. This is critical since the tuning faculty, in part, defines us as human beings. It is also high in cadmium, in part due to the rolling papers used to make cannabis cigarettes. It is also often contaminated with other plant matter that can be deadly. Smoking anything is toxic, whether it is tobacco, cannabis or other substances. The lungs are designed for air, not for smoke. Please do not be misled on this subject.

Food as a drug. Many foods can be quite addicting. Sugar, salt, caffeine and even dairy products and carbohydrates can be quite addictive as they have drug-like effects for many people. Some food addictions may be caused by the odors, textures or other qualities of a food item. Even just the ability of a food to trigger happy memories of childhood, for example, may be enough to cause a food to become addictive for some people. Adding MSG, Aspartame and other chemicals may also cause an addictive quality to a food item.

Exercise addiction. Dr. Eck was among the first to speak about this common addiction. It is an example of a nourishing behavior that becomes more of a stimulant. It is also an almost pure adrenal stimulant type of addiction.

Vigorous exercise, in particular, is a powerful adrenal stimulant that quickly stops feelings of fatigue and depression that are due to slow oxidation and exhausted adrenals. In addition, it is extremely socially acceptable, unlike taking illegal drugs, for example. It can also provide a high due to the buildup of lactic acid in the muscles and blood. Lactic acid is toxic, but can have a temporary euphoric effect. These problems with vigorous exercise are often overlooked by doctors who believe that more exercise is better. It is true that exercise has many benefits such as improved oxygenation and circulation. However, these do not negate the problems with too much exercise.

A nutritional balancing program may help overcome addictions because it can:
• **Improve vitality.** This will tend to reduce all tendencies for addiction because a person will feel strong and happy without a need for the crutches and blindfolds that addictions provide.

• **Balance the oxidation rate.** This helps restore the proper tone and balance to the autonomic nervous system, which is very stabilizing for a person. It also clears up many health problems that can lead to addictions such as fatigue, depression, anxiety and others.

• **Support the adrenal glands.** Nourishing and resting the adrenal glands can provide some of the same euphoric feelings in a mild form as certain addictive substances. Rebuilding the adrenals may also help strengthen the will, which is needed to overcome any harmful habits.

• **Restore nutrient minerals and reduce the burden of toxic minerals, toxic chemicals and infections.** This enables the body to function much better without the need for crutches.

The **hardening effect of most drugs and toxic metals, as well.** A very critical effect of most drugs and toxic metals is to stiffen or harden the body and often the personality. This is a subtle effect in most cases, as the body may not feel any harder. However, it becomes a little more tense, more dense, and more rigid and stiff. One may only notice this as one detoxifies and heals using a complete nutritional balancing program. One’s back muscles, in particular, begin to soften, and so do one’s attitudes, at times.

This is the difference between a newborn baby who is quite flexible and relaxed, and a sickly older person. In the latter, the tissues, especially the muscles and ligaments, and often one’s attitudes and thinking, as well, have become far more rigid and hardened. In part, this is due to an accumulation of toxic substances in the body. In part, this is also due to adhesions and processes such as glycation, in which tissue layers such as the fascia actually begin to grow together or at least adhere to one another. Deep healing involves reversing this process.

The need for a **long-term view of life.** Addictive substances and habits always promise quick pleasure. This is one of their main attractions. Healing the body, in contrast, involves delaying some gratification. For this reason, overcoming addiction requires approaching life with a long-term view. This is an important aspect of human maturity. Some understand this intuitively, while others have more trouble because they cannot think ahead very well. They want their momentary pleasure, at least until it stops working. Teaching the young to take a long-term view is a primary job for parents, teachers, doctors, leaders and counselors of all types. Learning a long-term view is also critical for success in most other areas of life.

**GRIEF AS A LEVEL TWO DISORDER**

Grief is a primitive emotional feeling that most everyone feels at times. It is a feeling of loss. Even animals go through it when one of their group members dies or is injured. This is why it is classed as a level two disorder. Grief tends to slow the oxidation rate and greatly slows progress in healing. Grief is almost like a preparation for death.

If one is aware of grief, it is best to help oneself feel the sadness fully. Allow the feelings to well up inside using any means you have such as watching a tragic movie or television show, or even writing a sad story or journaling your sadness. Be sure, however, to throw this away as soon as you have fully felt the grief, as it is not something to hold onto afterwards. Too many people believe in sadness, when this is not supposed to be the human condition. Just feel the feelings and move on.
39.
LEVEL THREE – TUNING DISORDERS SUCH AS NARCISSISM, PSYCHISM, OBSESSIVE-COMPULSIVE DISORDER, MULTIPLE PERSONALITY DISORDER, BORDERLINE PERSONALITY, PSYCHOPATHOLOGY, SCHIZOPHRENIAS AND ESCAPE PATTERNS

When I met Sarah, age 18, she was residing at the Camelback Mental Hospital in Scottsdale, Arizona. She was told she would never leave due to acute schizophrenia and strong suicidal tendencies. Thorazine and other therapies had not stopped her almost constant hallucinations. She had attempted to take her life twice since she had been admitted to the hospital. Sarah’s hair copper level was 41 mg%. This is at least 15 times the ideal level. Printed on the lab report was a warning that a copper level this high is associated with psychosis.

Sarah, her psychiatrist and the cook at the hospital agreed to help her follow a fairly simple nutritional balancing program. Within six months on the program, she had improved so much she was taken off her medication, released from the hospital and discharged from all psychiatric care. She re-entered high school nine months after starting her nutrition program, though doctors had told her mother this would never happen. She only stayed on a nutritional balancing program about one and half years. Several years later, Sarah called me for some facts for a report she was writing in college, at which time she was doing fine.

Not all schizophrenias respond this well. In this case, biochemical factors were primary. In some cases, the response is slower or less complete because other issues connected with the illness must be dealt with. Even in these cases, however, a nutritional balancing program is quite simple, harmless, inexpensive and may be amazingly effective, as this case proves.

The human brain, in addition to its memory and processing capabilities and its animal or emotional brain, is able to tune itself. The idea of tuning may seem unusual. However, people often say they can “tune in”, for instance, to what another person really needs or wants.

A very rough analogy is the wireless capability of modern computers. They can acquire information from many sources such as satellites, routers or other computers. They can also send information to other computers. This capability is built into the human frame. Animals share it only minimally. They use other senses to tune into their environment. Humans have a unique sense, however, that may be called the tuning faculty.

TUNING DISORDERS

Problems with the human tuning faculty include 1) problems with the tuning mechanism
itself and 2) problems processing or integrating the signals that are received. Problems with the tuning mechanism are somewhat similar to those of a radio receiver, and include:

- A weak signal, a fluctuating signal or even no signal at all, at times.
- Static on the signal, or drift, where the signal changes over time.
- A stuck receiver that can only tune to one or two stations.
- Inaccurate tuning where one thinks one tunes to a channel but it is another channel.
- Too much volume or other distortions of the signal.
- Overlapping signals causing distortion and false messages.

These are engineering descriptions of many Level 3 mental health disorders. Problems processing and integrating the information that one receives include:

- Lack of interest in the information received.
- Fixating on the information, which tends to unbalance a person’s life.
- General lack of discernment and unwillingness to check information with other sources.
- Mixing the information with one’s ego attachments, hidden agendas and desires. For example, if one believes in vegetarian diets, one might only be willing to listen to information that recommends vegetarian diets.
- Old traumas can prevent true listening and hearing of received information.
- Harmful emotional reactions to the material such as fright, or perhaps impulsive actions.

TYPES OF TUNING DISORDERS

Imbalances in the tuning mechanism make for some very interesting mental imbalances:

- Tuning excessively into a lower part of the self or body. This gives rise to egotism or narcissism, introversion, psychopathology, sociopathology, and obsessive-compulsive disorder.
- Tuning excessively into the self or body at other levels. The person is tuned to a part of the self that is not appropriate for the situation. For example, a person who is always focused on the heart center of the body may be very open and loving to the wrong people.
- Tuning into parts of the self and the mind, but unable to integrate these into a unified whole. This gives rise to multiple personality disorders, dissociative disorders and perhaps borderline personality disorders.
- Tuning into others in unhealthy ways. This may give rise to ‘social butterflies’, paranoia, energy vampires, dependency, co-dependency, and perhaps others such as avoidant or oppositional defiant disorders.
- Tuning into other realms. This gives rise to schizophrenia, mediumship, psychism and channeling. Schizophrenia involves uncontrolled hallucinations or hearing strange voices. Psychism, mediumship and channeling are not disorders, though they can certainly go awry if one cannot integrate the information properly. Everyone actually tunes into these levels. However, children are taught at a young age to ignore most of the information they receive from this level. The various levels that are possible include:
  1) Discarnates. These are souls without bodies who float around and may speak to living beings, though it is usually mischeivous and possibly dangerous. Psychics and mediums can
tune into this level. They may share valuable information with others, but it may not be valid.

2) **Elementals**, also called elves and fairies. These are realms of beings that cohabit the earth with us. Many books have been written about them. A delightful movie and true story about them is entitled *Fairytales*, about two English girls who were able to see and even photograph elves and fairies.

3) **Spirit guides and gurus.** These are supposedly more developed human beings who may claim to live on earth or elsewhere. They seem to offer assistance to earth humans. For example, Edgar Cayce was a famous psychic healer who went into a trance and spoke about healing and many other things.

4) **Angelic and other realms.** There are beings from still other dimensions who claim to speak through a person on earth. Doreen Virtue and other authors write about them.

**THE CHAKRA SYSTEM AND TUNING DISORDERS**

The tuning disorders can be related to various energy centers or chakras of the body:

- **First center or chakra** – Tuning here excessively causes self-absorption, egoism, narcissism, an unhealthy introversion and, at times, psychopathic and sociopathic behavior. Cult behavior also arises from over-tuning in this area. Cults may be understood as carryovers from the animal kingdom. They are like prides of lions, for example, that are ruled by a dominant male, in most cases, who reproduces with the females for the protection of the entire pride. Human cults include many types of groups, not just the ones we hear about on television.
- **Second Chakra** – Tuning too much here causes a person to focus on the opposite sex for purely sexual reasons. Many energy vampires operate at this level, both men and women.
- **Third Chakra** – Tuning excessively here causes one to be preoccupied with control and manipulation of self and others through words, ideas and beliefs. Politicians and parents often focus here to control their subjects and their children through manipulation. Sociopaths may focus here too much. They are often white collar criminals who run banks or hedge funds, or work as bureaucrats for the government. They seem like nice people, but underneath are corrupt, dishonest and power-hungry.
- **Fourth chakra** – Tuning here too much is associated with extroverts or social butterflies who tune into others, but usually at superficial levels such as the cocktail scene or bar scene.
- **Fifth chakra** – Tuning here too much causes excessive ambition for worldly success.
- **Sixth chakra** – Excessive tuning here can cause hallucinations, delusions, hearing voices and seeing apparitions or ghosts. Schizophrenias often have their roots here.
- **Seventh chakra** – Tuning here in an unbalanced way is associated with odd religions and spiritual cults that mix high ideals with satanic or dark energies.

**HAIR ANALYSIS PATTERNS AND TUNING DISORDERS**

Although many hair analysis patterns may occur with tuning disorders, common ones are:

- **Zinc deficiency and copper toxicity.** These are very important for schizophrenias.
- **Manganese toxicity.** This is associated with a type of schizophrenia that can turn violent.
• Cadmium, lead, arsenic, mercury and other toxic metals. These can hold a person’s tuning mechanism in the lower chakras, which may be why these metals are associated with violence, psychopathic and sociopathic behaviors.
• Lowered vitality. This opens the body to most physical and mental disorders.
• Fast oxidation with a low sodium/potassium ratio. These people are often more tuned to the ego level, with all the possible disorders that one encounters here.
• Sympathetic dominance. These people may still tune into the ego self too much, although the body has moved into slow oxidation, which is more introverted and a more spiritual aspect.
• Four highs. These people tune into others too much, in most cases. They need to relax, slow down, stop worrying and tune into themselves at higher chakra levels to heal.
• Four lows. These people are often out of control, in terms of the tuning mechanism. This is like a radio that cannot be tuned well. Nutritional balancing is like restarting or rebooting their computer to ‘restore all the settings’ so that everything works properly.
• A bowl pattern. These people feel very stuck, often because they are tuning into older, lower levels that no longer serve them. They need to know they have options. Often, biochemical factors hold them back. In this case, they do well following a nutritional balancing program.
• A hill pattern. This pattern might indicate that a person has managed to tune better, or tuned into a higher level that brings comfort, insights and new possibilities.
• Future research may reveal other patterns that are important for tuning disorders.

**Brain architecture.** The tuning faculty is also highly dependent on the architecture or shape and contortions of the brain matter itself. This is not well understood by modern medical science, but I think it will be in the future. Just as a poorly-shaped antenna can affect some radio reception, it appears that faulty brain architecture, such as cranial bone displacement, may contribute or even cause Level Three disorders. Such problems are common and may be due to birth trauma, accidents, brain infections, tumors, impaired posture and perhaps other causes.

### Chart Of The Tuning Disorders

<table>
<thead>
<tr>
<th>Condition or disorder</th>
<th>Improper Tuning Level</th>
<th>Hair Test Patterns</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Egotism and narcissism</strong> – self-centered and often unaware and uninterested in others</td>
<td>First and possibly second or third</td>
<td>Any, but more so fast oxidizers</td>
</tr>
<tr>
<td><strong>Psychopathology</strong> – uncaring and often violent acts against innocent people with little remorse or concern at all</td>
<td>First, usually, but possibly the second or third</td>
<td>Often lead, cadmium and other toxic metals, though they may be hidden at first</td>
</tr>
<tr>
<td><strong>Cults of many kinds</strong> – blind and, at times, slavish following of leaders needed for protection and safety in people’s minds</td>
<td>First, second and usually third only, though others are possible as well</td>
<td>Slow oxidation, perhaps with low vitality, although the leader is always a vampire fast oxidizer</td>
</tr>
<tr>
<td><strong>Vampirism and identity exchange</strong> – ability to steal energy from others and actually steal a piece of another’s soul</td>
<td>First, second and third, primarily</td>
<td>Possibly a fast oxidizer, possibly very high hidden iron, but all patterns possible</td>
</tr>
<tr>
<td><strong>Sociopathology</strong> – perhaps violent and callous acts, but hidden behind a façade of good manners and an acceptable appearance</td>
<td>First, and often the third more than second or others</td>
<td>Any pattern. Often copper, iron and manganese toxicity are involved. May be a vampire fast oxidizer</td>
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<tr>
<td><strong>Obsessive-compulsive disorder</strong> – an excessive focus on self, at times, and repetitive behaviors, often in order to feel safe and secure in some way</td>
<td>Any level up to the sixth, but with no perspective</td>
<td>Usually a slow oxidizer, perhaps with sympathetic dominance pattern</td>
</tr>
<tr>
<td><strong>Multiple personality disorder</strong> – parts of the personality are not integrated so one thinks one has several personalities, at times, and one often speaks with one or another part in sequence</td>
<td>Inability to integrate the two hemispheres of the brain or different brain areas</td>
<td>Copper toxicity is often prominent, as with schizophrenias</td>
</tr>
<tr>
<td><strong>Schizophrenias</strong> – delusions, distorted behaviors, hearing voices, affective flattening, hallucinations, and possibly poverty of speech</td>
<td>Fifth and sixth, specifically</td>
<td>Copper and mercury toxicity, low vitality, always a slow oxidizer in my experience</td>
</tr>
<tr>
<td><strong>Paranoid</strong> – undue suspicion of others for no good reason, fearful attitude about life</td>
<td>Any lower tuning levels in a fearful manner</td>
<td>Fast or slow oxidation, a low sodium/potassium ratio, a calcium shell and often high mercury and/or copper</td>
</tr>
<tr>
<td><strong>Borderline</strong> – this is an unstable personality trait</td>
<td>Any level up to the sixth, but in an improper way</td>
<td>Four highs, four lows, a mixed oxidizer or others, always with mercury or other toxic metals</td>
</tr>
<tr>
<td><strong>Psychics or mediums</strong> – not a disorder, but an ability to channel or communicate with other realms. However, often not properly understood or controlled</td>
<td>Many levels possible</td>
<td>Almost always a slow oxidizer with higher copper and perhaps other toxic metals</td>
</tr>
<tr>
<td><strong>Channeling</strong> – not a disorder, although often information is distorted by the ego mind, ill health and/or impure communication</td>
<td>Any level possible</td>
<td>Almost all are slow oxidizers with high copper. Mercury toxicity is also very common</td>
</tr>
</tbody>
</table>

**ESCAPISM PATTERNS ON HAIR MINERAL ANALYSES**

This topic is included in this chapter because escaping from reality is a tuning disorder. Most adults realize that their lives are finite and will end sooner or later. This short section is designed to illustrate how a hair mineral analysis may reveal how a person is attempting to avoid death on the physical plane of existence. The two ways people do this in their lives are:

- **Ignoring or just denying death.** This is the most common method and involves distracting oneself with constant activity, be it work, family, friendships, travel, collecting things, fixing up the house and hundreds of other ways people fill their days and often nights, too.
- **Defying death.** This usually involves risky or scary activities such as sky-diving, hang gliding, skiing, bungee-jumping, dangerous sexual behavior, drug use or others.
Hair test patterns related to these ways to cope with the physical decay of the body are:

**Escape Into The Ego.**

**Fast oxidation.** This pattern, especially if extreme and when it persists in an adult, is associated with running away into the immature or ego self. As a result, these people are often more self-absorbed and out of touch with others’ real needs. They prefer to live in their own world, often quite carefree. They may claim to feel deeply for others, and this may be true, but it is in a strange and self-centered way. For them, caring for others may mean they must micro-manage others, usually for their own benefit and pleasure. Fast oxidation is very hard on the body. It tends to cause early death unless a person can replenish his energy. The only way to do this as a fast oxidizer is usually by becoming an energy vampire.

**Energy vampires.** Some attempt to run from old age and death by stealing energy from others. They usually do this by upsetting others or flattering them, which also upsets them. Parents are sadly the worst offenders, and children make the easiest victims, as they are the most innocent and least in control of their lives. This is one reason that some men, and even more women, like to have children. However, vampires are found in every area of life and every sphere of human activity.

**Identity exchange.** This topic is closely related to vampirism. When someone steals energy from another, not only does the victim lose energy, but he or she also gets some of the identity of the vampire in return. The vampire also gets a little of the victim’s identity. This is one of the main reasons for vampirism. The vampire wants the innocence of the child or the feminine sweetness of the daughter or wife. The victim may, in fact, want some of the hidden toughness of the sweet-sounding mother or perhaps the bullying strength of a male vampire.

An identity exchange occurs that is somewhat bizarre, but very real. The vampire softens a little, perhaps, and the victim becomes somewhat hardened in the exchange, in most cases. Our world is populated by people carrying pieces of other people’s identities, while their own is often scattered far and wide among a dozen others. This topic is a little esoteric, but can be important for health and healing. It is the basis for a shamanic therapy called soul retrieval, which is discussed in more detail in Chapter 45. More information about vampirism and identity exchange are available at www.drlwilson.com and www.fhu.com.

**Escape from the ego and from others.**

**Very slow oxidation, especially with a calcium shell.** These individuals escape by building a wall around themselves. They also live in their own world, but it is of a different nature than the egotist’s world. This is a more spiritual pattern because the person has often realized at some level that the ego is not the answer. This causes one to search more deeply.

The dangers of this pattern are that one may become depressed, despairing, and finally decide to escape through suicide, the ultimate rejection of the ego or physical self. As long as this does not occur, slow oxidation is the perfect place to slow down, think deeply about life, and perhaps emerge on the other side of the rat race against death by acknowledging that life is not about physical existence, except peripherally.

**Sympathetic dominance.** This is a combination of the two methods above. The pattern occurs in slow oxidizers. However, the person often tries to continue with some fast oxidizer habits of gratifying the ego. The danger here is that this escape wears down an already tired body even faster. If the pattern doesn’t change, it usually leads to an early death.
Copper. Copper aids one’s escape in interesting ways that include:

- **Yeast and other fungal infections.** These organisms secrete alcohol in most cases, making the person slightly inebriated most of the time. This can cause brain fog, a very common complaint among those with excess and/or biounavailable copper.
- **Enhanced emotions and often an emotional and sentimental rollercoaster.**
- **A rich fantasy world.** Copper tunes people to different dimensions and can provide amazing abilities and gifts in music, art, teaching, writing, theater, psychic phenomena and many other areas of life. While this is wonderful in some cases, it often distracts people for a lifetime from more basic and more grounded aspects of life.
- **Schizoid thinking, detachment or spaciness.**
- **If copper becomes high enough, one may experience schizophrenia or other psychoses.**

Escaping through very high copper is a risky experiment. It often leads to physical illnesses, including even cancer. It also causes unrealistic expectations and poor judgment, leading to poor decisions and disappointments. If it becomes too high, it can cause panic attacks or even a full-blown psychotic breakdown.

**Four lows pattern.** One is caught or stuck and escaping by pretending to run and hide.

**Manganese.** Manganese causes a mild form of detachment or schizophrenia, but with little affect and some personality rigidity. It does not have the softness, gentleness and humanity associated with copper. Dangers with manganese are that it can cause physical ailments as it accumulates in the brain and elsewhere, and causes violence in rare cases.

**Iron.** This deposits in the amygdala, where it may cause rage, anger and other, usually milder forms of violence and anti-social behavior. Anger and rage are common escapes from reality for millions of people worldwide. Problems with accumulating iron are that it is extremely inflammatory and a powerful oxidizing agent. Too much iron contributes to all the diseases of civilization such as cancer, heart disease, diabetes, arthritis and others.

**Other toxic metals.** Slow oxidizers, in particular, accumulate various toxic metals. These derange one’s thinking, often in unusual ways, and can be used to help one escape from reality. For example, mercury accumulation causes a certain odd or quirky quality of the personality. Cadmium and lead are associated with ‘macho’ attitudes toward death. Aluminum is associated with a foggy memory and dementia, a common escape for older people today, and even some younger ones.

These patterns of escape are a rather advanced way to look at hair analysis. However, they are valid, as any practitioner will find who studies and reads enough spiritual material about how people try to escape from their worries, fears and other problems.

**TRAUMA AND LEVEL THREE DISORDERS**

**Rape and nutritional balancing science.** Rape is a combination trauma that affects many levels of brain activity, and the body structure, body chemistry, and one’s nutritional state. The nutritional effects are mainly the result of *a loss of vital sexual fluids*, although all traumas also deplete zinc, calcium, magnesium and many other nutrients. Rape also can cause sexual fluid craving, a common condition among women and some men, that is correctable with a nutritional balancing program. It is discussed in a separate article entitled *Sexual Fluid Craving* at www.drlwilson.com.
Nutritional balancing is extremely helpful for those who have experienced rape. It can help to: 1) replenish nutrients after sexual fluid loss, 2) restore the back and spine to health, 3) reverse some of the trauma, shame and other effects of rape, 4) improve thinking, 5) restore one’s energy level, and 6) amazingly, stop and often reverse the progress of most sexually transmitted diseases that occur as a result of rape.

In my view, rape is a very violent crime that does not receive nearly the attention it deserves. Most rapes are never reported, as it is an embarrassing event, and one that can be hard to prove and prosecute. If prosecution occurs, the punishment is so light in most nations that the criminals are soon free to strike again. In biblical times, rape was punishable by stoning to death. When one studies rape enough, one realizes that it deserves much more attention and much more extreme punishment because of the damage it can cause. As this is large subject, it is discussed in two articles at www.drlwilson.com, Rape and Healing Rape.

**Brainwashing, Hypnosis and Psychotronics.** These can cause Level 3-related traumas because they affect the tuning mechanism of the brain. They are all very interesting in the way they can change a person’s perception, cognition and behavior in a relatively short time, often with no obvious signs or symptoms of brain damage. In a general sense, what occurs is a shift in the tuning mechanism of the brain. This changes the way a person sees himself and the world around him. These complex subjects are discussed in three articles: Brainwashing, Hypnosis, and Psychotronics available at www.drlwilson.com.

**FIXING THE TUNING MECHANISM**

Rarealy, repairing the tuning mechanism of the body is easy, such as simply lowering the level of copper in the body. This works well with some schizophrenics, for example. In most cases, however, it is much more involved, requiring repair and balancing of the entire body chemistry. This is definitely the case with autism and, psychopathology and other conditions.

**An analogy.** The process is somewhat akin to fixing a complex radio or television receiver. First, one must replace all broken or improper parts. This is similar to renourishing the body and removing toxic metals. In the brain, the metals are often lodged deeply and are ‘layered’. More superficial toxins must be released first, before one can even reach the deeper toxins that may be causing the problem. Other brain toxins include thousands of toxic chemicals, and perhaps biological toxins such as brain parasites, bacteria, fungi and viruses.

As the parts are replaced, the machine must continually be recalibrated, or retuned so it functions well. This is done in the body by rebalancing the oxidation rate and major ratios often. Balancing is also required or at least helpful in every area of life including the diet, lifestyle, rest and sleep, and particularly balanced thinking. For this, a large amount of proper learning and study are helpful so that a person can maintain a healthy skepticism and perspective. Otherwise, traumas that most people carry will influence one’s thinking and cloud one’s judgment. The use of the infrared sauna, coffee enemas, a grounding type of meditation and regular gentle exercise helps keep a person centered and grounded throughout the repair process.

**Physical therapies.** Most people also require chiropractic manipulation, and perhaps other therapies such as cranio-sacral therapy, Rolfing, structural integration or other bodywork. This is to help loosen the body structure, and release tensions and stress on the spine and cranium that can knock out the body’s ‘antenna’ mechanism needed for proper tuning of the brain. For more on this, see the article entitled Loosening The Body Structure at www.drlwilson.com.
Robert, age 16, resided at the Arizona Boys Ranch, a home for teenagers with serious behavior problems. His probation officer told me, “Robert has a bad attitude”. He had been expelled from several high schools. He looked pudgy and overweight when I first saw him. He told me, "My brain doesn't work very well". Robert's hair test revealed extremely high levels of lead (0.6 mg%), mercury (0.11 mg%), cadmium (0.11 mg%) and aluminum (4.4 mg%). Other high metal levels included nickel (0.1 mg%), iron (2.8 mg%) and manganese (0.09 mg%). All these can affect memory, cognition and other mental functions. Robert was given a supplement program and instructions regarding his diet. When he returned three months later for a follow up visit he had lost 20 pounds, although I did not restrict his food intake. He had a healthy glow about him. His driver said his attitude had "turned around" and he reported feeling stronger and better able to cope. In my office, he told me, "My brain is working now".

Interestingly, Robert's retest hair analysis revealed even higher levels of iron (4.9 mg%), lead (0.7 mg%), nickel (0.2 mg%) and manganese (0.16 mg%). These higher levels indicated these metals were being eliminated through the hair during the past three months. As iron and manganese are eliminated due to a nutritional balancing program, people often report a lessening of anger and a greater awareness about it as well.

Delinquency, drugs, promiscuity, suicide, and other teenage problems are often due, at least in part, to exhausted, toxic bodies, even at this young age. Many people with behavioral problems are incredibly relieved to know their problem is due to nutritional imbalances and toxic metals, and they are not just crazy or ‘messed up’. An inexpensive hair mineral analysis can often reveal the specific imbalances, as well as guide their correction.

**Case #2.** Henry, age 5, had many food allergies, eczema, asthma, chronic intestinal bloating and many hypoglycemic symptoms. Most disturbing to his mother, he exhibited disruptive, disagreeable and angry behavior.
On a nutritional balancing program he has calmed down and is less moody. His disposition is sweeter and his food allergies have decreased in severity over a period of about nine months. His first three hair tests revealed a clear pattern involving the ‘three amigos’:

- Iron increased from 1.4 mg% to 2.7 mg%, and then it decreased to 1.1 mg%.
- Manganese followed a similar pattern. At first it was at 0.019 mg%. It rose to 0.057 mg% and on the second retest was down to 0.018 mg%.
- Aluminum followed the same pattern, moving from 1.17 mg% on the first hair test up to 2.71 mg%, and then down to 0.83 mg% on the most recent test.

This is a clear example of how the ‘three amigos’ or ‘friends’ may move up and down in the same direction, though it does not always happen so clearly. In a young child, there is less time for other factors to have influenced the mineral balance, so it is perhaps easier to see the pattern.

Also, Henry’s oxidation rate has also moved in accordance with the ‘amigos’. On the first test, the rate was mildly fast. On the second test, it was extremely fast with a lower sodium/potassium ratio. On the third test, it returned to a milder fast pattern. Another interesting fact was that Henry’s hair zinc level went from 12, to 6 and then down to 5 mg% on the most recent test. Such levels are quite low, in spite of zinc supplementation and a diet with a lot of meat. His mother reported that all Henry wants to eat is meat. Most likely, zinc is being retained inside the body, replacing iron, manganese, aluminum, cadmium and other toxic elements that are being removed. Usually in these cases, the zinc will return to a good level once the major enzyme binding sites have been replenished with zinc.

Breakthrough and combination disorders. This chapter discusses an important group of conditions that involve combinations of the three levels of brain functioning described in the past three chapters. To review briefly, these levels of functioning are:

1. A mechanical ‘computer hardware’ level involving mainly memory and processor capability.
2. An ‘animal brain’ level, involved with stress, adaptation, survival, mood and affect.
3. A ‘tuning’ faculty of the brain, which is like a radio receiver and transmitter.

I have divided the combination disorders into two groups. The first are called breakthrough disorders, while the second are more complex combinations of imbalances.

BREAKTHROUGH DISORDERS

The concept of a breakthrough disorder is simple. A lower or cruder level of functioning ‘breaks through’ or intrudes upon a higher or finer level of brain activity, causing severe stress and panic reactions. They are usually acute, and only rarely more chronic. In some of them:

- Subconscious fears or traumas suddenly break through to the conscious mind. Common examples are PTSD and phobias of all sorts. Violent behavior may also be classed as a type of breakthrough phenomenon in which raw emotion wells up and overwhelms a person.
A physical imbalance such as low blood sugar or perhaps metal poisoning can suddenly affect the nervous system, causing mental and emotional symptoms. The most common of these are hypoglycemic attacks and some panic attacks caused by copper or other toxic metals somewhere in the body. Seizures due to a fever, infection or another cause might also be considered such a disorder. However, the effects of seizures are mainly physical, rather than psychological, so they are not addressed in this chapter.

**Symptoms.** All of the acute breakthrough disorders are basically panic episodes. They usually build up in less than 10 minutes. According to the DSM-IV, one must also experience at least four of the following symptoms: palpitations, a pounding heart or tachycardia, sweating, trembling or shaking, shortness of breath, feeling smothered, a feeling of choking, chest pain or discomfort, nausea, abdominal distress, feeling dizzy, unsteadiness, lightheadedness, feeling faint, derealization or feelings of unreality, depersonalization or feeling detached from oneself, fear of losing control or going crazy, fear of dying, tingling or numbness, chills and hot flushes.

Notice that a few of these symptoms are associated with a fight-or-flight reaction. In fact, panic disorders are a type of incomplete fight-or-flight reaction. They are confusing for the body because there is really no tangible threat, as with other alarm reactions. Instead, the trigger is from inside the body or mind itself. The alarm response in these situations is incomplete and the person ‘floats’ and is caught in this partial response to stress. Let us discuss some of the most important kinds of breakthrough or panic disorders.

**PANIC OR ANXIETY ATTACKS**

Most panic attacks are due to a vicious cycle in which a slight upset or anxiety feeling causes a fight-or-flight reaction. This, in turn causes more anxiety, which further aggravates the fight-or-flight reaction, and so on. Unless stopped quickly, this escalates in a few seconds to a few minutes into a full-blown anxiety attack.

At times, there is no obvious trigger for an attack. These are the most disconcerting and can cause a person to live in terrible fear, not knowing when the next attack will arrive. In most cases, the trigger for the attack is either a physical factor such as fatigue, hunger or thirst, or it may be a loud noise, a particular situation, an argument in a relationship, or something else.

**Correction.** Anything that stops the ‘spreading’ or vicious cycle of a stress reaction will stop a panic attack, though it may not prevent future episodes. Symptomatic methods include simple nutritional supplements of calcium, magnesium and zinc. These often work beautifully.

Other remedies include slow, deep breathing, relaxing in some other way, drinking a glass of warm milk, perhaps, to increase calcium in the blood, or eating something sweet to temporarily increase the blood sugar if low blood sugar is the cause. Of course, if low blood sugar is not the cause, sugar can make the problem worse. Tapping techniques such as EFT and others may also be very helpful for some panic attacks. Preventing future attacks and getting rid of nutritional and biochemical triggers at deep levels, however, requires balancing and stabilizing the entire body chemistry with a nutritional balancing program.

**POST TRAUMATIC STRESS DISORDER OR PTSD**

A painful memory that suddenly breaks through to consciousness at random times can
cause severe feelings of panic that cripple a person’s normal functioning. Fear of the episodes, along with often feelings of guilt, anger or other negative emotions complicate the disorder. Previously called *battle fatigue* or *shell shock*, PTSD often has its origin in repeated stressful episodes, such as those that occur on the battlefield. Each causes a powerful fight-or-flight reaction that is also recorded in a person’s memory. When the memory is triggered for any reason at all, the fight-or-flight response is also triggered, causing panic feelings. Fear and other emotions about the incident can cause the panic episode to escalate quickly.

Nutritional balancing can help to make the nervous system more stable. This can reduce the severity and frequency of attacks. Also, improving a person’s vitality can perhaps help one to process and release the original trauma more easily, at times with very little effort or discomfort. Other therapies such as cognitive and relaxation therapies may be helpful, as well. However, if the body chemistry is too unbalanced or the vitality level is too low, other therapies will tend to be less effective.

**PHOBIAS**

The word *phobia* means fears and/or aversions. In this group of disorders, the trigger for a panic episode is a specific exposure to something that reminds a person of an earlier trauma. For example, if one was bitten by a dog at a young age, each time one hears a dog barking it might trigger a memory of the original trauma and this triggers the panic episode.

Phobias are sometimes able to be handled easily with psychological and energetic methods such as emotional freedom technique or EFT. These simply “disconnect” the old fear from bothering the person. Nutritional balancing can help by stabilizing the nervous system and improving general brain functioning. This is a deeper, but much slower type of correction.

**HYPOGLYCEMIC ATTACKS**

In this common disorder, low glucose in the brain cells or low cellular energy production for some other reason is the immediate trigger for a panic episode. The brain is indeed starving and is in some real danger. This triggers a powerful fight-or-flight response as the adrenal glands secrete adrenalin and cortisol in an attempt to raise the blood sugar. However, in susceptible individuals, the adrenals do not respond properly and the blood sugar may drop lower, as glucose is used up during the stress reaction. This can set up a vicious cycle that quickly escalates into a full-blown panic reaction or attack.

Symptoms usually include mental confusion and disorientation, in addition to all the other symptoms of a general panic disorder listed above. Since the brain is in actual physical danger due to low energy, if the mind is not working well hypoglycemic attacks can cause violence as well. In other words, the person is suffering an actual physical attack on the brain and may respond as if attacked. Chapter 29 discusses the correction of hypoglycemia, which usually responds very well to a nutritional balancing program.

**NERVOUS BREAKDOWNS**

This term is not used much any more. However, it is a helpful phrase that refers to more chronic feelings of panic. In other words, the symptoms listed above under breakthrough disorders are present much of the time. They often come and go depending on one’s fatigue...
level or other factors. For example, at times one may experience tingling in the limbs, some
trembling, occasional cold sweats, palpitations, shortness of breath, some dizziness and
lightheadedness. One may also feel, at times, like one is dying or out of control.

Since this is more chronic, it may take longer to respond to nutritional balancing, though
not necessarily. The same principles discussed above apply to this situation. The Roy Masters
meditation exercise may also be very helpful.

The physiology of breakthrough disorders. The sections above are a sampling of
common breakthrough disorders. All tend to have the following in common:

- Some degree of instability or hypersensitivity of the nervous system.
- They often occur in more sensitive individuals. Women may be somewhat more affected by
  panic attacks than men, but men may suffer more PTSD than women.
- Nutritional and other biochemical abnormalities always play a part in these disorders.

Hair analysis patterns commonly seen with breakthrough disorders include:

- Four lows, four highs or fast oxidation, often with a low sodium/potassium ratio. All of these
  are associated with instability in the body and in the nervous system.
- Slow oxidation, often with a low sodium/potassium ratio, or a low phosphorus level. These
  are associated with lowered vitality.
- Elevated toxic metals, especially copper, mercury, iron or cadmium, though others may be
  involved, as well.
- A bowl pattern. This often indicates a feeling that one has nowhere to run, causing a feeling
  of being trapped, perhaps by a memory or something else one cannot control.

A philosophical aspect of breakthrough disorders - upward movement of energy.
All breakthrough disorders involve an upward movement of subtle energy that precipitates an
attack. The energy may move from a lower level of the brain to a higher brain center, or it can
move from a physical body aspect upward to the mental level.

Anything that will stop the upward direction of energy movement will reduce or stop
these disorders. The downward direction of movement of energy permits higher or finer energy
to interpenetrate and eventually heal the lower brain centers and the body. Activities that will do
this tend to be grounding, centering, calming and of a lower pitch or tone. This means that the
vibratory level is somewhat lower, in fact. Activities and methods that are excellent include:

- Grounding foods such as meats, in particular. Cooked roots are also grounding.
- Parasympathetic nutrients help a lot, such as animal glandulars, calcium and others.
- Walking slowly and gently, or chanting, singing or just listening to soft and especially lower
tones of music with a regular rhythm such as quiet classical or perhaps church music.
- The Roy Masters meditation exercise, which specifically forces one to move energy down the
  body from the head to the hand. This exercise can be made even better by forcibly sending
  energy downward, all the way to the feet, while doing it.
- Studying grounded material, even the bible, is helpful for some people as long as one does
  not become emotionally involved, but simply reads quietly for enjoyment.
- Use of a near infrared sauna and coffee enemas are actually quite grounding as well.
Factors that tend to make breakthrough disorders worse include:

- All drugs, and yin foods such as all sugars, sweets, all raw foods, and juices.
- Listening to jazz and rock music, or any syncopated beat, or any loud or emotional music.
- Allowing oneself to become upset, fatigued, hungry, thirsty or otherwise out of sorts.
- Sitting in front of computers and televisions, or using telephones, especially cell phones or cordless phones. Only corded phones do not emit harmful electromagnetic fields.
- Walking too fast, especially bobbing the head up and down when walking, and doing most vigorous sports. Especially ungrounding are skiing, soaring and similar sports.

The concept of the movement of subtle energy is well understood in our language. When someone is not well mentally, one may say he is upset, uptight, wound up, mixed up, goofed up, messed up, screwed up and so on. When one is feeling better, we say he has calmed down, settled down, slowed down or is winding down. In other words, when one is not well, the lower energies surge into the higher brain centers and disturb or even destroy them. However, when one is well, the finer mental energies move downward from the higher brain centers into the lower centers and into the body, bringing more peace and harmony.

**Healing breakthrough disorders.** With this principle in mind, helping people with all panic disorders can be done by:

- Trying to halt the upward movement of energy from the lower centers to the higher ones.
- Stabilizing and balancing the nervous system and the physical body to reduce their irritability and reduce stray energetic discharges from the lower centers and from the body.
- Removing the deep or subconscious causes, which are memories, emotions, physical traumas or biochemical imbalances in the body and the brain.

Nutritional balancing is extremely helpful and can often stop panic episodes of many kinds in a few days or less. Among the reasons are:

- The direct sedative effect of nutrients such as calcium, magnesium and zinc can “short circuit” the alarm response of the nervous system that leads to a panic attack.
- Balancing the autonomic nervous systems reduces triggering mechanisms for panic attacks.
- Eliminating toxins of all kinds, especially copper and mercury, also reduces many triggers and helps the nervous system to become more stable.
- Improving overall vitality and balancing the oxidation rate enhances adaptive energy that can be used for deeper healing of all memories and traumas.

Sauna therapy is extremely helpful for all panic disorders for the following reasons:

- The sauna is warm and soothing, and provides a peaceful, protected space to relax.
- The direction of movement in all saunas is downward and calming. This is much more the case with a near infrared light sauna because the red and orange colors of the lamps tends to activate the lower energy centers of the body and helps focus energy here. However, all saunas tend to be somewhat grounding and calming for the nervous system unless extremely hot.
• Near infrared energy also seems to help loosen the grip of old emotional traumas.
• Sauna therapy greatly enhances the removal of all toxic metals and thousands of toxic chemicals from the body. All can be triggers for panic disorders, and can even help hold in place unconscious memories and traumas. Exactly how this works is a mystery, but many people find that removing toxic metals seems to “lighten their load of traumas” in some way.

HIGH-LEVEL BREAKTHROUGH DISORDERS

A different type of breakthrough disorder occurs when spiritual or other higher level material breaks through into regular waking consciousness. Examples are flashes of insight that a person may have, or premonitions that a disaster has occurred and one must call a friend or family member. Dream material may be of this nature, although it breaks through only indirectly if one can recall a dream in the morning. This can be equally frightening and disturbing to people, and many run away from it, although usually it is beneficial in some way. The best way to handle these problems is usually to calmly accept the possibility that one is receiving information from credible sources, even if it is not under one’s control at this time. By developing oneself further, often such flashes of insight will start to occur more regularly and will become easier to control and work with.

COMBINATION DISORDERS

General information. Combination disorders may involve several levels of brain functioning, are generally chronic and are often related to what may be called spiritual imbalances. This idea is discussed below.

BRAIN FOG

Brain fog is very common today, although it is not a recognized diagnosis in the DSM-IV. It may be described as chronic, low-grade, reduced mental clarity. It may affect many areas of brain activity including a reduced access to some memories, reduced processor speed and agility, and it may affect the stress response. It also definitely affects the tuning faculty as well.

It may feel like a cloud hangs over one’s head that reduces one’s clarity of mind. It may feel a little like an alcoholic hangover, yet it is not due directly to drug use, or to a specific toxin or diagnosed medical condition. The condition affects adults and often children, sadly. It impairs learning, school and work performance, personal relationships, and can lead to low self-esteem, accidents, unhappy marriages and severe frustration. It may be responsible for some crime and delinquency as well. Some people have lived with brain fog for so long they consider it normal. In many cases, however, it develops quite suddenly in late childhood or in adult life.

Causes. Biochemical and nutritional causes must be involved, in most cases, because the condition responds well to nutritional balancing programs. No single nutritional imbalance appears to be responsible, but rather a combination. In some cases, copper imbalance appears to be primary, but others definitely involve other toxic metals, toxic chemical exposure, adrenal exhaustion, infections such as candida albicans, parasitic conditions affecting the brain, hypoglycemia, nutrient deficiencies or bowel toxicity. In a few cases, food allergies or food toxins such as Nutrasweet or aspartame are part of the problem. In some cases, it can result from
the use of medical or recreational drugs. Lifestyle causes may be secondary such as lack of sleep or exercise. Other more unusual causes in some instances may include:

- **A need for grounding.** The person is floating rather than focusing on a physical level.
- **Extreme sensitivity to one’s environment, in part due to adrenal burnout, usually.** This causes a type of sensory overload that may cause a person to shut down to some degree. Some autistic children have this difficulty.
- **A psychological defense.** Brain fog may be a way to deal with conflict or an information overload. Some dementias begin as a way to avoid situations that are not to one’s liking.
- **Chiropractic issues, a chronic sinus infection, electromagnetic stress, reduced oxygen to the brain due to arteriosclerosis or heart problems, or rarely a tumor are also possible.**

**Brain fog correction.** Most people feel better rapidly with a nutritional balancing program. The Roy Masters meditation, sauna therapy and coffee enemas are needed, at times.

**MALAISE**

Malaise is another older term that may be described as a *lack of joy in living*. It is somewhat like a mild depression or dysthymic disorder, but not quite the same as it is more of a generalized slowing of all mental activity. It is often most evident in a person’s manner, way of speaking, subject matter of speech and general attitudes of hopelessness or “what-can-one do?”

Speech and affect are often in a tone and tenor that is whiny, complaining, blaming, negative and doom-and-gloom. Actions may tend to be somewhat repetitive and mechanical, rather than creative and excited. Even new experiences seem to offer little help after a short while and do not uplift the person. Unlike depression, the person usually has a normal to excessive appetite, decent sleep habits and is not withdrawn from society, family or friends. One may feel rather hopeless, but not usually suicidal, as occurs with depression. Most people with malaise just endure. Usually no clear medical diagnoses are present. Hair analysis will reveal plenty of imbalances, but none in particular, except often mild to moderate slow oxidation.

**A spiritual disorder.** A person with malaise is often not in touch with his or her true gifts or talents. As a result, a person may feel alienated in some way. Often, however, the cause is an unwillingness to open oneself fully to God or the higher self. This applies even to those who profess to be ‘spiritual’ or religious.

**Correction.** Malaise can be one of the most resistant *transition* disorders imaginable. Many end up on anti-depressant medication. This may relieve some of the symptoms, but may create others, as well. Nutritional balancing can be of great help with the more physical or biochemical aspect of the disorder. Other people need a different type of healing and many take up various spiritual practices, for example, to seek for joy and fulfillment in their lives.

**A Christian solution.** Passing through a time of malaise is a common topic among Christians. Many say they were in a “funk” for some reason. At the time, they were either non-believers, or they asked for God’s help but they now realize they never gave themselves fully to God or Jesus. By holding back some part of themselves, they were blocking the love and grace of God from coming into their lives. This, they realize, was the cause of their malaise.

Overcoming malaise often required some sort of crisis that caused the person to surrender fully to spirit or God. Upon falling to their knees, figuratively, the malaise was taken away, and joy and a certain peace descended upon the person for the first time. The person realized he or she had been a ‘superficial Christian’ before the conversion, or “being born again” of spirit.
As a doctor, this is of interest, as it is real and apparently helps thousands of people worldwide. While it may be a purely spiritual revelation, it also seems that it is a type of emotional release of a lingering part of the ego self. In addition, it appears that the person opens himself to more guidance and to the love of the Creator in some way. This may correlate with an opening of the seventh (or crown) chakra energy center that everyone has, regardless of his beliefs or religion. By taking the two separate steps of 1) surrendering deeply and 2) opening even more to guidance and assistance, malaise often vanishes for good.

YOUNG WOMEN'S SYNDROME

This is a constellation of symptoms that is extremely common in young women between 15 and up to about 35 years of age. It is related to malaise in some ways. These women tend to be sensitive, spiritually-minded and often are not in healthy relationships. This may contribute to the pattern, but is often not the underlying cause.

General symptoms include depression, malaise, low libido, low self-esteem, copper toxicity symptoms such as headaches, acne and PMS, and often memory impairment, brain fog and stress. Hair mineral analyses usually reveal a slow oxidizer pattern with either hidden or overt copper imbalance and low adrenal and thyroid activity. The syndrome or constellation of symptoms is easy to improve with nutritional balancing in many cases. I mention it because it occurs so commonly today and it involves more than one level of brain functioning.

IRON COMBINATION DISORDER

Iron is a curious mineral in that it gives strength of character and is an essential mineral. However, it is also quite toxic in excess, and iron toxicity is extremely common. Like the metal itself, iron “hardens” the personality causing a brittle, arrogant and angry person, though this may not be apparent at first. It is a superficial personality, and one that is difficult to reach on a deep emotional level.

Also, the person’s thinking is distorted and quite dull and short-term. Hidden agendas may be present, and often they are authoritarian and socialist agendas. Behavior is often bizarre and ‘upside down’, meaning it does not make sense logically. For example, political leaders with this condition are corrupt, but excuse their behavior as being somehow necessary to achieve their longer-term goals. Their motto is the same as that of Karl Marx – the ends justify the means.

Another quality of the pattern is an energy vampire quality to the personality, which is a desire to steal energy or otherwise control or even harm others. For example, parents or teachers with this tendency may ruin a child’s innocence by spoiling him or through bizarre requests and punishments that make no sense logically. This is a subtle type of emotional trauma that goes unnoticed by the authorities because it is so widespread, yet it damages millions each day in school, for example. This curious disorder is not recognized in psychiatry, in part because many doctors have it themselves and do not view it as pathological.

CADMIUM AND THE BRAIN

Cadmium toxicity, especially if severe, causes a generalized dullness of the brain. The specific effects of cadmium on the brain are varied and include:
According to Dr. Eck’s research, it drives copper back into storage, reducing some effects of copper imbalance such as spaciness and emotions such as fear and perhaps sentimentality.

Cadmium replaces zinc, which is a calming neurotransmitter. Cadmium is more stimulatory, but not as much as iron, for example. Cadmium can thus brighten up the personality a little.

Cadmium has a ‘hardening’ effect on the personality and is considered a lower ‘male’ element. It makes a person seem more tough and masculine. However, the person is weak underneath because cadmium is extremely toxic.

Cadmium helps keep a person in fast oxidation, and supports the more egotistical side of a person’s nature in most cases.

**INSOMNIA**

Insomnia is now one of the most common conditions in developed nations. In nutritional balancing science, correcting insomnia is a top priority since rest and sleep are essential whole system behaviors that must occur for healing to proceed rapidly. Fortunately, in almost all cases, natural methods will take care of insomnia, eventually. However, if they do not, then using a prescription sleeping medicine is better than not sleeping.

**Lifestyle factors involved in insomnia may include:**

- Going to bed too late. It is best to be in bed by 8-9 PM, or before the sympathetic nervous system kicks into high gear to keep one awake in the evening. The hours before midnight are the most beneficial for sleeping for other reasons as well.
- Mental stress, worry, preoccupations or general tension.
- Feeling hot, cold, uncomfortable in bed, itchy or some other bodily discomfort.
- Noise, too much light or perhaps a partner snoring or moving around too much.
- Subtle factors such as electromagnetic stress from electrical devices, or even wires near the bed. Even the vibration or presence of others nearby can be a factor, at times.

**Biochemical and nutritional causes of insomnia include:**

- Calcium, magnesium or zinc deficiencies. Calcium, magnesium and zinc are sedative elements. They powerfully relax the muscles and the central nervous system, and place a damper on all mental and physical activity. When they are deficient or biounavailable, sleep is usually not sound or deep due to excessive muscular or nervous tension. This can usually be corrected easily, at least to a degree, with an improved diet and the correct supplements.
- Copper imbalance. This is a very common cause of insomnia. Copper, in excess, activates the sympathetic nervous system. It may not be easy to correct quickly. Over time, however, copper can usually be brought under control quite easily.
- Autonomic nervous system imbalances. Rest and sleep are vegetative states that are highly parasympathetic. Any problems moving into a parasympathetic state will tend to impact rest and sleep. Several hair analysis patterns such as sympathetic dominance and four lows can indicate autonomic nervous system dysfunctions.
- Toxic metals. Excessive amounts of any of the toxic metals can impact one’s sleep.
• **Hypoglycemia.** This can often be avoided by eating a snack before bed. Eating a large meal before bed is not considered healthful, but a snack or small meal may be needed, at times.

• **Other.** Many health conditions including sinus problems, back aches, itchy skin, breathing problems, hot flashes, night sweats and others can affect rest and sleep.

**Suggestions for better rest.** Simple ideas that help many people are to make sure to take a walk or get a little exercise during the day. Also, wind down all activities early in the evening. Preferably cease all intellectual and intense physical activity, and turn off computers by 6 PM or so. Quiet, relaxing music or spiritual reading or CDs may help in the evening to wind down.

Make sure the bedroom is dark, cool, quiet, ventilated and comfortable. Before bed, rubbing the feet, particularly all around the toes, is very relaxing and can balance the meridian energies in the body. Massage, use of a chi machine, and perhaps a warm shower or warm bath with Epsom salts helps some people relax. However, do not take Epsom salt baths more than twice per week.

**Natural sleep remedies.** The nutritional balancing program, especially with extra calcium and magnesium in the evening, will clear up many sleep difficulties. If it does not, or until correction occurs, natural remedies include a small cup of warm, preferably raw milk or a small cup of strong chamomile tea. Other calming herbs include valerian, hops, passion flower or others. Nutritional supplements that might help include calcium with magnesium, and perhaps zinc. Others are GABA, threonine, vitamin B6, L-tryptophan or 5-htp, melatonin, and perhaps others. Homeopathic formulas also help some people. Drugs should be used only as a last resort as they are toxic and perhaps addictive.

**Teens need more rest and sleep.** Sleep deprivation can often explain difficult or even senseless behavior of children. Teens and all older children should get 10 or 12 hours of sleep each night and ideally go to bed by 9 PM at the latest. I know this is difficult, but it is best and quite important for most children and teens. It can help them in school and, of course, with overall health as well.

**NARCOLEPSY**

Narcolepsy, from my perspective, is just a fancy word for fatigue that can cause a person to fall asleep at embarrassing or dangerous times such as driving a car. Drugging people for it is not needed if the cause is corrected. Stimulant drugs used for the condition can occasionally cause a disaster. A well-designed nutritional balancing program can increase the energy output of the body and remove toxins from the brain and nervous system that may cause many cases of narcolepsy.

**THE ENHANCEMENT OF BRAIN ACTIVITY**

Brain enhancement is the idea of improving the functioning of the brain far above that which normally occurs. Promoting brain enhancement is a central focus of nutritional balancing. It often occurs quite easily and automatically. A simple case history may be helpful:

*Mrs. James brought her seven-year-old daughter for consultation due to repeated respiratory infections. These cleared up within about three months on a nutritional balancing*
On a repeat visit, to my surprise, Mrs. James happened to mention that her daughter’s grades in school had jumped from C’s and D’s to all A’s.

Mental faculties that can be enhanced in almost everyone today include:

- Memory, processing speed, concentration and general thinking and reasoning skills.
- Greater emotional control and balance of the emotions.
- An enhanced tuning range of the brain, or a greater power to receive information.
- Better memory access and better ‘channel separation’. This basically means less confusion and corruption of ideas and facts.
- Improved ability to ‘seek’ and ‘scan’ while tuning in. These are specific skills that allow a person to scan through memory and information that is presented from outside, looking for clues and details to be able to process and classify it correctly. It involves intelligence, but also memory access and other skills.
- Enhancement of more subtle qualities such as awareness, discernment, intelligence, good judgment, mental balance, grounding, centering and wisdom.

Brain enhancement also involves other activities. However, correcting the diet, the lifestyle and balancing the body chemistry are an excellent foundation. Other aspects include specific studies, writing, meditation and other techniques. In the past, some of this was taught at the universities. Today, colleges do not focus on it as much, in my opinion.

**Disorders due to brain enhancement.** Brain enhancement is wonderful, but can cause problems for people. The following suggestions may help avoid most problems:

- Do not allow knowledge and understanding to “go to one’s head”. Many bright individuals get caught up in their own brilliance or academic achievements. Some do this by turning their talents to making money or becoming famous. Many use their intelligence to harm their enemies. Others become caught up with dictators and sell their souls, so to speak, for recognition, power or other rewards. For example, many smart people supported Adolph Hitler and nearly destroyed all of the Western world.
- Maintain a healthful diet and lifestyle. Many brilliant people ruin their health because they forget they are still human and need to eat correctly, sleep enough, and follow a healthful lifestyle. Eating meat, for example, is very important for most intellectually-minded people. It has more of the zinc and brain fats that are needed by most people. Everyone must also recognize that knowledge is power, and having more of it is a tremendous responsibility.
- Remain grounded and centered. Those who use their brains more than others must work on grounding themselves often. Breathe deeply, take short walks, rest enough and preferably do the Roy Masters exercise. These will help one avoid becoming “up in the head” too much, as happens with so many college professors, for example.
- Stay abreast of other points of view. Many academics, in particular, live in the ivory tower of the university, business or other community and do not read widely outside of their field of expertise. This can lead to tunnel vision and very distorted thinking. The remedy is to read outside of your field, and preferably read some popular books or articles, not just technical ones.
SEXUAL ASPECTS OF NUTRITIONAL BALANCING SCIENCE

Rebecca, age 30, had very little sexual desire, although she loved her husband very much. Her first hair analysis showed a slow oxidation pattern, indicating very low energy production at a cellular level. She also had a calcium level of 251 mg%, a calcium shell pattern. This can cause a degree of sexual numbness or lack of feeling on the skin. It is also associated with conditions such as vaginal dryness, pain on intercourse and depression. Within six months on a nutritional balancing program, Rebecca reported much more interest and enjoyment of sex. A retest analysis revealed a calcium level of 126%, indicating a much better energy level.

The sexual aspects of minerals and the oxidation rate are extremely interesting. This chapter also discusses many other topics related to nutritional balancing and sexuality.

Secondary sex characteristics and minerals. The sex organs define us as men and women physically, but not mentally and emotionally. The latter are more dependent on what are called secondary sex characteristics. These include a set of attitudes, feelings and general intent in regards to sexuality and intimate relationships. These are heavily influenced by thousands of subtle chemicals that regulate various areas of the brain, including hormones, pheromones, endorphins and others. Today, the production of these chemicals has been altered significantly in most people by nutritional imbalances, environmental pollution, ionizing radiation and stray electromagnetic fields, in some cases. This has altered many people’s perceptions in this area and has directly or indirectly caused a large number of sexual and emotional disturbances. These include impotence or erectile dysfunction, infertility, low libido, sexual excesses, premenstrual syndrome, menopausal issues and others.

By reviewing hundreds of thousands of hair mineral analyses, Dr. Eck discovered that certain hair mineral levels, ratios and patterns relate to specific attitudes and qualities related to sexual matters. Interestingly, these often parallel the physical or chemical qualities of the minerals themselves.

MALE AND FEMALE ELEMENTS

One of Dr. Eck’s most important observations was that certain minerals are more ‘male’ and others more ‘female’. Let us begin this discussion with general facts about all the male and female elements, followed by a discussion of the most important ones:
• The male elements tend to stabilize and balance, while most of the female elements tend more
to excite the mind and the emotions.
• The male elements all dull the mind to some degree. The female elements tend to excite and
enhance mental functioning to a degree.
• Most male elements tend to be harder, while the female elements are softer, or even liquid.

THE MALE ELEMENTS  (starting with the best or highest consciousness)

**Zinc. Qualities.** Zinc is a rather soft metal that is one of the most spiritual and more
enlightened male elements. It is also one of the most balancing elements in our bodies. In this
book, zinc is called a *sedative, anti-stress* and *gentle strength* element due to its effects on the
body. Some health authorities claim it is a calming neurotransmitter. Men require zinc in the
prostate gland, and male semen is very rich in zinc. Almost all men and women need more zinc.

Most men and some women are, to some degree, *zinc-dominant*. This means their
thinking and behavior has some qualities that are related to zinc in the body. However, this trait
is more common in America than in Europe or other areas of the world. This is due to
Americans eating much more meat, the food that contains the most zinc. Also, Americans
smoke much less today than most other developed nations. Smoking increases cadmium, iron
and other harmful elements that compete with zinc. Fewer women are zinc-dominant due to
copper overload. This makes them more emotional and sentimental, as a rule, than men.

**Relationships.** Zinc-dominant men make decent partners. They tend to be more healthy,
balanced and stable than others. The zinc type of man is more modern, developing only in the
past century or two. He is usually less brawny, more shy, less angry and more open to spiritual
development. He is also less driven to sex and more interested in a complete relationship. He is
also less swayed by women’s charms and usually much more interested in a woman as a total
person rather than just interested in her body. The zinc-dominant man is an evolutionary leap
that is assisting world peace, spiritual development and other good things in the world. This is a
major reason why vegetarian diets, which are often very low in zinc, are not healthful at all.

**Effect on the oxidation rate.** Zinc either balances or may even slow the oxidation rate.

**Female counterpart.** Copper is the familiar counterpart of zinc. Zinc and copper are
called the *twins* in this book because they are so closely related to each other.

**Iron. Qualities.** Iron is a very hard, brittle metal, but more malleable than cadmium, for
example. It is an older and more primitive male element. I think of soldiers marching with their
iron guns and swords. In the body, iron is an essential mineral, but too much causes severe
inflammation. Iron also hardens the personality and causes odd behavior that was described in
the previous chapter. Iron builds up in the amygdala, a part of the brain associated with rage.

**Relationships.** The iron-dominant person is strong on the outside, but angry and
somewhat rigid and brittle, and thus weak underneath. He or she is also usually somewhat
emotionally cool or cold, though often of an emotional nature. Iron is found more in men than in
women because young women lose some iron each month in menstrual blood. Also, men often
eat more red meat, which is higher in iron, than do women. Some women, however, become
iron toxic from taking vitamin pills with iron, eating a lot of meat or white flour, or by holding
onto anger. Interestingly, holding onto anger inflames the liver and seems to make iron more
difficult to eliminate.
Iron men may become enraged when not satisfied sexually, but they are not usually violent, just angry. Also, iron-dominant men tend to be attracted to coppery women. Iron-dominant women tend to be “strong” and are attracted to copper-dominant men. Iron types do quite well in society. They are not great partners due to some rigidity, anger and weakness, but manage adequately in most instances.

Effect on the oxidation rate. Iron may enhance the oxidation rate somewhat, and is needed for many essential body functions. A toxic form of iron, perhaps an oxide, is present in excess in most slow oxidizers.

Female counterpart. Manganese is a counterpart of iron. The two elements are found together in natural mineral deposits. They are also next to each other in the periodic table of the elements, indicating certain common biochemical qualities. They also occur together in the body, for which reason they are called the friends or amigos in this book.

Cadmium. Qualities. Cadmium is a very toxic, tough, hard, and brittle metal. These words also describe its psychological qualities, which also include angry and violent. It is the lowest level of the male elements and interferes with zinc and iron, which are more evolved and more spiritual male elements. Everyone needs more zinc today, in part to protect themselves from cadmium in the environment.

High-cadmium men and women are weak or brittle underneath a macho exterior. They are somewhat short-tempered, in most cases, and can be violent when pushed too hard, or when they are not otherwise well balanced. Dr. Eck called cadmium the ‘pseudo-male’ element because it gives the appearance of strength, but it is really weak underneath. It gives a kind of daring strength and ability to push through difficult times.

Cadmium is found more commonly in people such as police and military personnel. They may need this tough and somewhat macho quality to take the risks needed to do their jobs correctly. Too much cadmium, however, will impair their judgment and lead to violence. Cadmium toxicity is also common among women who are living and working in the ‘man’s world’. Some cadmium gives these women a toughness that they feel they need. They become tough cookies as a result. Unfortunately, cadmium is very toxic and its presence in working women, especially, is a prime reason for more heart disease and cancer in women today. It can also contribute to some birth defects, ADD, autism and cancers in their children.

Vegetarians may accumulate too much cadmium because many do not ingest enough zinc. Meat is one of the few good sources of zinc. Cadmium often gives vegetarians a rigidity and even a violent attitude toward those who disagree with their beliefs. Cadmium worsens the vegetarian’s deficiency of zinc and significantly worsens their health, unfortunately.

Relationships. Cadmium types tend to have difficulty in relationships. They are often quite sexual, but angry and violent underneath, so they have trouble with really loving any partner. As partners, they are tough, rigid and insecure because their body chemistry is not healthy. They are also often self-centered, controlling and argumentative.

Effect on the oxidation rate. Cadmium speeds up the oxidation rate in a very toxic and uncontrolled way. It is said to have an “aldosterone-like effect”.

Female counterpart. Mercury is a major female counterpart. It is somewhat like cadmium in that it causes weakness and violence, and is found in the same column on the periodic table as cadmium. This indicates certain common biochemical qualities.
**Fluoride. Qualities.** This element was not part of Dr. Eck’s set of male and female elements. However, it is another lower male element that is unstable and a highly toxic mineral. Its toxicity occurs mainly because it replaces calcium and iodine, as well. These are much more stable minerals needed for intelligence, balance and thyroid activity, among many other functions. Fluoride in excess definitely dulls the mind and causes a much lower IQ. It is also associated with Down’s syndrome, perhaps other birth defects, cancer and other disorders.

Fluoride may be needed in tiny amounts for bone health and other functions as well. However, toxicity is the rule today, and deficiency is extremely rare or non-existent. Contamination is due mainly to the addition of toxic fluoride compounds to drinking water supplies, at least in the United States and Great Britain. It is also occasionally an air or water pollutant due to mining and refining uranium for nuclear power plants, and fertilizer and aluminum manufacturing.

**Relationships.** The rare man who is deficient in fluoride tends to be too soft, which coppery women do not like. Those with too much tend to be dull and not much fun.

**Effect on the oxidation rate.** Fluoride interferes with thyroid activity, so it often slows the oxidation rate. **Female counterpart.** Iodine, but only partially so.

**THE FEMALE ELEMENTS** (starting with the best or highest consciousness)

**Copper. Qualities.** This soft, malleable mineral is the main feminine mineral today. It is required for female fertility, all female organ functions and is closely associated with estrogen levels. Female genital secretions are high in copper, though they contain plenty of zinc as well.

Copper is a unique mineral that has caused modern civilization to be softer, gentler and better in many ways. However, coppery people are often too soft, and too gentle and emotional. By this I mean they tend to lack backbone, moral principles and the courage of their convictions. Copper excess is common today and causes innumerable health problems for women and men. Male children, in particular, suffer because they are born high in copper due to their mothers’ excessive copper load. Too much copper in young boys and men makes them effeminate and contributes to ADD, ADHD, autism, homosexuality in both boys and girls, and other difficulties.

**Relationships.** Most women today are quite copper-dominant. It causes them to be more emotional, softer and gentler than men, and enables them to bear children. Infertility occurs when copper is out of balance. Coppery women like to be in love, even if it is a fantasy. This often leads to poorer quality relationships and sad romantic adventures. Coppery women often hate men secretly, one of the reasons they are so emotional.

Zinc and iron balance and stabilize more emotional coppery women. Thus, copper and zinc go well together, as do copper and iron. Copper does not mix well with cadmium and fluoride, however, as the violence of cadmium can easily overwhelm the softness and gentleness of copper.

**Effect on the oxidation rate.** Copper generally slows the oxidation rate. **Male counterpart.** zinc.

**Manganese. Qualities.** Manganese resembles iron in appearance and qualities. It is an older female mineral and less important today. Low manganese in animals may cause a lack of maternal caring for the young. However, I have not heard of this in human beings, especially since most people tend to be low in bioavailable manganese.
**Relationships.** Manganese types in both men and women tend to be somewhat emotionally detached, or even schizoid. These traits can be good for keeping peace in relationships. Very high manganese can cause irritability, anger and even violence in rare cases.

**Effect on the oxidation rate.** Manganese usually speeds up the oxidation rate by supporting or irritating the adrenal glands. **Male counterpart.** Iron.

**Mercury. Qualities.** Mercury is one of the most toxic elements in our world today, along with cadmium. It is associated with the *mad hatters* in the Alice in Wonderland story. It is unstable, emotional, and somewhat crazy, whacky or kooky. This means it can be harmless, at times, but quite odd or strange. It is the only metal that is liquid at room temperature. The entire world population is somewhat affected by mercury due to its presence in most air, water and food supplies worldwide.

**Relationships.** Many of the world’s divorces have to do with the slightly crazy qualities that mercury can impart to a human being. Just how this occurs is mysterious, but it causes strange and irrational behavior that may be difficult to tolerate. It is related to copper in interesting ways, and high mercury on a hair test is an indicator for hidden copper imbalance.

**Effect on the oxidation rate.** Mercury can have a variable effect on the oxidation rate, though it usually speeds it up a little. **Male counterpart:** cadmium.

**Iodine. Qualities.** Iodine is a soft, reddish element that is needed in every body cell. It is particularly important for women’s breast health, for beautiful hair and skin, and for the production of thyroid hormones. Deficiencies cause one type of hypothyroidism, a common problem that affects women the most. Iodine deficiency in Western societies is due almost entirely to excess amounts of iodine antagonists in the environment – fluorides, bromides and chlorine compounds.

**Relationships.** Iodine is gentle, beautiful and gives softness and gentleness to some men and women. It is generally very helpful for relationships. Deficiency is associated with irritability, thyroid disease, lack of intelligence, obesity and other disfigurements that are not helpful for relationships.

**Effect on the oxidation rate.** Iodine may enhance the oxidation rate by speeding up thyroid activity and cell metabolism in general. **Male counterpart.** Fluoride.

**FUTURE MALE AND FEMALE ELEMENTS**

This section is more speculative. I believe two other minerals, selenium and silicon, will become far more critical for our health and sexual relationships as well. This has come to light since Dr. Eck’s death, though he was very aware of the importance of these minerals in other ways. They will help balance zinc and copper in women. Later, men will be more selenium-dominant, while women will tend to be more silicon-dominant. Let us discuss each of these potential developments of mankind.

**The selenium man.** Selenium, in particular, is associated with qualities of great stability, joy, happiness, an outgoing personality, alkalinity and other positive qualities. Selenium is needed for thyroid activity and liver detoxification. Selenium, along with silicon, gives certain foods their strength, flexibility and smoothness, such as the texture of corn silk, for example. In our bodies, the shiny, smooth surfaces of cartilage, hair, nails and even the interior of the arteries are due to these elements. They are also powerful anti-oxidant minerals. The selenium and
silicon content of foods varies a lot depending on how and where it is grown. America has the most selenium in her soil in an available form. It helps keep her people supple and strong, though more and more food is now imported from low-selenium nations such as Mexico and Asia. Selenium toxicity occurs only rarely.

Psychologically, the qualities of selenium and silicon are similar. These elements are associated with joy, happiness, silky smooth relationships and a good disposition. Sexually, these elements are restrained, in control and interested in having fun without hurting anyone in the process. The selenium or silicon man or woman is very balanced with sexual behavior, integrating it well and not out of alignment with his or her higher goals in life.

**Women in balance.** Many women today suffer from copper overload and zinc deficiency. While nutrition is often the critical factor, another factor is the men they live with. As the men become more balanced, their women will be far more able to balance zinc and copper in their bodies. This enables them to balance their rational thought and their emotions.

**Silicon as the new female element.** Like selenium, silicon is very balanced and not particularly sexually-oriented. Yet it is flexible, open-minded and not at all resentful or angry about sex, or men in general. Silicon-dominant women are also light, airy, fun and happy people to be around because those are the qualities silicon offers. This is well-known in the field of animal husbandry, where silicon is an essential mineral for growing a beautiful coat on certain furry animals such as sheep and goats. Silicon gives some animals the qualities of happiness, friskiness and a positive disposition.

**SEXUAL ASPECTS OF FAST AND SLOW OXIDATION**

Dr. Eck noted differences between fast and slow oxidizers in the areas of sexuality and relationships. These make sense easily when one considers the differences between an alarm stage of stress and an exhaustion stage of stress.

*Healthy fast oxidation is associated with more interest in sex, generally, and a more aggressive sexual nature to some degree.* Reasons for greater interest in sex among most fast oxidizers may include:

- *Higher levels of sex hormones and much better energy levels.* Many have ‘energy to burn’.
- *Less mature and more ego-based.* Sex, for most of them, is mainly an ego-based activity.
- *More extroverted or ‘social animals’.*
- *More impulsive and likely to act on their impulses.*
- *More sensitive to touch due to lower tissue calcium and magnesium levels.*
- *Less inhibited and less romantic, perhaps, due to lower copper levels.*
- *‘Iron types’ of fast oxidizing men are attracted to coppery women, which is most of them.* In contrast, slow oxidizing men tend to be more coppery themselves, and perhaps for this reason are less attracted to coppery women.
- *Sexual intercourse with orgasm slows and thus balances a fast oxidation rate temporarily.* This can relieve anxiety and irritability in fast oxidizers more than in slow oxidizers.

Slow oxidizers tend to be less physically sexual. Reasons for this may include:

- *Generally lower sex hormone levels and often much lower overall energy levels.*
- *More introverted or focused within, rather than on others.*
• More mature, which means that many are less oriented toward physical pleasures.
• Less sensitivity or sensual awareness in most cases due to high tissue calcium levels, particularly those with a calcium shell pattern on a hair analysis.
• More “up in the head”, rather than physical, due, in part, to lower energy levels, more maturity and higher copper levels. They may be more analytical and romantic rather than as physically interested in sex.
• More likely to suffer from traumas and shame around sex due to early molestations and other embarrassments. While this can increase sexual behaviors, it can inhibit them as well. For example, some men may prefer pornography or masturbation due to these problems.
• More likely to have physical problems that can interfere with sexual enjoyment. For example, slow oxidizer women are more prone to depression, anxieties, vaginal dryness, and pain or irritation with sexual intercourse due to physical imbalances.

Some slow oxidizers have an exaggerated sexual desire. Reasons for this may include:

• Unrealistic romantic notions and projections cause some women, in particular, to get into trouble with sexual activities.
• Too much copper and estrogen dominance due to liver toxicity and other problems may cause more sexual interest.
• Sex is an escape from often deep and hidden feelings of depression, anxiety or low self-esteem, especially for some women.
• Brain fog is common and makes millions of women too open-minded, gullible and unclear about beliefs. Savvy fast oxidizer men easily exploit this trait for selfish purposes of sex.
• An elevated sodium/potassium ratio in a slow oxidizer can increase sexual feelings.

SEXUAL DYSFUNCTIONS

Low libido or low sexual desire. Common causes are low overall energy, a calcium shell that reduces sexual pleasure, the presence of toxic metals such as mercury, copper and others, vaginal dryness and other physical causes, depression, fears and resentments. As the energy level increases and general health improves with a nutritional balancing program, sexual interest often returns easily and quickly, often within a few months.

Erectile Dysfunction. Low zinc, arteriosclerosis, high copper or cadmium, and low vitality are common causes. At times, psychological or other factors are important causes.

Sexual aggressiveness. These are more likely fast oxidizing men or those in a four lows pattern. They often have high levels of cadmium, lead or mercury. These irritate the sex organs and nervous system, increasing a pathological sexual drive. Recently, women have become more sexually aggressive in many instances. Possible reasons for this are that:

• Men are less aggressive today due to high copper, lower zinc, generally poorer health, adrenal exhaustion and depression. More women are deciding to take the initiative, sexually, to find a marriage partner, have a baby, or for other reasons.
• Women with high copper are often more sexual, though often in a romantic way.
• More women are depressed and somewhat numbed by high tissue calcium and magnesium. They may initiate sexual encounters in order to feel better. Sex can become a drug to them.
• Women with excessively high cadmium may act like cadmium-dominant men, which means more physical, more sexual and less romantic.

Homosexuality. Most homosexuals have a slow oxidation rate or a four lows pattern. Usually, copper is out of balance and zinc tends to be low. Homosexuality is a complex phenomenon biochemically, especially in women.

Teen promiscuity. This problem has a lot to do with the general breakdown of traditional moral values and the lack of parental oversight of teens today. Many teens are just experimenting, though they need more education, in most cases, to avoid STDs and predatory sexual partners. Other reasons for promiscuity include low self-esteem for any reason, a powerful need to fit in with the crowd, a history of sexual abuse, or perhaps other problems in the family and home.

I am often appalled when I review hair analyses of teens. Most are extremely slow oxidizers and many have a calcium shell pattern. This is due, at least in part, to a combination of stress, atrocious diets, an unbalanced lifestyle and not nearly enough sleep. I would ask all parents to keep a firm hand on teens to reduce all these problems. I believe this would help solve many of the problems of teens.

Many other sexually-related disorders are discussed in Chapter 31. General sexual behavior and healthy lifestyles are discussed in Chapter 2.

NUTRITION AND SEXUAL ENERGY

Many nutrition systems are designed to enhance sexual interest. This certainly occurs as well on nutritional balancing programs. However, this program can also help those who wish to refocus or sublimate their sexual energy away from so much sex and toward other goals. As body chemistry strengthens and mineral pairs such as zinc and copper come into better balance, sexual desire often decreases. This is not a disease state. It is a state of better balance between the male and female forces within. It then becomes easier to have less sex and focus on more spiritual pursuits. This can be helpful for those with sexual addiction, for example.

To move this process of balancing the body along faster, eat more high selenium foods such as blue corn chips, goat milk or goat cheese, onions, garlic, organic yellow corn products if they are 100% natural, and perhaps some nuts such as Brazil nuts. Meats such as chicken and turkey are also very good. For more zinc, the only good sources are quality meats and eggs, some small fish such as salmon and sardines, and some pumpkin seeds, perhaps. Vegetarians must eat pumpkin seeds every day, and will still have trouble obtaining enough high-quality zinc. Supplements of minerals are helpful, but not as good as foods, as a general principle. For silicon, rice polishings and whole grains are good sources.

SEXUAL DEPLETION PATTERNS ON A HAIR MINERAL ANALYSIS

An important topic that is not often addressed is sexual depletion. It occurs in both men and women, and more so in women, most likely. Hair analysis patterns that may indicate it are a low sodium/potassium ratio, a bowl pattern or very slow oxidation.
Vampirism in the sexual arena. The topic of energy vampires is also not discussed often enough, in my view. It is the stealing of energy from another person that happens in subtle ways. Mr. Roy Masters discusses how sex is probably the single largest arena in which it occurs. Usually, men take energy from women, but it can go the other way as well. It is an unfortunate aspect of male-female relationship that causes nothing but hatred, depression and even serious illness and premature death from diseases like cancer.

Vampirism is a karmic and psychological phenomenon that is not easily explained. However, most people know that when they are around certain people they can begin to feel drained, while being around others does not produce that feeling and may even leave one feeling more energized. Some people just naturally give up energy to all those around them, which is nice but leads to very bad health in many cases. Many cancer patients do this, in fact. In the sexual arena, many factors come into play as the intimate contact between the bodies causes interactions in their energy fields that are quite strong. On the other hand, some people benefit from this interaction as well.

LOVE, SEX, SPIRITUAL MARRIAGE AND NUTRITIONAL BALANCING

What is love? Love means many things to different people. I will suggest that it is the primal energy or force that flows from the Creator to all created things, including human beings, and keeps the physical universe going. It is always present, although one may not always feel it or be able to receive it. As this force of love acts through each of us, it can feel sweet and gentle, while at other times it may seem forceful and come across as harsh or tough love. Thoughtful people know that, at times, one must be direct and even forceful to love another person in the manner they require at that time. Anything less is not love, but rather just acting from fear, perhaps enabling another, or an attempt to manipulate another.

Sex is not love. Many people believe that love has a lot to do with sex. This is not true. While love is a pure feeling or energy, sex is a physical act. Nature designed the act to feel very good so the species would reproduce itself, but it is still just a physical act. For some men and women, therefore, sexual activity is just a biological urge that the body wants to satisfy. For some, the desire for sex is just a desire for attention, which many call love. For some, it is a drug to help them forget their problems for a few hours. For others, it is a way to relax after a hard day’s work. All these are okay, but they are not love and have nothing to do with it.

This needs to be clarified, although it may not be a popular stance today. Love is a pure energy or feeling that is calming and peaceful. Sexual desire is usually somewhat selfish and often deceptive and even manipulative. While love inspires and uplifts, too often sex in uncommitted relationships spreads disease, leads to lowered self-esteem in women, in particular, and tends to spoil men. Separating love and sex in your mind and becoming clear about them is most helpful, especially for young women who are looking for a partner and who really want a loving relationship.

Nutritional balancing can shift relationships. For many people, nutritional balancing helps open their eyes to a new way of living based on common sense and on love of the self and of others. However, this is not how many people live today. As a result, as one’s energy level, mental clarity and emotional balance improve, relationships of all kinds may shift. Friends that one spent time with at bars or cocktail parties may seem less interesting. Work situations in
stuffy offices may be seen as quite unhealthy. Partners who do not care about themselves or others may become more difficult to live with. Instead, one may prefer others who live a healthier life.

Making these changes is not easy in some cases, but are often among the most rewarding changes a person can make. This does not mean one no longer loves people who live on sugar, stay up till all hours of the night or who believe that sex is love and get in trouble because of it. However, one may find it best to distance oneself from such people, and by so doing, show them an alternative way of living.

**Spiritual marriage.** Marriage takes place in the physical world, but also in a spiritual way that is even more important. The idea is to blend your physical energy or ‘marry’ the high self or God. This is the same as what Jesus called becoming the bride of the holy spirit (for both men and women). It is a blending of your substance and energies with another part of yourself, rather than with the lower or physical self of another person. The purpose of this joining is to be able to listen and hear the promptings of the high self first and foremost. One can still marry in the physical world, but this is for entirely different purposes, such as companionship or raising children.

The spiritual marriage with your higher self should be done first, in all cases. Then all your other relationships will work better. The bible states this principle as “first seek the kingdom of heaven and all else will be added thereto…” If your relationship with the high self or God is not placed first, then other relationships tend to become confused and often unhappy and destructive.

**How to contact and have a relationship with the high self or God.** For thousands of years, wise souls have addressed this question. Many methods can help, from making sure you take some time alone each and every day, to using various techniques such as prayer, affirmations and meditations. Each can find his own way, but I will offer a few guidelines simply to avoid errors:

- **While going to a church is superb, just sitting in church may not be adequate to connect a person with the high self or God.** Too many people just listen and have a feel-good experience in church. This is fine as far as it goes. However, letting go of the ego within, sometimes called the lower self, is a great key.
- **I strongly recommend the Roy Masters meditation exercise.** It moves the energy downward from heaven to earth, literally, bringing in a freshness and wondrous new energy to anyone who is willing to use the method daily. It is also safe and can be done at home without special apparatus or training. Other meditations may not be as safe and can connect a person with realms that are unhealthy.
- **Another method that is simple is a daily stroll or slow walk.** This is another ancient method to help people connect with their higher centers or high self. One must walk on a quiet street, preferably with no noise or danger from cars, wild animals or other distractions. One must also walk at least a half hour solidly, and preferably for closer to an hour without many distractions. Having a dog to walk can be helpful in this regard, providing the dog is well-behaved.
42.
THE PSYCHOLOGY OF INDIVIDUAL MINERALS

Peter, age 23, had been a bright, emotionally sensitive, angry child and somewhat clumsy and foggy-minded. In spite of a good home life, at 15 he began using marijuana. At 17, he began using cocaine. He never became completely debilitated by the drugs, but was unable to go to college or hold a job. His first hair analysis showed a zinc level of 10 mg%. This is associated with copper toxicity, emotional instability and often other emotional problems. His oxidation rate was slow, with sympathetic dominance. This is associated with depression, low energy and a desire to fit in and try hard to be like others. This can be a motivation for drug use.

Peter’s parents worked hard to keep him on a nutritional balancing program. He made slow, steady progress over the past four years. His zinc level is now 13 mg% and his oxidation rate is faster. He has stopped all drugs, is living on his own, and getting straight As in college.

This chapter is an introduction to the ways that individual minerals can affect the mind, personality and behavior. Dr. Eck was astonished to find that specific minerals, when high or low in the hair tissue, were associated with specific emotions and behaviors. He researched the subject in the medical literature and found more evidence of its veracity. This subject involves several levels of hair analysis interpretation, including:

- How minerals affect the brain to contribute to mental and emotional symptoms.
- ‘Personality types’ related to having too little or too much of a mineral.
- Anthropomorphic aspects of minerals. This is the concept that the physical qualities of a mineral may influence a living being. For example, calcium is a hard and stable mineral. When elevated in the hair tissue, it appears to impart some of these qualities to the person.
- Combination effects of having high and low levels of a dozen or more minerals acting at the same time upon the nervous system.

GENERAL THEMES

Certain themes run through this chapter. For example, the heavier minerals are generally less beneficial, while the lighter ones are associated with more joy and happiness. Also, the alkaline minerals tend to relax the body, while the acid-forming minerals are more energizing and irritating, at times. Also, the male elements tend to dull the mind and perhaps relax the body. The female elements tend to excite the mind and the body.

For reference purposes, basic scientific information about each mineral is contained in Chapters 14 through 18, and in the Mineral Reference Guide in Appendix II.
THE MACROMINERALS

CALCIUM. Qualities. Calcium is a hard, chalk-like, very alkaline-forming, powerful, structural mineral. It is used in concrete, for example, to provide stability and compressive strength. It is an electrical insulating material and also insulates or buffers the nerves of the body against stress. Calcium is also used in cement because it mixes well with many other minerals.

Psychological qualities. Calcium is tough, stable, structural, protective, dull intellectually, and can be defensive - like a concrete bunker or bomb shelter. When balanced with magnesium and zinc, it is calming and relaxing. Without magnesium or another solvent, however, it can become very defensive and tough. If I were to assign an animal to each mineral, for calcium I would perhaps think of a bull - tough, strong, defensive and intellectually dull.

Symptoms. High hair calcium = biounavailable. It cakes up into hard compounds. One becomes hardened, rigid, defensive, hunkered down as though living in a concrete bunker, tired, apathetic, depressed, ‘heavy’ or serious, and generally emotionally suppressed or repressed; Low calcium = unstable, hyper-reactive to stress, irritable, uptight, ready to fight or run, aggressive or anxious.

Personality. Those who obtained a lot of high-quality and bioavailable calcium as babies and children tend to grow up more stable, shorter in stature, stocky and in good general health. They likely remained in faster oxidation for a longer time and have better tissue calcium reserves or perhaps a better ability to absorb calcium.

MAGNESIUM. Qualities. Magnesium is a very strong, lightweight, alkaline-forming, flexible, metallic element. Racing bicycles are often made of magnesium for its flexible strength and light weight. Magnesium is an excellent electrical conductor, and in the body is an essential component of thousands of enzymes. It is a close partner or synergist with calcium. Bioavailable magnesium helps keep calcium active and soft.

Psychological qualities. Magnesium is bright and shining, flexible yet very strong, and not brittle at all. In fact, it is flowing or helps one ‘go with the flow’ in a healthy way. Think of a gazelle.

Symptoms. High magnesium=biounavailable. One becomes weakened, tired, lethargic and depressed. A calcium shell starts building up; Low magnesium=weakened, irritable, high strung and belligerent. These symptoms are similar to calcium, except they may be due to enzymatic imbalances, rather than structural problems. This is somewhat complex, but psychological symptoms can be due to both types of imbalances. Dr. Eck found that low tissue magnesium is associated with belligerence. This quality is slightly different than aggressiveness, a quality of low calcium. Belligerence is more of a feisty nature and not as fierce, rigid or as aggressive as a low calcium.

Personality. Magnesium-dominant people are light, bright, cheerful, happy, and they shine, somewhat like the lightweight metal. This quality is rare, however, in Western societies because magnesium is low in most diets. It may be more common among some primitive tribes that eat a far healthier diet.

SODIUM. Qualities. Sodium is a lightweight, shiny, unstable, extremely alkaline-forming metallic element. In solution, it is a great solvent and, as a result, sodium compounds, including salts, are used in industry as solvents for everything imaginable. In the body, sodium is closely tied to aldosterone levels and the adrenal glands. Dr. Eck called sodium the volatility
element. Sodium dissolves most other elements, so one can say it causes change. It is the main change agent of the oxidation rate in our experience. It changes first and the other minerals follow.

**Psychological qualities.** Sodium is a solubilizing or dissolving element in a person’s life. Like magnesium, it is energetic and bright, but it can be aggressive and destructive in excess. When deficient, it is tired and burned out. Think of a fox, wolf or other volatile, but graceful mammal.

**Symptoms.** High hair sodium=volatile, changeable, active, positive, moving up in life, irritable, higher energy and aggressive when in excess; Low sodium=tired, depressed, exhausted, apathetic, burned out, negative, and if extreme, despairing and suicidal.

**Personality.** Sodium gives the personality a lightness, fullness and gentleness that is lovely, based on strong adrenal energy coupled with a balanced body chemistry. Such people are rare today. This is due to so widespread adrenal problems and, in part, due to the limited bioavailability of most sources of sodium on earth. Sodium in salt is not very bioavailable. Sea salt is better, but still not good. Other food sources include celery and some other vegetables.

**POTASSIUM. Qualities.** Potassium is a soft, rather unstable metal, an excellent electrical conductor, and quite alkaline-forming. In the body it is intimately involved with the thyroid gland, and regulates the heart and blood in many subtle ways. It also has to do with adrenal activity, specifically with glucocorticoid or cortisol activity. This is more of a long-term adrenal hormone that raises blood sugar longer term than adrenaline or aldosterone, which are more associated with sodium.

**Psychological qualities.** Potassium is soft, solubilizing, unstable and associated with making an effort and ‘holding on tight’. Dr. Eck called it the follow through mineral, which means a person who continues on with a project, for example. Potassium is also a change agent of the oxidation type. It rises in response to stress, and it rises in relation to sodium when a change of oxidation rate is ready to occur, or perhaps when death is immanent. Think again of a wolf, fox or cheetah.

**Symptoms.** High hair potassium=volatile, out of control, excess thyroid effects, a higher blood sugar level and stressed; Low potassium=tired but pushing oneself, perhaps depressed and exhausted, and unbalanced and often low blood sugar. Potassium, in adequate quantities, makes one feel good about oneself. This is one reason why people who use cortisone and other steroids ‘feel no pain’. Low potassium is also an indicator for a lifestyle pattern called sympathetic dominance. This indicates a person is pushing himself, spending too much time in a fight-or-flight state when the body is actually exhausted and cannot keep up the effort very well. One is usually tense, angry and fearful underneath a frenetic working pace or tendency to worry.

**Personality.** Potassium in sufficient quantity and quality gives the personality a certain lightness and energy, similar to sodium. The person may be more emotional, however, and this is related to the thyroid. They may love the feeling of going rapidly and furiously. These individuals usually deplete their potassium reserves early in life and end up spending the rest of their lives in slow oxidation. In fact, they often become stuck in sympathetic dominance pattern thereafter, until they either become ill and die, or learn to slow down. Just eating potassium in foods does not replenish it well in these people due to adrenal and thyroid dysfunctions.

**PHOSPHORUS. Qualities.** Phosphorus is a very hard, extremely unstable mineral that is highly acid-forming and very fiery. Phosphorus can be an antagonist of calcium. Calcium is
very stable and steady, while phosphorus is so unstable and energetic it must be stored underwater at room temperature or it will literally burst into flames. Phosphorus in the body is associated with good vitality and high energy. It is required for many energetic enzyme reactions, such as those that produce adenosine triphosphate or ATP.

**Psychological qualities.** Phosphorus is powerful, bright, fiery and vital. It is also associated with digestive fire or ‘gut energy’ and ‘gut intelligence’. However, without a balance with calcium, in particular, it is completely destructive of itself and everything around it. Think of a lion.

**Symptoms.** Higher phosphorus=vital, alive, fiery and perhaps indicates karmic release; Low phosphorus=weaker, lower vitality, less digestive and/or ‘gut level’ energy or brightness.

**Personality.** Fiery and strong. This is seen in some fast oxidizers and some who eat a lot of good quality meats, which are very high in a very bioavailable form of phosphorus. High phosphorus types are often also somewhat volatile and angry, perhaps because iron is found with phosphorus in most foods, and iron is associated with anger and rage.

**SULFUR. Qualities.** Sulfur is a soft, yellowish, powdery, acid-forming, very common mineral used in gunpowder and commonly found in cleaning powders and in all chelating drugs and herbs because it cleans out toxic metals. In the body, sulfur is common and used as a conjoining or connecting agent in all connective tissues such as ligaments, tendons, arteries and veins. In this sense, it is a structural element in the body and in most plants as well. It also helps balance copper in the body. Sulfur is found widely in common foods, especially animal foods. In eggs, it helps nourish and nurture new life. The human placenta is also rich in sulfur, as it nourishes the fetus and keeps it clean. Keeping a developing fetus very pure is essential to avoid birth defects and other problems.

**Psychological qualities.** Sulfur is watery, nourishing, smart, connected and cleansing. Think of a house cat that purrs softly and cleans itself continually.

**Symptoms.** High available sulfur=cleaner energy and, at times, a less toxic personality; Low sulfur=more toxic and perhaps a less active person.

**Personality.** A sulfury personality is ‘clean as a whistle’ in the sense of squeaky clean energy and timing. Think of a boat hull that can move along without making waves. This is uncommon, but found in some people who live on a lot of cabbage, broccoli, cauliflower, eggs and some meats. It is more common in the Oriental nations than in Western countries.

**THE TRACE MINERALS**

**ZINC. Qualities.** Zinc is a soft, flexible, whitish metallic element. It is somewhat acid-forming, but fairly neutral in this regard. It is used very widely in industry as a coating on steel and other metals because zinc hardens and protects the metal underneath it from rusting and other damage. This process is called galvanizing because it requires a certain type of electric current to achieve the coating with zinc. Zinc also alloys or mixes well with other elements in metal-working. Zinc is found mainly in meats as it has to do with the animal world more than the vegetable world.

In the body, zinc is a primary sedative or anti-stress mineral that stabilizes and balances as well. It is needed particularly for men for sperm production and for the prostate gland. Also, according to Dr. Eck’s research, zinc nourishes the neocortex or ‘new brain’. This sits atop the old animal brain and literally ‘puts a lid on’ and calms the emotions.
Psychological qualities. Zinc is flexible at times, slightly stimulatory when needed, but basically calm and balancing. It helps create a strong and grounded foundation for future physical and mental development. It is also very wise and creative. It is a more new-age or recent ‘male’ mineral associated with flexible strength, compassion, and understanding. It is associated with higher thought and higher emotions such as love and wisdom. Think of a wise and strong animal, perhaps a whale or dolphin.

Symptoms. Higher zinc=calm, balanced, thoughtful, advanced male energy; Low zinc=emotionally and mentally unstable, disagreeable, too emotional, lower male qualities such as anger and violence. Dr. Eck also felt that too much zinc would make a person into a martyr. However, most martyrs today are religious extremists who are definitely not high-zinc types.

Personality. This is a Jesus type of man or woman who is reasoned, direct, caring, not fanatic in any way, calm under fire, wise and the protector of women and children. The zinc type of man or woman helps the coppery emotional people to become more balanced and sane.

COPPER. Qualities. Copper is a very soft, reddish, somewhat acid-forming, very malleable or easily shaped metal. It is an excellent electrical conductor and very plentiful on earth. It is quite toxic in high amounts. In the body, it is a conjoining or connecting mineral needed for all connective tissue. It is also stimulatory and helps produce the stimulatory neurotransmitters. It is closely tied in to the tuning faculty of the brain. Copper is the primary ‘female’ mineral, associated with estrogens and needed for fertility and pregnancy. The level rises during pregnancy, and causes pregnant animals to be fierce and deadly when threatened. Copper rises before the menstrual period, a time when women are more emotional and also more violent.

Psychological qualities. Copper is bright, creative, nurturing, and very ‘tuned in’ or intuitive when properly balanced with zinc. It is also soft, gentle and very malleable, meaning it accepts direction well, as do most women compared to men.

However, when not balanced with zinc and iron, it can be emotional, angry, confused, violent, often devious and underhanded. Its intuitive quality becomes confused as well, and its loving and caring quality become unstable. When out of balance with zinc, copper also tends to be superficial and vampire-like in the sexual arena, to ‘attract the boys’ with the goal being little more than to confuse and distract them for their selfish pleasure. It can also be flirty, suggestive and have low moral standards.

Copper can be ‘spiritual’ because it can enhance one’s ability to tune to different dimensions. Often, however, it is merely unbalanced and schizoid. One may just think one is spiritual because one may hear voices, channel entities and accomplish other tuning feats. Think of a female lion or other female, protective animal capable of ferocity when threatened.

Symptoms. High available copper=spacey, emotional, racing thoughts, detached or schizoid, emotional instability, mood swings, panic attacks, anxiety, bipolar and other mood disorders. When very high it is associated with epileptic seizures, violence, schizophrenia and other psychoses; High biounavailable copper=similar to the above, but perhaps with other symptoms such as weakness, depression and others associated with a low sodium/potassium ratio; Low available copper=less romantic, more physical concerning sex, often emotionally shut down and a tendency to more heart attacks in part for this reason. In most cases, low copper is associated with fast oxidation symptoms such as irritability, belligerence and hardness.

Personality. The copper-dominant personality tends to be sensitive and creative, often with some reddish color in the hair. It is common in Western nations today in which people eat...
less meat and the food is somewhat lower in zinc. Common occupations for these people include designers, artists, writers, musicians, singers, psychic/intuitive types or engineers. Other qualities include a more childlike nature, young-looking, more gullible and loving but prone to fears, rage and hidden anger. They can be too emotional and have difficulty, at times, with daily life. Chapter 43 discusses a number of pathological copper personality types.

**IRON. Qualities.** Iron is a hard, blackish, inflexible, somewhat brittle, structural element that conducts electrical current well, though not as well as copper. It is used in industry as a structural metal and for millions of other purposes because it is hard, strong, steady, easily worked, and abundant. Think of a huge skyscraper made almost entirely of steel with iron reinforcing rods holding the concrete together. Iron is also very magnetic. In the body, it is somewhat acid-forming and used in energy production, to transport oxygen, and for protection of the cells against oxidant and other damage. In a toxic form, however, iron is a powerful oxidant, which means it is very damaging to body tissues. Iron accumulates in the amygdala, a very special area of the emotional or animal brain that some say is the seat of the emotions. Here iron can play havoc with the mind, contributing especially to feelings of rage and anger.

**Psychological qualities.** When properly balanced with zinc and copper, iron is effective, competent, intelligent enough for most situations, and able to follow through fairly well. Iron is somewhat tough, often attractive and charismatic, has more male than female qualities, not too bright, always angry to some degree but often able to hide this from others, emotionally cold and somewhat superficial, caring to a degree, often grounded but not firmly, and quite sexual. Think of a prancing show horse or another large, attractive, sexy animal that could harm others if left to its own devices.

When unbalanced, which usually means excessive, iron is rigid, angry, calculating, lying, devious, and even brutal, at times. When out of balance it also tends to be one-track and hard-driving. This makes one very focused, a positive trait. However, it is also very rigid, authoritarian, even brutal and underhanded, if needed, to reach the goal. Iron is a very magnetic mineral that guides others. It can attract the ladies and it gives direction or ego strength to human beings. Zinc and copper, in contrast, are less magnetic and more prone to taking direction from spiritual sources, such as in the phrase of Jesus “not my will, but thine be done”.

**Symptoms.** High iron=enraged, hard, brittle, inflamed; low iron=wishy-washy or ‘anemic’.

**The iron personality.** Iron personality types or ‘iron heads’ are very common in Western nations. They can be men or women. Most are capable, determined, a little macho, risk-takers, ambitious, creative in a limited sort of way, and often not brilliant but intelligent-sounding and with a decent brain. They often ‘talk a good line’ to get what they want. Integrity may be low, however. Sexually, they are often a little loose, though often loyal to a partner in many cases. They tend to be charismatic, seductive and sexually-oriented, even if they feign a lack of interest in this area. Their politics is often secretly authoritarian and socialist, corrupt and power-hungry. Their charisma and attractiveness can make them good politicians. They can read an audience and tell people what they want to hear. It may not be logical, but most people do not think clearly, so many are swayed. Many are parents. Mafia families often contain many iron types.

**MANGANESE. Qualities.** Manganese is a hard, dark-colored, acid-forming, tough metal found along with iron in the earth. It is used in industry to make iron into stainless steel, a metal that is much more flexible, tougher, stronger and rustproof. In the body, manganese is
needed for hundreds of enzymes involving the thyroid gland, anti-oxidants, tendon and ligament health, energy production in the cells and many other functions. Most people are low in bioavailable manganese. In some animals, manganese is required for maternal behavior.

**Psychological qualities.** Manganese is quiet, often somewhat irritated, detached and the behavior is often a little outside of the normal. In large quantities, it can be quite toxic and violent in extreme ways such as psychopathology and sociopathology. Think of a show horse, but not as healthy as the one above.

**Symptoms.** High hair manganese = detached, emotionally cool, somewhat irritable, schizoid, and somewhat ‘mad’; Low available manganese = tired, low thyroid and adrenals, slow oxidizer, depressed. Most people have a combination of these two, today. More extreme toxicity may cause a trance-like state, extreme irritability and erratic behavior. In particular, the manganese-toxic person may exhibit various anti-social behaviors, violent behavior and involvement in ‘stupid’ or impulsive crimes. These can occur in domestic violence situations, for example. Other symptoms of manganese overload are compulsive acts, emotional instability typified by easy laughter, crying and hallucinations, the way one behaves when drunk. Others include dementia and extrapyramidal brain signs such as impaired coordination and poor movement control.

‘Manganese madness’, a recognized syndrome. Manganese miners, welders, and others exposed to large quantities of manganese develop a form of psychosis or schizophrenia in which violent and anti-social behavior may occur. Symptoms are due, at least in part, to dopamine depletion. Manganese is involved in a number of kinase, hydrolase, decarboxylase, transferase and superoxide dismutases as a co-factor in these critical brain enzymes. Mad cow disease or bovine spongiform encephalitis (BSE) may be related to manganese imbalance due to the use of Phosmet, a pesticide that interferes with manganese as well.

**Manganese and psychopathic behavior.** Dr. Gottschalk’s studies strongly implicated manganese toxicity with violent crime. The studies were performed in the California State Prison system in the 1980s. Inmates had 2-7 times the amount of manganese in their hair tissue as controls in these double-blind studies. Dr. Paul Eck also felt manganese is associated with detachment and a form of schizophrenia.

**Personality.** Similar to the iron personality – hard, cold, irritated, authoritarian and power-hungry due to a lack of the higher consciousness elements such as zinc and copper.

**SILICON and SELENIUM. Qualities.** These two metals are shiny, smooth, light in color in most compounds such as sand and glass, and very alkaline-forming. They are widely used in industry in thousands of ways. In the body, silicon and selenium give the joint cartilages, hair, nails and skin their smooth, shiny texture as well as their strength and flexibility. Selenium is also protective and detoxifying in the body.

**Psychological qualities.** Silicon and selenium are happy, smooth, silky, soft yet strong and flexible, and needed for mental balance and mental development in a more advanced way. Think of a gazelle, a deer or other vibrant, beautiful, sleek and generally happy animal.

**Symptoms.** Higher selenium and silicon = joyful, light, spirituality-oriented, content; Low selenium and silicon = irritable, nervous, crabby or unhappy. Symptoms of low selenium and silicon are retarded development of certain higher centers of the brain, a common situation in most people today. Other mental and emotional symptoms include a cloudy or negative disposition, irritability and depression.
Selenium and silicon are also a future type of sexual person who is not primarily interested in sex for its own sake, but rather just as part of a loving relationship. **Personality.** They tend to be healthy, happy, full of light, easygoing and not too concerned about anything other than simple joy. This is rare because selenium, in particular, is not too bioavailable in most food today. A few people with blonde hair have higher levels of selenium and silicon, though most people are quite low in these minerals.

**LITHIUM. Qualities.** Lithium is a very lightweight, shiny metal, and the first of the elements in the periodic table to be a metal. It is an excellent conductor of electricity and very alkaline in its reactions. It is found in many foods and is abundant in plants, in particular. It is used widely in industry for lubricants, rubber, plastics, batteries, and in metal alloys because it combines well with other metals. Lithium is known to stabilize and protect the brain. As a brain protector, its use may be life-saving. In medicine, it is used in toxic doses to control some symptoms of manic-depressive or bipolar disorder. **Psychological qualities.** Lithium is very lightweight, happy, fun and joyous. Think of an elf or a fairy.  
**Symptoms.** High lithium=peaceful, full of light, happy and relaxed; Low lithium (which is common)=irritable, crabby or unhappy.  
**Personality.** The lithium personality is rare since most people are low in this element. The person is full of joy, and happy almost all the time.

**TOXIC METALS AND PERSONALITY**

**LEAD. Qualities.** Lead is an extremely heavy, dense, acid-forming, soft, dull grey, and very poisonous element. It is widely used in industry, unfortunately, because it is an excellent lubricant for machinery and it mixes well with other metals. Lead was discovered thousands of years ago. It was used to make water pipes in the Roman empire, for example, where it poisoned the people who drank the water. This probably contributed to the downfall of the empire. **Psychological qualities.** Lead is a dense, stupid, dull, older ‘male’ element. It can make one hyperactive, nasty, anti-social and even violent. Think of a rhinoceros, a rather dull, cantankerous and quite a deadly animal.  
**Symptoms.** In babies and children, symptoms may include ADD, ADHD, mental retardation, a nasty temperament, bad behavior, and many types of developmental delays. Lead in adults tends to cause violence, mental dullness, adult ADD and many other mental disorders. Lead is associated with a very ill and troubled person. **Personality.** This is not common today, fortunately. They are murderers and psychopaths. In olden times, there were many roaming the earth. Today, they are mostly seen on the evening television news when one commits a horrible crime. Otherwise, they are mainly seen in the horror movies about ax murderers and similar stories.

**MERCURY. Qualities.** Mercury is a very heavy, shiny, very acid-forming and extremely toxic metal that is liquid or flowing at room temperature. It conducts electricity extremely well and kills many germs on contact. It is also extremely poisonous for human beings. It is widely used in industry as a fungicide, in making paper, in gold mining, as a lubricant, for treating seeds to prevent root rot, in dental amalgams and elsewhere. It mixes well with other elements. In the body, it has a particular affinity for the brain and the kidneys.
Psychological qualities. These include flowing, quick thinking, unstable, emotional, quirky, whacky, kooky, ‘mad’ or unusual, devious, underhanded, and is an older ‘female’ type of element. Mercury toxicity caused the affliction of the ‘mad hatters’ described in Alice in Wonderland and in other books. Think of a mad or rabid dog.

Symptoms. Irritability, anxieties, shyness, fright, timidity, a strange look and personality, and ultimately violence and other problems.

Copper and mercury. Mercury and copper are related, both in terms of personality and in other ways. Both are ‘female’ elements, although copper is a lot more advanced. Both metals have an affinity for the brain, and both are excellent electrical conductors. Interestingly, both kill many germs, parasites and fungi. Their psychological symptoms are also somewhat similar.

Personality. Mercury is ‘all over the place’. Mercury personalities are often very intelligent, but not logical, and often dishonest and corrupt. Most are unhappy and devious in their effort to get what they secretly want. Many have a good sense of humor, but are quite serious underneath and cannot really laugh at themselves. They are usually uncentered, ungrounded, and often inconsistent and conflicted. They often have hidden agendas and often attempt to corrupt others to make themselves feel better about their own corruption.

CADMIUM. Qualities. Cadmium is a heavy, very hard, tough, very acid-forming and very toxic metal. Unfortunately, it is widely used in industry for plating because it protects other softer metals that are underneath it like copper, brass or aluminum. It is used in batteries for its electrical properties, and in yellow dyes, among other uses. In the body, it has a strong affinity for the adrenal glands, where it is a powerful stimulant. It also is extremely neurotoxic.

Cadmium is found in cigarette papers and tobacco, making cigarettes a potent source of this toxin. Marijuana and coffee contain some as well. Cadmium may give a false feeling of strength to those who smoke it or ingest it in some form. It appears to do this by powerfully stimulating the adrenals. Cadmium may allow the military and police to push themselves to take risks and do things they otherwise would be frightened to do. According to Dr. Eck, a possible mechanism for this is that cadmium sequesters copper, hiding the sensitive side of a person. The weak and brittle nature of cadmium, however, may be related to an increase in post-traumatic stress disorder in those who risk their lives on a daily basis such as police and the military.

Psychological qualities. Hard, tough in every way, inflexible, perhaps violent, and ‘macho’ (even the women). Cadmium is the lowest ‘male’ element today. It appears strong, but is really weak and brittle underneath. This is why Dr. Eck called it the pseudo-male element. It hardens the personality, as well as the arteries, kidneys and other tissues of the body. Think of a raging tiger who is ill underneath and just trying to protect itself.

Higher cadmium women. Cadmium toughens women and helps them survive for a while in a ‘man’s world’ such as certain scary or difficult jobs. It is somewhat illusory, however. They are sometimes called ‘tough cookies’. This is beneficial for their careers, though they often suffer physically with more heart disease, high blood pressure and cancer due to cadmium toxicity.

Symptoms. These include fatigue, irritability, a ‘hardened’ quality to the personality, and violence when extreme. Many children today are born with some cadmium toxicity from their mothers. The more toxic ones are often hard to manage, angry and aggressive. Disorders such as ADD, ADHD, autism, learning problems, infections, delayed development and aggression often involve cadmium toxicity to some degree. As cadmium is removed with a
nutritional balancing program, these problems often go away and the children can turn sweet, almost overnight.

**Personality.** The cadmium type of person is rare. Most are men who are violent, psychopathic, mentally unbalanced, unstable and murderous if provoked.

**ALUMINUM. Qualities.** Aluminum is a very lightweight, soft, shiny and toxic metal. Aluminum is neutral in terms of being acid or alkaline-reacting. It is used widely in structural material such as aircraft parts for its good strength, flexibility and light weight. In the body, it is a neurotoxin that mainly affects memory and cognition.

**Psychological qualities.** Mentally weak, ‘soft in the head’, a ‘light weight’ toxic metal.

**Symptoms.** Forgetfulness and if extreme, it is associated with all the dementias, Alzheimer’s disease, foggy thinking or brain fog, and symptoms of confusion, memory loss and at times delusions.

**Personality.** The aluminum personality type is basically a foggy-headed person who is not grounded or centered. These are common today because aluminum poisoning is so common. The person may be forgetful as well, and often spacey.

**CHART OF MINERAL QUALITIES**

The chart below is a summary of this chapter. The high and low levels refer mainly to the levels in the soft tissues of the body such as the hair.
THE EFFECTS OF MINERALS ON PERSONALITY

CALCIUM (Ca)
Key words: rigid, defensive, hard, cold, mental stability, structural material
Low Calcium: emotionally unstable, irritable, hyperactive, nervous, short-tempered, tense, unable to slow down, extroverted, type ‘A’
High Calcium: rigid, defensive, withdrawn, a calcium shell, sluggish, numbed, tired

MAGNESIUM (Mg)
Key Words: enzyme stability, strong, light weight metal, flowing quality, hard
Low Magnesium: high-strung, irritable, hyperactive, belligerent, type ‘A’
High magnesium: (biounavailable) defensive, withdrawn, sluggish, weak

SODIUM (Na)
Key Words: a powerful solvent, a change agent, initiative, volatility
Low Sodium: fatigued, depressed, unable to get started; very low is adrenal burnout
High Sodium: active, high energy, aggressive, volatile, a ‘starter’, acute stress

POTASSIUM (K)
Key Words: a potent solvent, heart and thyroid regulator
Low Potassium: fatigued, depressed, low blood sugar, thyroid problems
High Potassium: active, good stamina if ratio with sodium is normal. If the ratio with sodium is low, a high potassium indicates frustration, hostility, resentment, a seemingly no-win situation.

IRON (Fe)
Key Words: strength, rigid, brittle, a masculine mineral, ‘the iron man’
Low Iron: tired, weak, wishy-washy, ‘anemic’
High Iron: rigid, angry, aggressive, inflammatory, devious, corrupt

COPPER (Cu)
Key Words: emotional, intuitive, creative, a flirty feminine mineral
Low Copper: fast oxidizers are out of touch with the emotions, or less emotional
High Copper: childlike, hypersensitive, artistic, effeminate, sentimental, childish, fearful, ‘spacey’, depressed, moody, phobias, panic attacks, violent behavior, and when extreme causes hallucinations, schizophrenia and psychosis

ZINC (Zn)
Key Words: steadiness, balance, gentle strength, a more advanced ‘male’ element
Low Zinc: impotence, emotional instability, developmental and learning problems, copper-toxic, and with heavy metal toxicity
High Zinc: very rare today. Dr. Eck said they may be martyrs, but I haven’t seen this.
MANGANESE  
(Mn)  
Key Words: blood sugar regulator, ‘female’ element  
Low Manganese: fatigued, unstable blood sugar, possibly less maternal  
High Manganese: detached, unemotional; when extreme may be rigid, schizophrenic, angry and possibly violent  

CHROMIUM  
(Cr)  
Key Words: energy, blood sugar stabilizer  
Low Chromium: moody, tired, craving sweets  
High Chromium: very rare today  

SELENIUM (Se) & SILICON (Si)  
Key Words: flexible, smooth, spiritually-oriented  
Low Selenium: irritable, crabby, lack of advanced brain development  
High Selenium: rare today. It may be toxic in high doses.  

TOXIC METALS  

LEAD (Pb)  
Key Words: sluggish, dull, ‘dense’, can be violent  
High Lead: retarded, anemic, tremors, neuromuscular diseases, birth defects, violent, lowered intelligence  

MERCURY (Hg)  
Key Words: ‘kooky’, odd, an old female element, the ‘mad hatters’ of Alice in Wonderland  
High Mercury: emotional, crazy, unstable, fearful, hyperactive, hidden copper, ADD, autistic, hidden agendas, devious  

CADMIUM (Cd)  
Key Words: pseudo-masculine, tough, hardened, macho, ‘tough cookie’, a lower ‘male’ element, violence, possibly  
High Cadmium: rigid and false strength, ADD, hardened personality, emotionally shut down, insecure, hiding from fear; when extreme violent.  

ALUMINUM (Al)  
Key Words: ‘soft in the head’, a ‘lightweight’ toxic metal,  
High Aluminum: forgetful, childish behavior, all dementias, cognitive difficulties
43. PERSONALITY ASPECTS OF THE OXIDATION TYPES, MAJOR RATIOS AND OTHER PATTERNS

Marian had suffered for years with anger, anxiety, brain fog, confusion, depression, irritability, mind racing, a poor memory and trouble concentrating. She wrote: “I only slept with the use of sleep medication. I couldn’t safely drive the car, and it took hours just to balance a checkbook. The worst symptom was panic attacks. They appeared when I was stressed, or they might simply arise “out of nowhere”. Over the last four years I have been admitted to the ER numerous times with extremely high blood pressure, shortness of breath, chest tightness and pain. In the worst case, a panic attack was accompanied by uncontrolled shaking. I was repeatedly checked for a heart attack and stroke. They performed: EKGs, MRIs, X-rays, CAT scans and all of the other normal tests. Nothing was ever found, and I always felt like the “boy who cried wolf”. These situations were extremely frightening and they caused a profound sense of helplessness and embarrassment. I always knew that the medical professionals would access my record and think, “Oh God, here she comes again.”

After only 4 months on a nutritional balancing program, my copper level, which was “off the page” at 27 mg%, has returned to normal! I haven’t had ANY panic attacks in the last 2 months! Also, I no longer suffer from most of the symptoms listed above. You can’t imagine the mental, emotional and physical relief that I feel. I am finally able to understand the causes of my problems. I have made lifestyle changes, improved my diet, and continue to take the recommended supplements. I feel great, have lots of energy and am very happy.”

This chapter discusses the fascinating area of psychological and some spiritual aspects of the major ratios and patterns on a hair analysis. It can quickly give a practitioner a tremendous amount of personality-related information with which to further assist a client. This chapter also discusses interesting copper and four lows personality types that one sees in clinical practice.

THE OXIDATION TYPES AND PERSONALITY - FAST OXIDATION

The following are theoretical and general psychological aspects of the oxidation types. Although a hair mineral test may indicate fast oxidation or perhaps mild slow oxidation, the real oxidation rate may be hidden on the first few tests by other factors such as toxic metals that will skew the readings to some degree. Many people are what is called a slow oxidizer on crutches. This means that the fast or slow oxidizer pattern will shift on future hair tests when toxic metals and other imbalances that can act as crutches, are removed.
Healthy or mild fast oxidation. This is rare today among adults. These people tend to be forward-looking, positive, and energetic. They tend to live in the present, though they may think somewhat in the future as they are active, outgoing, and extroverted. Fast oxidizers often enjoy sports, social events, sex, thrills and excitement. They tend to make good salesmen, aggressive business people and politicians. They can be showy and superficial, however, and are often somewhat less mature than slow oxidizers. They often have few health concerns.

Starters. Dr. Eck felt that fast oxidizers are often ‘starters’, while slow oxidizers are better at finishing a job. Businesses, he felt, often do well with a fast oxidizer in charge and slow oxidizer workers to carry out orders and finish what the fast oxidizer starts.

Fast oxidizer children. Children in a healthy fast oxidation state are happy, outgoing and have lots of energy. Today this may be labeled as hyperactive or ADD, when it is just a reflection of their higher energy level and more physical and active body chemistries.

More yang and vatta-pitta. Fast oxidation is more yang in Chinese medical terms and more associated with the vatta-pitta personality in Ayurvedic medicine.

Unhealthy Patterns. As the oxidation rate becomes too fast or the sodium/potassium ratio decreases, symptoms may include irritability, anxiety, nervousness, fearfulness, anger expressed, aggressiveness and belligerence. Very fast oxidizers are also often high-strung, or ‘uptight’ and literally have extreme muscle tightness and muscle cramps. The faster the oxidation rate, generally, the more extreme the symptoms associated with it.

Extreme fast oxidizers have trouble slowing down and many times avoid their shortcomings and anxieties by running away from them. They can become anxiety-prone stress-seekers, neurotic, emotional and very difficult to live with for these reasons. As the pattern becomes more extreme, they may experience anxiety attacks, paranoia, and, when they feel threatened, are prone to extreme aggressive behavior like a cornered animal.

Unhealthy fast oxidizing children. These children are extremely stressed. They can fly off into crying and temper tantrums and most have difficulty focusing, concentrating and resting. They can be angry and aggressive with ADD or ADHD, while some are autistic. Many children become this way to a slight degree when they are overtired, such as at the end of a long day without a nap. The parents may say the child is ‘wound up’, meaning wound up in faster oxidation. A fast oxidizer’s response to stress and fatigue is to speed up even more.

If a child’s oxidation rate is too fast for an extended period, the child basically becomes stuck in the pattern because the sedative minerals such as calcium, magnesium and zinc become depleted and the child cannot return to a more balanced oxidation state on his own. In autistic children, the tendency for anxiety and irritability appears to be turned inward, and the child creates his own, more stable inner world away from the outer world. Fast oxidation is also common in some children with learning disorders. Usually, the child is very bright. The problem is concentrating or boredom in school.

Maturity and self-involvement. Fast oxidizers are more involved with themselves, as a rule, than with others. They are more oriented toward the world and less self-aware or aware of the feelings of others. This trait often causes conflicts in marriages, at work and elsewhere.

Addiction in fast oxidizers. Addiction occurs often, and may include alcohol and sexual addictions. Alcohol acts as a fuel and a sedative, and supplies acetates and other chemicals their bodies crave. Sex calms down some fast oxidizers by temporarily reducing the oxidation rate. As they begin to burn out, some fast oxidizers are attracted to stimulants such as caffeine, sugar or cocaine as ways to maintain themselves in their former high-energy pattern.
**Vampirism.** Fast oxidizers, particularly older children and adults, may become adept at stealing energy from others. This may sound odd, but is a real phenomenon that can keep some people in fast oxidation. The ability is learned early in childhood in many instances. The basic way it is done is to upset others. This can be done with intimidation or threats, odd behavior such as moodiness, lying, or even too much praise and flattery. When the other is upset, he or she gives up a certain energy to the fast oxidizer. This subject was discussed in the book and movie, *The Celestine Prophecy*, and is discussed at length by Mr. Roy Masters of the Foundation of Human Understanding. It is also discussed briefly in Chapter 22. Those who live with or work with fast oxidizers often do not understand what motivates the fast oxidizer to behave so emotionally, not realizing that in so doing, the fast oxidizer may actually steal energy from those around him or her. Nutritional balancing can make these people healthier, and may even help undo the vampire tendency in a few cases.

**Bullies.** Fast oxidizers are more often bullies and intimidators, while slow oxidizers are more often the victims of bullying.

**SLOW OXIDATION AND PERSONALITY**

**Healthy slow oxidation.** A mildly slow oxidation rate is associated with a quieter, gentler, more introverted and less energetic personality. Mild slow oxidizers are often pleasant to be around and can function quite well in society and at home. They also tend to be somewhat more emotionally mature and spiritually aware than fast oxidizers. They make good scientists, accountants, doctors, lawyers, housewives and can be good at any task that requires patience, tedium or plodding for sustained periods of time. Dr. Eck said they make better long distance runners, but not sprinters, who are often faster oxidizers.

**Unhealthy slow oxidizers** are those in whom either the oxidation rate is very slow, other ratios are imbalanced, or toxic metals or other nutrient deficiencies are pronounced. Very slow oxidizers are definitely in the exhaustion stage of stress and many are obviously or not so obviously ‘burned out’. Their energy level is much lower, even if they run around a lot. This impacts their personality in subtle ways. They are often spacey, copper toxic, ‘not all there’ and can be rather apathetic, out of touch, depressed and even despairing and suicidal as the oxidation rate slows further. Mentally, they are not as sharp and may become confused in their thinking.

Slow oxidizers can become severely depressed and negative. This is very common today. It may contribute to a common negative view of humanity in many of them, that “people are the problem on planet earth”. This is a refrain heard often among environmentalists and socialists, for example. Negativity and depression can give rise to unhealthy habits such as drug or alcohol use, but it is more to get rid of depression than to just get a thrill, as fast oxidizers may use them for. Some become very emotional due to copper imbalance, while others quietly endure, like battered women. They may lash out suddenly when the pressure is too much, like a cornered animal that prefers not to fight as its energy level is too low.

Excessive copper makes many slow oxidizers extremely analytical. Some become scholars and perpetual students, but they are often ‘up in the head’. Others are creative and artistic, but still often quite depressed underneath.

**Very slow oxidation in teens.** Teenagers are often exhausted from a lack of sleep, atrocious diets and quite a lot of stress from school pressures and other forces acting upon them. The level of suicide, drug use, sexual experimentation and other problems of teens is certainly
related, at least in part, to their imbalanced body chemistry that makes them feel odd, tired, foggy headed and depressed in many instances.

**Anxiety among slow oxidizers.** Slow oxidizers are often anxious, nervous and even paranoid for entirely different reasons than fast oxidizers. Slow oxidizers become anxious due to a low level of bioavailable sedative elements calcium and magnesium. Many benefit greatly from supplementation with calcium and magnesium. Also, they lack the energy to function well and this can be anxiety-producing. It also lends itself to feelings of inadequacy and low self-esteem at times. Their foggy or unclear thinking ability may also cause anxiety, at times.

**Yin attitudes.** Slow oxidizers are more likely to hold yin attitudes, which may include:

- *Victim thinking.* Examples include feeling sorry for oneself, blaming others for one’s problems and an unwillingness to forgive others completely and move on.
- *Often weak on principles and may back down in the face of tensions, pressures and attack.*
- *Not good at confronting, in general, preferring to keep the peace than discuss openly.*
- *Greater sentimentality, weepiness, and often some lack of mental clarity or brain fog.*

**Adrenal burnout.** This is common among slow oxidizers. It is a more severe degree of adrenal weakness that is associated with more fatigue, depression, anxiety and other problems.

**Copper Toxicity.** Copper tends to accumulate in a biounavailable form in the brains and other organs of most slow oxidizers. It tends to accentuate all the emotions and cause brain fog, spaciness, anxiety, depression, panic attacks and other emotional difficulties. Copper is discussed in more detail in Chapter 42.

**Control Tendencies.** Slow oxidizers often feel out of control because their energy is low and their coping ability diminished. Here are four mechanisms they use to compensate:

- *Dr. Eck felt that slow oxidizers try to control others or situations covertly or secretly.* They may use more deception and lying, for example, than fast oxidizers who are often more direct in their approach to life.
- *They may attempt to control life by escaping into their intellect with too much analysis or with vivid imaginations.*
- *They may become ‘spacey’ or foggy in the head in order to protect themselves from reality.*
- *They often accumulate calcium and form a calcium shell pattern to protect themselves.* This is like living behind a concrete wall.

**Lack of Grounding.** Some slow oxidizers are very ungrounded and may literally feel like they are floating through life rather than knowing who they are and where they are going. Grounding is important for them for this reason, and for their mental development as well. Grounding is literally their foundation for future development.

**Copper and spirituality.** Many high-copper people become interested in spirituality. However, much of this interest starts with their lack of comfort and control in the world. Many are drawn to spiritual books and compact disc programs that discuss how to regain or maintain control in some way. If this fails, they will often abandon one teacher and try a different one. While this experimenting is difficult, at least they are learning about various spiritual teachings, something most fast oxidizers are less able or willing to do. Becoming more spiritually oriented is a great benefit of slow oxidation for millions of people. One becomes more reflective and the quality of thought is less self-centered, often, than that of fast oxidizers.
Also, it is far easier for many slow oxidizers to sit and pray, or sit and meditate than it is for fast oxidizers. This may sound silly, but a tired body makes sitting quietly much easier than if one is full of energy and surging hormones. Women generally embody slow oxidizer thinking styles more than men, perhaps because women’s bodies have much more copper than do men’s bodies. The thinking is more about others and about society, and somewhat less about oneself.

**Rigidity and defensiveness.** This may occur in very slow oxidizers due to:

- High tissue calcium and magnesium levels.
- Low energy makes adaptation and change more difficult for some.
- Fear levels are much higher in some cases. This can cause a kind of inertia in the personality that manifests as rigidity and defensiveness.
- Poorer quality or slower thought processes may also appear as rigidity and defensiveness.

**Very extreme slow oxidation.** When the oxidation rate becomes very sluggish, a person may become sad, weepy, depressed and even despairing. Suicidal thoughts may occur due to very low energy levels and the buildup of copper and other toxic metals in the brain. This pattern is associated with total exhaustion, apathy and lack of motivation. Just getting up in the morning becomes a chore and life is not enjoyable at all. This situation is quite common, especially among groups such as teenage girls and young women. It helps account for higher suicide rates and self-destructive or odd behaviors.

**Political and societal ramifications.** Slow oxidizers are less able or inclined to want to take care of themselves. They often feel like victims and express this view politically as a leaning toward socialism and the idea of the government as the nanny and caretaker. They are therefore attracted to candidates that promise cradle-to-grave welfare. In my view, this is what ruins many societies, as the government also takes the people’s wealth and power, and becomes thoroughly corrupt in the process of providing many so-called benefits.

**Addiction in slow oxidizers.** Slow oxidizers are often tempted by stimulants because they are tired and depressed. They may crave and use sugar, caffeine, chocolate, coffee or strong teas like mate, and perhaps cocaine, ecstasy and methamphetamines to provide extra energy. However, some are also anxious and may gravitate to marijuana, for example, to calm down and forget how badly they often feel inside.

**MIXED OXIDATION AND PERSONALITY**

Personality patterns for mixed oxidizers are not as reliable because mixed oxidation is an unstable and usually a very temporary mineral pattern. Traits may be a mixture of fast and slow oxidation. One should assess whether the oxidation rate is closer to fast oxidation, called a fast mixed oxidizer, or closer to slow oxidation, which is called a slow mixed oxidizer. Also, look to other ratios and patterns to learn more about the personality in mixed oxidation situations.

**ADRENAL BURNOUT PATTERNS**

To understand mental and emotional imbalances, it can be very helpful to quickly identify hair mineral patterns that tend to indicate adrenal exhaustion or burnout. These tend to be associated with feelings of fatigue, and often with apathy, low libido, and depression. Other possible symptoms include despair, suicidal tendencies, anxiety and bipolar tendencies in some
cases. The likelihood of symptoms is greater if several of the following burnout patterns are present on one hair chart. I sometimes call the situation double burnout if two are present, or triple burnout if three are present. The patterns are:

1. Four lows pattern.
2. Sodium/potassium ratio below 2.
3. Sodium below 3 mg%.
4. Potassium level below 4 mg%.
5. Phosphorus level below 12 mg%.
6. Very slow oxidation rate.
7. Calcium level above 100 mg%.
8. Double low ratio pattern.
9. Step up pattern.
10. Very unbalanced Ca/Mg ratio (high or low)

THE MAJOR RATIOS AND PERSONALITY - THE SODIUM/POTASSIUM RATIO

The sodium/potassium ratio tells one about acute versus chronic stress in a person’s life, acute or chronic emotions, and perhaps the direction of change toward faster or slower oxidation.

A high sodium/potassium ratio = positivity, moving ahead, and when very high, acute stress and anger or other acute emotions. A ratio above about 2.5 indicates:

• A person who is responding to life with an active and more positive approach.
• This can indicate a person who is moving toward a happier life and faster oxidation because the sodium/potassium ratio may be a directional change indicator.
• A ratio above 6 or so usually indicates acute stress and an inflammatory situation in the body and often the mind. Emotions associated with this are anger or rage in some cases.
• It is a secondary indicator for sympathetic dominance. This is a person who pushes himself and tends to overuse the fight-or-flight nervous system. One with this pattern is often high-strung, irritable or anxious, at times.
• May be part of a step down or double high ratio pattern. These are associated with determination and ‘digging in one’s heels’.
• May be part of a hill pattern. This is a positive change and celebration indicator.

A low sodium/potassium ratio = chronic emotions of frustration, resentment and hostility, reduced awareness, lowered vitality, and a degree of giving up. A sodium/potassium ratio less than about 2:1 is associated with:

• ‘Beating one’s head against the wall instead of walking through the door’.
• Reduced awareness and feeling emotionally stuck to some degree.
• Lowered vitality. This can affect a person’s mental as well as physical health.
• It may be part of the bowl, step up and double low ratio patterns. In all these cases, the person is even more mentally or emotionally stuck.

Buried traumas. A sodium/potassium ratio less than 1 may be associated with quite severe buried emotional traumas. This is more likely if the ratio remains very low on repeated hair tests during a nutritional balancing program. Interestingly, those with a sodium/potassium ratio less than 1 may be “happier” than those with a mildly low ratio. As the ratio improves, many of them become more aware of their buried traumas and may begin to feel or express more of their resentment and hostile feelings. An unwillingness or inability to face a buried trauma
can be one reason that the ratio does not improve, as facing buried traumas can be frightening. In a few cases, clients quit the nutritional balancing program when the feelings begin to emerge, rather than face them. This can be avoided, at times, by warning clients with a sodium/potassium ratio less than about 1 that negative emotions or memories may arise as the ratio corrects. The feelings are not to be feared and will pass quickly in most cases.

**THE CALCIUM/MAGNESIUM RATIO**

This ratio can help assess defensiveness, especially in regard to lifestyle imbalances. **A calcium/magnesium ratio above 13.5 = lifestyle defensiveness:**

- *Defensiveness,* especially in regard to either a lifestyle factor or an attitude that is not working well and needs to change. This is also a *stalled transition pattern.* The lifestyle factor may be a job or maybe a relationship. The attitude is often anger, but may be anything.
- *Pretense or pretending everything is fine when it is not.*
- Part of a *double high ratio pattern.* This pattern tends to reinforce everything written about a high sodium/potassium ratio above – namely acute stress and anger.
- *As with all patterns, it is more likely or important when extreme or if it persists on several hair tests while one is following a nutritional balancing program.*
- *Mainly important on an initial test.* If the pattern appears only on a retest, it is usually not spiritual defensiveness. Usually, the body is simply eliminating some biounvailable or ‘metastatic’ calcium. This can push up the calcium level and skew the ratio temporarily.
- *May be part of a bowl pattern where a person feels very stuck.*
- *The spiritual defensiveness pattern was not part of Dr. Eck’s original work.*

**A calcium/magnesium ratio below about 5 = openness, perhaps.** However, this is only the case when the sodium/potassium ratio is greater than about 2.5.

**DOUBLE RATIO PATTERNS**

**Double high ratio pattern** (high Na/K and high Ca/Mg) = more acute stress and anger:

- *A determined effort pattern,* often with some rigidity or defensiveness as well.
- *It may be part of a step down pattern.* This is mainly a more extreme efforting or determination pattern in which a person is attempting to move ahead slowly.
- *Visually, it appears like a person is ‘up against a wall’ behind him and is slowly moving away from it.* Compare this to the step up pattern below.

**Double low ratio pattern or double inversion** (low Na/K and low Ca/Mg) = very chronic emotions and exhaustion. This pattern:

- *Accentuates low sodium/potassium ratio qualities of frustration, resentment and hostility.*
- *Loss of awareness, lowered vitality and poorer overall health.*
- *This is a stalled transition pattern.*
- *It can indicate one is’ beating one’s head against the wall even harder’. 
THE CALCIUM/POTASSIUM RATIO AND THE SODIUM/MAGNESIUM RATIO

These ratios are not used as much for personality interpretation of a hair analysis. Together, however, they are used as the components of the oxidation rate discussed above. However, an interesting aspect of these ratios is they may indicate voluntary versus involuntary stress reactions and earlier versus later types of stress responses:

**The sodium/magnesium ratio = an adrenal response to stress, often involuntary and usually an earlier stress response indicator.** This is an important sympathetic nervous system barometer. A high ratio is a more sympathetic state with symptoms such as acute stress, anger, volatility and irritability. A low ratio signifies more of an exhaustion situation. A rise in sodium in response to stress is the very earliest indicator of a stress response and is often involuntary.

**The calcium/potassium ratio = a thyroid response, often more voluntary and often a later stage stress indicator.** This ratio has more to do with voluntary efforting in various directions. This ratio is more related to the thyroid gland, which has more to do with voluntary effort in response to stress. The thyroid also usually follows the adrenals in terms of the timing of the stress response. Potassium levels tend to follow sodium levels during the stress response. Both ratios are also part of the step up and step down patterns described later in this chapter.

**PERSONALITY AND THE MAJOR MINERAL RATIOS AND PATTERNS**

**FAST OXIDATION**

<table>
<thead>
<tr>
<th>Key words:</th>
<th>Fun, outgoing, fight-or-flight mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild: (Ca/K 0.2-4)</td>
<td>Extroverted, outgoing, higher energy, emotionally expressive, tends to control overtly.</td>
</tr>
<tr>
<td>Extreme: (Ca/K below 0.2)</td>
<td>Anxious, irritable, thinking in the future, aggressive, paranoid, moody, vampire tendency, prone to energy swings, emotional, running away.</td>
</tr>
</tbody>
</table>

**SLOW OXIDATION**

<table>
<thead>
<tr>
<th>Key words:</th>
<th>Introverted, quiet, reserved, tired, apathetic and perhaps depressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild: (Ca/K 4-50)</td>
<td>Quiet, introverted, more plodding and methodical in some cases, possibly some fatigue.</td>
</tr>
<tr>
<td>Extreme: (Ca/K over 50)</td>
<td>Tired, apathetic, possible calcium shell or sympathetic dominance, withdrawn, depressed, thinking in the past, fearful, exhaustion stage of stress, suppressed, repressed, despair, may tend to control covertly.</td>
</tr>
</tbody>
</table>

**SODIUM/POTASSIUM RATIO OR Na/K**

<table>
<thead>
<tr>
<th>Key words:</th>
<th>Acute versus chronic emotions, vitality, a directional change indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>High: (above 6)</td>
<td>Angry, irritable, acute stress, inflamed, a secondary sympathetic dominance indicator.</td>
</tr>
<tr>
<td>Mildly low: (2-2.4)</td>
<td>Fatigued and perhaps somewhat frustrated, depressed, hostile, resentful, with chronic stress.</td>
</tr>
<tr>
<td>Low (below 2)</td>
<td>Frustrated, burned out, resentful, hostile, unable to let go, in a double-bind, a distorted sense of reality, perhaps a buried emotional trauma.</td>
</tr>
</tbody>
</table>
CALCIUM/MAGNESIUM RATIO OR Ca/Mg

<table>
<thead>
<tr>
<th>Key words:</th>
<th>Lifestyle or attitude defensiveness.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very high: (over 13.5)</td>
<td>Spiritual defensiveness. A need for change in an attitude such as anger or in a lifestyle aspect such as a job, relationship, location or other.</td>
</tr>
<tr>
<td>High: (9.5-13.4)</td>
<td>Exceeding one’s glucose tolerance, meaning overeating on carbohydrate foods such as sweets and starches.</td>
</tr>
<tr>
<td>Low: (less than 5)</td>
<td>Blood sugar abnormality, and perhaps emotional imbalance as well.</td>
</tr>
</tbody>
</table>

OTHER MINERAL PATTERNS AND PERSONALITY

**Sympathetic dominance** (low potassium) = **pushing oneself hard**. This almost always occurs in slow oxidizers. It may indicate:

- **Efforting, action-oriented, go-go people, or pushing oneself**, mentally or physically.
- **Chronic stress, usually due to trying very hard.**
- **Overuse of the sympathetic or fight-or-flight nervous system.**
- **A stalled transition** pattern from fast to slow oxidation in which the person acts as though one is in fast oxidation when, in fact, the body has moved into a slow oxidation state.
- **Usually found in intelligent, somewhat perfectionistic and often spiritually-oriented people.**
- **May occur in those who are trying to prove themselves or trying to fit into society, perhaps, when it is not appropriate for their energy level or some other reason.**
- **Living as though a tiger is continually chasing oneself.**
- **Perhaps somewhat out of touch with reality and lowered awareness to some degree.**
- **Those who do not relax enough.**
- **May combine with: a low sodium/potassium ratio indicating severe burnout, but still pushing oneself;** combined with a **calcium shell** indicates trying much too hard and in withdrawal; combined with a high calcium/magnesium ratio or **spiritual defensiveness pattern** indicates one who is stressed from within and without.

**Four high or three highs = stilted, guarded, a delicate chemistry or walking on stilts:**

- **A slow oxidizer under loads of stress.** The underlying situation is slow oxidation. This is the most important fact about this pattern, both physically and in terms of personality.
- **Always some toxic metal stress. and perhaps lifestyle stress and pushing oneself, as well.**
- **Fast, slow or mixed oxidation may be present, usually with mixed symptoms of both oxidation types.** There may be a combination of anxiety and depression at times, or a bipolar disorder situation, or others related to both oxidation types.
- **A stalled transition pattern** from fast to slow oxidation. It often resolves within a few months to slow oxidation. However, in some cases, three or four highs persists for years.
- **Stilted or guarded.** A few four highs individuals have a delicately balanced or precarious state of chemistry. An analogy is a person forced to walk on stilts. Indeed, one with the four highs pattern can be stilted, meaning guarded and not totally forthcoming. This may be a personality tendency or just a response to an unstable metabolic pattern. The person will
protect himself to avoid swings in the oxidation rate, as this can cause unpleasant alternating
feelings between depression (slow oxidation) and anxiety (faster oxidation).

- Somewhat grounded, unlike sympathetic dominance and perhaps other patterns.
- Some tendency to ‘crash land’ into slow oxidation as one drops out of four highs or three
  highs. Also some tendency to move into faster oxidation if the program is too intense. We
  therefore handle this pattern gently to hopefully cause a ‘safe landing’ into slow oxidation.

**Bowl Pattern** (high Ca/Mg and a low Na/K) = feeling stuck, in a double bind:

- Feeling stuck or unable to move forward. *A feeling of the world closing in, with few options.*
- Frustrated and defensive together. We can understand this pattern as the combination of a
  low sodium/potassium ratio (frustration, resentment and hostility) combined with an elevated
  calcium/magnesium ratio (defensiveness). When a person defends his or her frustration or
  resentment, he or she is less able to move ahead in life.
- The shape of this pattern on an ARL hair chart resembles one who cannot find his way out of
  a well or bowl. The steeper a bowl, the more extreme the feeling of being stuck in some way.
- A partial collapse into four lows. A bowl pattern even looks like a collapse in the middle.
- Can be further classified as a fast bowl or a slow bowl depending on the oxidation type, and
  a shallow bowl or a deep bowl. A slow bowl and/or a deeper bowl are more extreme.
- This pattern is more recent and was not part of Dr. Eck’s original research.

**Hill pattern** (low Ca/Mg and a high Na/K) = celebration or positive change:

- A celebration, positive movement or change taking place at deep levels of a person’s being.
- It may also be an ending of a negative pattern of movement or living in some way or other.
- A retest pattern only. Not reliable on initial hair tests unless a person has been on a healing
  regimen in some way.
- Visually, an opening, or an expansion of consciousness, as compared with a bowl, which
  looks closed in on the calibrated hair chart from ARL.
- The pattern combines a low calcium/magnesium ratio (less defensiveness) with an elevated
  sodium/potassium ratio (forward-looking, enhancing the oxidation rate). This pattern, like
  many others, may not be visible and may not be as reliable if the first four macromineral
  readings are all elevated. In this case, one must calculate the ratios to assess the pattern.
- This pattern was not part of Dr. Eck’s original research.

**Step up** (fast oxidation, low Ca/Mg, low Na/K) = pushing hard and getting nowhere:

- A fast oxidizer personality in all cases.
- Very stuck and not wanting to change to fix the problem.
- Digging in one’s heels in a resentful, frustrated, hostile or angry way.
- Resentment and hostility can lead to severe illness or death if the pattern does not change.
- Visually, it appears like a wall directly in front of the person (to the right on the hair chart).
- If all four numbers are high, the pattern may not be present.
- This pattern may not have been part of Dr. Eck’s original research.
**Step down** (slow oxidation, high Ca/Mg, high Na/K) = digging in one’s heels:

- Always a slow oxidizer personality type, often with sympathetic dominance present as well.
- Some defensiveness, stubbornness or ‘digging in one’s heels’.
- A determined effort with a person moving forward in spite of obstacles.
- Fatigue or exhaustion combined with determination to succeed. The steeper the step down pattern, the more extreme the emotional tendencies associated with it.
- If all four macrominerals are elevated, the pattern may not be present.
- This pattern was not part of Dr. Eck’s original research.

**Aggressiveness pattern** (low calcium):

- Often an extremely fast oxidizer with a calcium level less than about 14 mg%.
- More pronounced when magnesium and zinc are very low.
- Seen in children with ADHD, autism & other behavior, learning & developmental problems.
- Also possible in some fast oxidizing adults, usually men.

**Passive-aggressive pattern** (a calcium shell, along with four highs):

- A combination of a calcium shell (repressed or suppressed emotions) and a four highs pattern (extreme stress). This may cause occasional emotional outbursts.
- The pattern is more pronounced if the sodium/potassium ratio is low. This indicates more frustration, resentment and/or hostility.
- A type of bipolar tendency, and more commonly seen in women, so far.
- A newer pattern and not part of Dr. Eck’s original work.

**Workaholic pattern** (three highs or four highs, and a high sodium/potassium ratio):

- A slow oxidizer underneath (tired), very stressed (three or four highs), yet pushing hard and somewhat angry and aggressive (a high sodium/potassium ratio).
- Perhaps more common in middle-aged women, but requires more research.
- A recently discovered pattern that was not part of Dr. Eck’s original work.

**Overwhelming stress** (three lows) = collapsing into four lows:

- Three of the four macrominerals are low. Four variants are possible, depending upon which macromineral is high.
- Although it is a chronic stress pattern, the stress is somewhat more acute when the sodium is elevated, and somewhat more chronic when potassium is high.
- Stress is usually in part lifestyle-related, and not simply due to biochemical imbalances.
- A newer pattern and not part of Dr. Eck’s original work.

**Stress from within and without.** (Ca/Mg above 13.5 and potassium of 4 mg% or less) = extreme stress. This pattern combines spiritual defensiveness pattern(stress from without) and sympathetic dominance (stress from within). It is another high stress pattern and newer, so it was not part of Dr. Eck’s original work.
Trying hard to stay afloat. (elevated Ca/Mg and Na/K ratios, and potassium of 4 mg% or less). This pattern combines a double high ratio pattern with sympathetic dominance or pushing oneself hard. It is a more chronic stress pattern in which one is pushing hard to avoid going into four lows. It is a newer stress pattern that was not part of Dr. Eck’s original work.

Trying too hard (calcium above 170 mg% and potassium of 4 mg% or less). This pattern combines a calcium shell and sympathetic dominance. It indicates a person who is pushing so hard that one has gone into psychological withdrawal, often because the person is quite spiritually-minded and trying too hard to fit in with the crowd. It is another newer pattern.

COMBINATIONS OF PATTERNS

Many hair tests have more than one of the above patterns. Sometimes they reinforce each other, such as having two depression patterns or three burnout patterns at once. At other times, they may just show how complex we are mentally and psychologically. These combinations make interpretation on an emotional level quite complex at times. Describing all the more complex combinations would require a much more lengthy book.

Retracing brings up other patterns. As one retraces the past, often many personality patterns are revealed. This is disturbing to some people, though it is nothing to worry about. Most pass quickly. Some may also represent physical, rather than emotional retracing.

When retracing an emotional imbalance, do not assume the pattern relates to a present-time situation. For example, if an anger or resentment pattern surfaces on a retest hair analysis, one may indeed become aware of these feelings. However, the feelings often are from a time in the past, and not related to a present situation. Focusing on the anger and projecting it will only slow one’s progress. The pattern will often resolve on its own if one just follows the nutritional balancing program.

UNDERSTANDING THE PAST AND PREDICTING THE FUTURE

Many times, nutritional balancing can help explain how a person’s past behavior or lifestyle has resulted in present behavioral problems. At times, a hair analysis can also predict with fair accuracy future emotional and behavioral problems. Here are a few examples.

The past. Let us say a practitioner is interested in why a client developed depression. If the oxidation rate is very slow, the practitioner can guess with fair accuracy that the client has been tired for years, which can lead to depression. If, on the other hand, a spiritual defensive pattern is present, the practitioner can guess with fair accuracy that the person has been involved in perhaps a job, a relationship or holding on to an attitude that is not working well for the person. If the person has a calcium shell the practitioner can guess that this is a more chronic case of withdrawal from the world for some reason.

Predicting the future. If a hair analysis were performed on a prisoner who is to be released and it revealed high levels of lead, mercury, copper or cadmium, this would not be a good prognostic indicator. If, however, it showed a mild slow oxidation pattern with no toxic metals, it would be a far more positive indicator for a crime-free future. I believe that some day statistical analysis will support the validity of this type of testing.
Similarly, if a person was about to be released from a mental institution after being admitted for depression, and a hair analysis revealed a slow oxidation rate with extremely high copper, this would be a bad prognostic sign. It would be far better if the test indicated a mild slow oxidation pattern, a normal copper level and a normal or even elevated sodium/potassium ratio. If the person showed a step down pattern, this often means the person has more drive and determination than others, and would be a good indicator for future success. Other examples of how a hair analysis might predict behavioral health outcomes include:

- **Four highs pattern** may indicate a lot of stress, stubbornness and some underlying instability.
- **A four lows pattern** may indicate a negative attitude, cynicism and perhaps a tendency to be stuck or to give up. A positive quality, however, is such a person may be stoic and tend to keep on going, even to one’s detriment in terms of health.
- **Iron overload, either overt or hidden.** This may indicate a lot of anger and rage.
- **Elevated aluminum.** This is associated with impaired memory and cognition.
- **Elevated calcium/magnesium ratio.** This may indicate some defensiveness, or perhaps just indicates too many carbohydrates in the diet.
- **A low sodium/potassium ratio.** This tends to indicate chronic stress, fatigue, and often some negative emotions such as frustration, resentment and hostility.
- **A bowl** might predict a person will have difficulty due to feelings of having no options.
- **A step up pattern** tends to indicate a stubborn ego and perhaps a serious health condition.
- **A step down pattern** tends to predict a happier future because the person is tired, but willing to stubbornly move ahead with plans and activities.
- **A calcium shell** is hard to read. On one hand, it protects a sensitive person from stress and excessive emotions. However, it also indicates very low energy, depression, psychological withdrawal and often one who is not clearly in touch with reality.

**Hair analysis patterns of marital partners.** At first, many couples demonstrate very different hair analysis patterns. Over time, however, they often begin to converge. This makes sense, as they begin to eat alike and often to think alike as well.

If two people are contemplating marriage, having similar hair analysis metabolic types is often helpful. If the patterns are too different, one is probably compensating or adapting to the needs or wants of the other. For example, the fast oxidizer partner may supply the excitement, drive and ambition while the other provides stability and grounding. This may work out, but will often require more effort to resolve differences in temperament.

**Coming together is a stress, even if it is a positive one.** On one occasion, two of my single clients met and eventually married. I checked their hair tests as the friendship progressed. When they married and started living together, both developed a hill pattern for about six months. Then it went away. The marriage went well and the hill pattern may reflect this.

**COPPER PERSONALITY TYPES.** Copper is a very important element at this time in history. Most people have a copper imbalance to some degree. In addition to its obvious effects on the body and the brain, it takes part in certain common personality patterns. Four of the most common ones are 1) Spacey and emotional, 2) collapsed, depressed and very angry, 3) sympathetic dominant overachievers, & 4) severely emotionally and physically withdrawn:
1. SPACEY AND EMOTIONAL. This is a developmental stage of life that often occurs during the teens and college years, especially in young women.

**Whom:** Mainly young women between the ages of about 12 and 35, and in some young men of the ages mentioned above. After 35, they usually develop one of the other copper personalities if they have not dealt with or integrated their personalities well.

**Personality:** The young women and men are sweet, kind and gentle, as a rule, though they can be quite angry underneath. Some are in unhappy relationships, and none are too aware, centered or grounded. They are not fully mature, so this is a developmental stage of growth, particularly for women and some young men as well.

**Copper effects:** These are to 1) enhance the general emotional nature of the person and 2) cause a slight detachment from reality. This may be considered a mild tuning disorder or Level 3 mental disorder.

**Symptoms:** These often include menstrual difficulties in women, headaches, acne, rashes, blotchy skin when they tan, constipation, fatigue, depression, and a certain floaty, fluffy or spacey detachment from reality. If stress builds up too much, they may have suicidal thoughts, though they are not often as severe as the more withdrawn pattern below.

**What they need and how to help them:** Nutritional balancing is most helpful, but will not correct this imbalance completely. The person must also essentially grow out of the pattern, usually in the late twenties or thirties. Otherwise they become quite ill and depressed.

**Drug use:** Drugs are not a common part of this pattern because alcohol and drugs often make them feel even worse. Some cigarette and mild alcohol use are common.

2. COLLAPSED, DEPRESSED AND VERY ANGRY. This is often a continuation of the first pattern above that occurs as a person ages, if one does not mature sufficiently.

**Whom:** Women and some men over the age of about 25-35. A lot of stress is a factor.

**Personality:** Anger predominates in this pattern. It comes out in their language, how they treat children, and a curious selfish attitude that is really a compensation for feeling very depressed. All feel like victims to some degree. While all of us have had our traumas and disappointments, these people are unable to move past them for various reasons. The combination of a victim mentality plus emotionalism usually cripples a person’s emotional and spiritual development, unless they can be helped to move on and forgive everyone quickly.

**Copper effects:** The copper 1) enhances anger, 2) causes a type of deep depression in many of them and 3) impairs physical functioning to some degree.

**Symptoms:** Mostly they are tired and depressed. Many keep pushing, however, because that is how they are accustomed to functioning.

**What they need and how to help them:** They need a thorough healing program to help them move out of depression and self-pity. Attention to lifestyle and the Roy Masters meditation can help, but they must also want to change badly enough to let go of old attitudes. The key is giving up the victim mentality and being truly more spiritually oriented. This means forgiving everyone, especially parents. For women, it often means forgiving fathers and male partners.

**Drug use:** Anti-depressant drug use is very common. Alcohol and marijuana use are also common. These are used in order to feel better, rather than for thrills or excitement.

3. SYMPATHETIC DOMINANT OVERACHIEVERS. These people are often compensating for some kind of guilt feelings by overachieving and working or pushing hard.
Whom: Very common in both men and women who are mentally attuned and willful. They race around all day, work hard, think fast and may worry a lot as well.

Personality: Overachieving in some way. They may remind one of the “Energizer bunny” the way they go non-stop from morning till night. This leads to adrenal burnout and eventually severe illness in most cases, unless they can learn to slow down.

Copper effects: Copper causes very fast thinking or ‘spinning the wheels of the mind’.

Symptoms: Symptoms can become severe, including cancer, hypoglycemia, diabetes, exhaustion, depression and many others.

What they need and how to help them: They need to slow down a lot, rest the physical body, rebuild and balance their body chemistry and stop compensating for guilt in many cases. This takes a few years of nutritional balancing, ideally aided by coffee enemas and several years of sauna therapy. The sauna is excellent for them, as it inhibits the sympathetic nervous system.

Drug use: Used mainly to relax and slow down after a hard day’s work or play. Cocaine and marijuana appear to be the most popular ones.

4. SEVERE EMOTIONAL AND PHYSICAL WITHDRAWAL WITH A CALCIUM SHELL. This is a very chronic stress and depression pattern, combined with physical and biochemical imbalances.

Whom: Much more common in women than in men because women tend to be higher in copper to begin with, and perhaps are less able to release it than men. This syndrome is seen in some criminals, delinquents, welfare cases, homeless people, those in mental institutions and others with social problems.

Personality: Psychologically withdrawn. This means that they are ‘absent’ a lot, living in a world of their own making, unaware of the greater world, often out of touch with reality and with how unhappy they are, and without much of an idea of what to do about it.

Copper effects: Causes serious emotional and physical withdrawal, at times severe depression, suicidal tendencies in some cases, criminal tendencies in some cases and possibly psychotic tendencies such as schizophrenia or psychopathic behavior. The person is very copper poisoned, not just high in copper.

Symptoms: These vary, but always include terrible fatigue, acne or other skin problems, often suicidal depression, schizoid behavior, headaches, menstrual imbalances and others.

What they need and how to help them: These people are relatively easy to help with dietary changes, an improved lifestyle with much more rest, and a nutritional balancing program.

Drug use: Sedative drugs such as marijuana and heroine complement their personality tendencies. They may use methamphetamine and others to come out of a shell for a few hours.

THE FOUR LOWS PATTERN (OR FOUR LOW MACROMINERALS)

This important pattern is indicated by a calcium level less than 40 mg%, magnesium less than 6 mg%, sodium less than 25 mg%, and potassium less than 10 mg%. The hair must not be washed at the laboratory for accurate readings. Dr. Eck spent years trying to understand this pattern and design a corrective program. His discovery of the pattern and how to correct it is one of his most amazing insights and contribution to our world. Psychologically, four lows on an initial hair analysis is associated with:
• Often productive, hard-driving, serious individuals who can be hard on themselves and by extension, often are hard on others. Some are obsessive, compulsive and perfectionistic.
• If the pattern has gone on a while, which is often the case, a person feels very stuck in the mind, at some level, and often is in a process of giving up, becoming negative and cynical to some degree. In other words, some degree of a death wish is always present.
• Disconnected with the reality of spirit and therefore unable to relax and just enjoy life.
• Always pushing and driving with the ego mind, and getting nowhere. We use the analogy of the car stuck in the ditch, spinning the wheels and just getting in deeper.
• A need for intense rest and relaxation.
• Copper imbalance is always present, although the copper is usually hidden.
• Children who experience this pattern may be living with a parent who has the pattern, or who drives the child in a way that creates the pattern. Alternatively, the child may have a difficult karmic or other situation causing the pattern.
• The pattern is not important on a retest during a nutritional balancing program. It is often a retracing or a ‘resting death’ pattern that usually passes within a few months to a year. The best analogy is a dog who curls up in the corner to rest and relax in order to heal himself.

PSYCHOLOGICAL AND LIFESTYLE CAUSES OF FOUR LOWS

To help reverse a four lows pattern, it is helpful to know how and why a person may move into the pattern. The major ways are described below:

1. MAINLY A LIFESTYLE CAVE IN.
   Causes. Feeling overwhelmed, such as from a job loss, becoming ill or disabled, or some other stress such as a divorce. The person is also often toxic from unhealthy diets and other reasons. This adds to the problem, but is not the total cause. All the stress causes a “cave in”.
   Whom. This is the most common cause of four lows in America. It occurs in men, as much or more than in women. Most are hard-working, white-collar or blue-collar workers.
   How to help them: They can do well on a nutritional balancing program. The problem is getting them to stay with the program, as it requires more discipline, especially dietary discipline, than most are accustomed to.

2. MAINLY NUTRITIONAL DEPLETION.
   Causes. Collapse occurs due mainly to nutritional depletion. Many are vegetarians or have followed raw food or other extreme or deficient diets for years. Other types of stress add to the problem, but are not the major cause. Many are just getting older and their poor quality diets and impaired nutrition catches up to them, causing a four lows pattern.
   Whom. Affects men, women and children equally, mainly in Western societies where the diets are mainly refined foods, and the bodies are further weakened by chlorinated and fluoridated water, medical drugs, vaccines, air pollution and other insults to the bodies.
   What they need and how to help them. They absolutely require the correct nutrition, along with a few supplements, but not too many, and often they require much more rest.

3. MAINLY EMOTIONAL EXHAUSTION.
   Causes. A delicate nervous system along with stress causes extreme anxiety and finally a collapse. Copper imbalance is often prominent, contributing to anxiety, fears and emotionality.
Whom. Mainly women over 25 with delicate nervous systems. However, it could be anyone who cannot relax because they worry constantly, even though they may sleep a lot.

What they need and how to help them. In addition to nutritional balancing, these people need the Roy Masters meditation and relaxation methods such as breathing, gentle walking or other methods to calm the mind.

4. MAINLY MENTAL EXHAUSTION.
Causes. This occurs in some cases of multiple sclerosis, Lou Gherig’s disease and others. The person is mentally very intense, and not mentally balanced. Eventually the nervous system ‘crashes’ due to overwork, lack of rest, nutritional depletion and lack of mental control. This is very different from a lack of emotional control. Mental control has to do with resting the mind during the day instead of running it full bore all the time.

Whom. Relatively rare, and seen in cases of multiple sclerosis and perhaps other mercury toxicity syndromes.

What they need and how to help them. This pattern may be difficult to help with nutritional balancing, especially in long-standing cases. One must help the person to slow down mentally, which they do not like and/or have great difficulty with, thanks to mercury or other metal toxicity and perhaps mental problems. The Roy Masters meditation is most helpful, but they often do not like it because it raises awareness and can go around the conscious mind.

5. MAINLY SEXUAL FLUID LOSS.
Causes. Collapse is caused by overdoing on sexual activity.

Whom: Less common, but occurs in heterosexual and homosexual men and some women.

What they need and how to help them. They are easy to help with nutritional balancing if they will reduce their sexual activity.

6. MAINLY STRUNG OUT OR POISONED BY DRUGS.
Causes. Collapse is caused by a combination of factors. However, the main one is being ‘strung out’ on a drug. It is most often sugar or caffeine, but it could be due to marijuana, methamphetamines or others. This leads to extra stress, confused thinking and poor quality lifestyle decisions. After a few years of living this way, the nervous system is ‘fried’ or becomes overwhelmed, causing one to collapse into four lows.

Whom. Common among some groups of Americans and Europeans, in particular.

What they need and how to help them. They need a new lifestyle, a clean diet, no stimulants or drugs, and a four lows nutritional balancing program. Progress will be slow if the body is loaded with drugs. Sauna therapy is most helpful to remove some of them. Advanced cases are more difficult to heal due to the poisoning of the nervous system with drugs.

7. MAINLY OPPRESSED OR VICTIMIZED BY OTHERS.
Causes. Collapse is due to inner stress from fear, starvation, disease and working too hard to survive. This is aggravated by stress from outside the body such as frequent wars, political unrest and often outright oppression by vampire-like governments. This results in epidemics of serious illnesses such as AIDS that further weaken the body until it collapses, often at a young age. Most do not live long lives.

Whom. Very common in developing nations, but it is not seen much in Western capitalist societies that are more prosperous and respect the rights of individuals and women, in particular.
What they need and how to help them. They are quite easy to help if they could afford good food, and if they could rest, which most cannot as they are kept poor and almost in slavery by their corrupt governments.

8. HELPING ANOTHER TO RECOVER HIS OR HER HEALTH

Causes. A person decides to help another family member who has serious health issues. To accomplish this, the ‘helper’ must match the others’ patterns, so the child, usually, develops a four lows pattern because the parent has a four lows pattern. The child, however, is not that ill and may have few symptoms of illness.

Whom. This cause of four lows is seen in children of parents with four lows. The ‘helper’ who develops the pattern can be a baby, a child or a young adult.

What they need. A complete nutritional balancing program will greatly assist the ‘helper’ to assist his or her parent. Then the four lows pattern will generally disappear. It is best if both the parent and the child follow a nutritional balancing program.

For those interested, another set of personality styles is described in an article available at www.drlwilson.com. It is entitled Personality Types Related To The Seven Chakras.

MENTAL AND EMOTIONAL CONDITIONS AND HAIR ANALYSIS PATTERNS

ADD and ADHD – fast oxidation, toxic metals, or slow oxidation with copper imbalance, or a high or low sodium/potassium ratio.

Aggressiveness – very fast oxidation, high sodium/potassium ratio, low calcium and magnesium levels, four lows and perhaps sympathetic dominance.

Alcoholic tendency - low zinc, high copper, (alcohol depletes zinc, magnesium and B-complex vitamins), fast oxidizers may crave acetates in alcohol. Slow oxidizers may use alcohol to maintain their blood sugar levels and may crave sweet alcoholic beverages as well.

Alzheimer’s disease – high aluminum, copper, or mercury, slow oxidation and perhaps others.

Anger – fast oxidation, a high or low sodium/potassium ratio, high copper, zinc loss, cadmium, lead and other toxic metals.

Anxious – copper imbalance, fast oxidation, mercury or other toxic metals, low or biounavailable calcium and magnesium.

Apathetic – low energy patterns, usually a very slow oxidizer or fast oxidizer with a low sodium/potassium ratio, or high toxic metals.

Anorexia – high copper, low zinc, sympathetic dominance, or a low sodium/potassium ratio.

Awareness, reduced - a calcium shell, very slow oxidation, elevated copper, high toxic metals, a low sodium/potassium ratio or four lows.

Brain fog or foggy thinking – copper imbalance, often a very slow oxidizer, yeast infection in the brain, aluminum and other toxic metals. Brain fog can have a variety of causes.

Bipolar disorder – mixed oxidation, four highs, four lows, very slow oxidation, or fast oxidation with a low sodium/potassium ratio.

Compulsive - four lows, high sodium/potassium ratio, sympathetic dominance and, at times, fast oxidation.

Defensiveness – Ca/Mg ratio greater than 8 or 9, spiritual defensiveness pattern, high sodium/potassium ratio, low sodium/potassium ratio, see anger patterns.

Dementias – usually aluminum, mercury, other toxic metals, slow oxidation, or four lows.
Depression – very slow oxidation, low sodium/potassium ratio, all low energy patterns and possibly toxic metals such as nickel, cadmium and others.
Developmental delay (PDD and many other labels) – zinc deficiency, or most toxic metals.
Effeminate – excess copper in men, especially.
Emotional repression – calcium shell, low sodium/potassium ratio or low energy patterns.
Extreme lifestyle stress – a very high calcium/magnesium ratio, three low macrominerals, low sodium/potassium ratio, possibly a calcium shell.
Hidden and/or severe emotional trauma – many patterns, especially fast oxidation, a sodium/potassium ratio less than 1, or very slow oxidation with a calcium shell.
Irritable, nervous – see Anxious above.
Learning disorders – low zinc indicators, high copper indicators, many imbalances, low energy patterns, and most toxic metals.
Libido, low or low sex drive – slow oxidation, calcium shell, or other low energy patterns.
Macho (toughness) – fast oxidation, high cadmium, low zinc, possibly high lead or mercury, high iron and high manganese and, at times, four lows.
Manic – fast oxidation, high copper, toxic metals, especially mercury, or possibly a high sodium/potassium ratio.
Memory loss – see dementias.
Mood swings – see bipolar disorder.
Obsessive-compulsive disorder – many possibilities, fast oxidation with high copper, high copper alone, toxic metals such as aluminum, or occasionally part of brain fog (see above).
Paranoid – very fast oxidation, a low sodium/potassium ratio, and very slow oxidation.
Passive-Aggressive – three highs or four highs, along with a calcium shell and possibly a low sodium/potassium ratio.
Phobias – low zinc, high copper, low sodium/potassium ratio, toxic metals.
Pretenders or those who are trying to fit in where they really don’t belong – Spiritual defensiveness pattern (high Ca/Mg ratio), sympathetic dominance (low potassium), at times.
Psychosis – low zinc, high copper, lead, mercury or cadmium, low sodium/potassium ratio or possibly very fast or very slow oxidation.
Schizophrenia – copper imbalance, possibly involves mercury or other toxic metals.
Self-esteem, low – very slow oxidation rate, low sodium/potassium ratio, bowl pattern (high Ca/Mg with low Na/K).
Sexual dysfunctions - toxic metals, very slow oxidation, low zinc, high cadmium, high copper associated with impotence and erectile dysfunction.
Spacey or detached – copper imbalance, high aluminum, high mercury and others.
Stalled transitions, or a need for change – four highs, four lows, fast oxidation with a low sodium/potassium ratio, or sympathetic dominance.
Stress responses (from the best to the worst) – fast oxidation, fast with inversion, four highs, slow oxidation, sympathetic dominance, Grave’s disease, slow oxidation with a low sodium/potassium ratio, a bowl pattern and finally four lows.
Trying too hard – sympathetic dominance (low potassium), and possibly a calcium shell or spiritual defensiveness pattern (high calcium/magnesium ratio).
Vampirism – most common in fast oxidizers, and possibly in the other transition patterns – low sodium/potassium ratio, low potassium level, four lows and four highs.
Vitality, low – four lows, low phosphorus, low sodium/potassium ratio, or very slow oxidation.
Workaholic – often a calcium shell, with three highs or four highs, along with a high sodium/potassium ratio.

LIST OF IMPORTANT PATTERNS ON A HAIR MINERAL ANALYSIS

Adrenal Stress = sodium above about 100 mg%. High aldosterone causes high sodium in hair. Aggressiveness = calcium less than about 14 mg%, often fast oxidizer with low Mg and low Zn. Attempting To Overcome Overwhelming Stress = three lows and sympathetic dominance. Basic Burnout = sodium less than 5 mg%. Low aldosterone causes low sodium in the hair. Belligerence = magnesium less than about 3 mg%, often a fast oxidizer with low Mg and low Zn. Bioavailable calcium and magnesium = calcium above 100 mg%, magnesium above about 9 mg%. Calcium and magnesium beginning to precipitate out of the blood into the hair. Bowl Pattern = a high Ca/Mg ratio and a low Na/K ratio, often feeling emotionally stuck. Burned Out Sympathetic Dominant = low potassium and a low sodium/potassium ratio. Calcium Shell = calcium above 170 mg%, calcium is bioavailable and builds up in the hair. Calcium/potassium ratio = the thyroid ratio, involved in determining the oxidation rate. Double High Ratio or Double Inflammation = a high Ca/Mg ratio and a high Na/K ratio. Double Low Ratio or Double Inversion = a low Ca/Mg ratio and low Na/K ratio. Fast Oxidation = an alarm stage of stress, defined as a low calcium/potassium ratio and a high sodium/magnesium ratio. Four Lows = four low macrominerals, spinning one’s wheels in a ditch, or collapsed. High Sodium/potassium Ratio = high vitality ratio, acute stress, inflammation and anger. Hill Pattern = a low Ca/Mg ratio and a high Na/K ratio on a retest, celebration, positive change. Low Sodium/potassium Ratio = low vitality ratio, fatigue, resentment, hostility, frustration, carbohydrate intolerance, chronic infections, excessive tissue breakdown. Overwhelming Stress = three low macrominerals, four variants possible, almost a four lows. Passive-Aggressive = a calcium shell, with three or four highs, and possibly a low Na/K ratio. Severe Lifestyle or Attitude Stress = high calcium and a high Ca/Mg ratio. Severe or Double Burnout = a calcium shell and a low sodium/potassium ratio. Slow On Crutches = hidden pattern on a first test. The three amigos or other toxic metals such as copper, cadmium, arsenic or lead speed up the oxidation rate, making it look faster. Slow Oxidation = an exhaustion stage of stress in most cases, defined as a high calcium/potassium ratio and a high sodium/magnesium ratio. Sodium/magnesium Ratio = the adrenal ratio, involved in determining the oxidation rate. Step Down = slow oxidizer, high Ca/Mg, high Na/K, determined to move ahead slowly. Step Up = fast oxidizer, low Ca/Mg, low Na/K, very stuck, stalled transition, illness pattern. Stress From Within And Without = high Ca/Mg with low potassium, stress from many levels. Sympathetic Dominance = potassium of 4 mg% or less, pushing oneself mentally or physically. Three Highs/Four Highs = slow oxidizer under a lot of stress, a secondary alarm reaction. Tired or Temporary Fast Oxidizer = fast oxidizer with a low Na/K ratio, burned out fast. Trying Hard To Stay Afloat = high Ca/Mg and high Na/K ratio, & potassium of 4 mg% or less. Trying Too Hard = very high calcium with very low potassium, pushing oneself too hard. Vampire Fast Oxidizer = a person remains in fast oxidizer by stealing energy from others. Wasting One’s Time = a calcium shell, a high Ca/Mg ratio and a potassium of 4 mg% or less. Workaholic = three or four highs, and a high sodium/potassium ratio. A stressed slow oxidizer.
Chandra, age two and a half, was the size of a newborn. She was diagnosed with a chromosome defect, failure-to-thrive and a delayed development syndrome. She did not speak or walk, was lethargic, ate very little and had mongoloid-like features. She was completely unable to control her limbs and was prone to frequent seizures if she ate any fruit or juices. She was growing only one-fourth of an inch every six months. Her mother had tried many therapies all over the world to help her, with no success. Doctors doubted she would ever grow much or be able to function much at all.

Chandra's first hair analysis revealed lead, mercury, cadmium and aluminum toxicity. This was probably acquired from her mother in utero, as her mother had not been healthy during her pregnancy. Her zinc level was 7 mg%, less than half the ideal level. Zinc is an essential mineral for growth and development. Cadmium interferes with zinc metabolism. Chandra's sodium/potassium ratio was low, while phosphorus was high. Both of these imbalances are associated with excessive tissue breakdown.

After three months on a nutritional balancing program, Chandra was growing eight times faster, developed a robust appetite, was much more active and began to make sounds. The first retest, five months after the first one, revealed an improved zinc level and lower toxic metal levels. Chandra kept on her nutritional balancing program for a number of years.

At age 6, Chandra learned to communicate by pointing at letters on a paper keyboard. Her first words were, "It is so nice to speak with you after all these years". Soon afterwards, she shocked her mother by "speaking", using the keyboard, in old German and Persian. Her mother had to buy dictionaries to understand her. The child also demonstrated psychic abilities such as clairvoyance and clairaudience, though she still does not speak.

At age 11, Chandra wanted to go to school. When asked why, she answered, "to teach the other children". So off she went in a wheelchair. At age 14, Chandra asked to study heliotropism, a word her mother did not even know. The only local school that taught a course on it was Arizona State University. Arrangements were made and this very impaired-looking 14-year-old entered college. Chandra has continued to amaze everyone. She also does healing work. The dramatic response of children such as Chandra illustrates that even when a severe birth defect is present, body chemistry can be improved to allow these children to develop in a more normal way. I wonder if Chandra's disabilities have even helped her retain or develop other unusual abilities that are now coming forth.
This chapter discusses more specifics regarding the therapeutic aspect of nutritional balancing. This text is not a therapy manual, as this would require another large book.

MAJOR MODALITIES AND THERAPEUTIC PRINCIPLES

Nutritional balancing uses anumber of modalities that are all what may be called whole system modalities. This means they are so basic they affect every aspect of human functioning. When setting up a nutritional balancing program, do not overlook the: 1) lifestyle, 2) diet, 3) drinking water type and amount, 4) nutritional supplements, 5) detoxification procedures and 6) simple mental/emotional suggestions or modalities. Chapters 2 through 6 discuss the basic requirements for each of them. This chapter goes into more detail about several of them.

The main therapeutic principles in nutritional balancing that set it apart from other healing methods include 1) always balance the oxidation rate and the major ratios first, 2) always work with the teleology or healing intent of the body, and 3) always seek to improve overall vitality. Also, avoid all toxic substances, including most herbs and yin supplements. In addition, always use a combination of modalities, rather than just a diet, for example.

DR. ECK’S SUPPLEMENTATION SYSTEM

Dr. Eck figured out a supplementation method that is simple, yet addresses most important aspects of healing with just a few products. It includes:

1. A ‘metabolic pack’ designed specifically to balance the oxidation type and oxidation rate. More tablets are sometimes given when the rate is more unbalanced.
2. A glandular product to help balance the oxidation type and rate.
3. A product to balance the sodium/potassium ratio.
4. A digestive aid and liver support product.
5. Individual minerals such as calcium, magnesium, zinc, selenium, copper, and chromium. These are only given in a way that keeps the entire program in balance.
6. Specialty products. A few products may be suggested based on a person’s hair analysis and/or symptom picture. However, these are always recommended in a way that does not unbalance the body chemistry. Let us examine each of these in more detail:

1. METABOLIC PACKS. These are combination products designed to supply all the basic nutrients needed to balance one’s oxidation type and rate. They also include some nutrients that most people need today such as a little vitamin A, B, C, D, E and others. Three of them are available from Endomet Laboratories, one each for fast, fast with a low sodium/potassium ratio, and slow oxidizers. Most people receive a Metabolic Pack. Exceptions are those with a four lows patterns, and young children if they eat well and their oxidation rate is not too unbalanced.

2. FREEZE-DRIED GLANDULARS. Research supports the concept that animal-based glandular extracts that are essentially free of hormones can help rebuild their target organ or tissue. Several types exist, including those extracted with salt and those that are freeze-dried. Dr. Eck preferred the freeze-dried type of adrenal, thyroid, thymus, kidney and other glandulars. Most people receive a glandular product except in the following situations:
• **Hormone-dependent cancers.** Glandulars might aggravate these cancers, including possibly some breast, uterine, ovarian, cervical, prostate and testicular cancers. The ARL computerized recommendations may not take this into account.

• **Babies and small children.** They seem to do fine without glandular products, though they could be very helpful in some cases with children. Their taste and smell can be a problem.

• **Four lows pattern on a first test.** Dr. Eck found these individuals do not need or do well on glandulars, particular slow oxidizers.

3. **A PRODUCT TO BALANCE THE SODIUM/POTASSIUM RATIO.** Correcting this ratio is one of the most important, if not the most important action to take with most people. Zinc or Endopan are given to reduce the ratio, while Limcomin raises it. The more imbalanced the ratio, as a general rule, the more tablets of these are recommended.

4. **GB-3 OR ANOTHER DIGESTIVE AID.** This is one of the most important products for many people. The reasons for its use include:

• **Balancing copper and helping to remove toxic metals through the liver and colon.**

• **Correcting many cases of constipation.**

• **Enhancing liver detoxification and bile flow.**

• **Killing or weakening hundreds of pathogenic bacteria, viruses, fungi and even parasites.**

• **Digesting debris in the intestines.**

• **Normalizing the pH and digestive enzyme levels in the intestines.**

• **Weakening or killing some cancer cells is also possible with pancreatin.**

• **It is a more yang and more parasympathetic supplement than other digestive aids.**

Skipping the digestive aid, even in those who do not have digestive symptoms, is a common mistake some practitioners make. Most people have digestive problems today, even if they have no symptoms. Children may not be given this product as it smells and tastes bad.

Everyone should start gently with only about 1 tablet daily of GB-3. Too much at first can cause cramping and diarrhea because it digests debris and pathogens in the intestines. Occasionally, someone cannot take any at all for a while until the intestine heals. It is best to warn clients about this possibility. However, in a month or so, the product is usually tolerated better and the dosage can often be increased. Theoretically, the more of the GB-3 product a person can take without diarrhea, the more effective it will be, especially to rid the digestive tract of parasites and infections. Usually, a dosage of up to 3 per meal is sufficient.

In those that cannot take GB-3, usually due to some diarrhea, one can use a weaker product such as Betaine HCl with pepsin or a combination product such as Enz-aid by Endomet Labs. Much less recommended, though somewhat effective, are the vegetable grown enzymes such as protease, amylases and others. Their disadvantages include:

• **They are fungally-derived, which causes allergic reactions in some people.**

• **They are much more yin in Chinese medical terminology.**

• **They are not as physiologically close to human enzymes because they are fungally-derived.**

    Dietary Fiber Tablets are an excellent product that adds quality fiber to the diet. They are rarely needed, however, if one follows the dietary plan with plenty of cooked vegetables.
5. OTHER MINERAL SUPPLEMENTS. Most people require additional amounts of calcium, magnesium, zinc and perhaps copper, selenium, chromium and others due to:

- Low dietary intake of minerals.
- Poor absorption due to impaired digestion, for example, or unhealthful eating habits.
- Diets containing less usable forms of minerals such as the calcium and magnesium found in pasteurized or homogenized dairy products.
- Chemical imbalances in the body such as biounavailable calcium and magnesium.
- Greater needs in some cases, such as extra calcium and other minerals used to help prevent bone loss in older women.
- Possibly symptomatic reasons such as more calcium and magnesium in the evening to promote better rest and sleep.

6. OTHER PRODUCTS, DEPENDING ON THE SITUATION. These range from other basic vitamins and minerals to more exotic products in some instances.

SUPPLEMENT DETAILS

Supplementary minerals. The system of supplementation described below is only for use with a properly performed hair analysis, and not designed for other types of mineral tests:

- Calcium. Calcium can help balance the oxidation rate in both metabolic types. Supplements provide a somewhat bioavailable form of the mineral that everyone needs today. Most people are not ingesting enough bioavailable calcium due to pasteurization and homogenization of the dairy products, and low levels of green and other vegetables in the diet. This is why carrot juice and raw, certified dairy products are highly recommended. Calcium may also be used symptomatically for insomnia, anxieties, and occasionally for muscle tightness and cramps, irritability or other low-calcium syndromes.
- Magnesium. This mineral is also so deficient in the diets of most people that supplements are helpful for everyone. Dr. Eck discovered this by trial and error, but it has been confirmed medically in many cases. Supplements balance both metabolic types. Calcium and magnesium both powerfully affect the mineral balance in other complex ways. Stress and heavy exercise increase the need for magnesium. It may also be used symptomatically for the same reasons as calcium, as well as for its laxative properties, and perhaps others.
- Manganese. Raises sodium and helps to lower a high copper. Most diets are deficient in bioavailable manganese. A small amount is needed by most people. It is given even when the hair manganese level is high, since a high hair level usually indicates biounavailable manganese and does not mean that supplementation is not needed.
- Zinc. Lowers sodium, replaces copper in the liver, helps raise a low potassium, and helps stabilize the blood sugar level. Extra zinc is needed by most everyone today. Even more zinc may be given with cases of diabetes and perhaps in a few low-zinc syndromes such as skin diseases, eye problems, copper toxicity and perhaps a few others.
- Chromium. Raises sodium a little and helps stabilize blood sugar levels. Extra chromium may also be given symptomatically for diabetics and to help reduce sweet cravings. Most diets are low in chromium.
• **Copper.** Raises a low sodium/potassium ratio, may raise calcium, and, in excess, can lower potassium. Copper is rarely used symptomatically for gout and perhaps for infections because it can antagonize iron.

• **Iron.** Used very rarely as a supplement in nutritional balancing science. Iron raises sodium, may lower copper and can interfere with the absorption and utilization of other trace minerals in the body. In some biounavailable forms, it is extremely pro-inflammatory. Supplements may be needed for malnourished children, vegetarians and young women with very heavy periods who do not eat much meat and eggs. Most people, especially slow oxidizers, have too much biounavailable iron.

• **Selenium.** This is needed by everyone. It is critical as an anti-oxidant, for thyroid activity and liver detoxification. Extra selenium may be used to help remove lead, mercury, cadmium, nickel and many other toxins from the body.

• **Iodine or kelp.** Everyone needs supplemental iodine due to iodine antagonists in the environment. A few kelp capsules are recommended for everyone as a general mineral supplement, as well. Kelp is the only sea vegetable used because it also contains significant alginates and other compounds that bind toxic metals found in all products from the oceans and lakes. The use of kelp is explained in more depth in Chapter 4.

• **Molybdenum.** Reduces copper via a chelating mechanism, and may raise sodium a little. It is somewhat toxic, so Dr. Eck only used it rarely for symptoms of extreme copper toxicity.

• **Lithium orotate.** Protects the brain from toxic metals and can help with some cases of depression and manic states. It can also raise a low sodium/potassium ratio, in some cases.

• **Limcomin.** This is a combination formula Dr. Eck developed to raise the sodium/potassium ratio. It is used often and works well.

**Supplementary vitamins may include:**

• **Vitamin A.** This is a critical vitamin substance needed by the body that is present in a number of the formulas. It is not used much by itself for this reason. It is synergistic with zinc, and helps lower a high sodium. It is an anti-stress vitamin in this regard. It may be used in high doses for a week for any infection, especially those involving the skin or mucus membranes such as the bladder.

• **B1, B2, B3, B5, B6.** These are rarely used by themselves to help speed up a very slow oxidation rate or for severe depression.

• **Vitamin B3.** Helps raise sodium and lowers copper. Niacinamide also helps with liver detoxification. It is a methylating agent, which is calming and alters the adrenal response. It is found in ICMN (inositol, choline, methionine and niacinamide).

• **Vitamin B5.** Needed for the adrenal glands, so it tends to raise low hair sodium and potassium levels and helps reduce elevated copper.

• **Vitamin B6.** Raises sodium and magnesium, and can help lower an elevated and biounavailable copper. May be given in higher doses for a few days for premenstrual syndrome, or for a longer time for depression, anxiety and other copper imbalances.

• **Folic acid.** Helps the adrenals and may help lower an imbalanced copper.

• **Inositol and choline.** Found in the metabolic packs for fast oxidizers to help reduce an excessively fast oxidation rate. In excess, it can slow the elimination of toxic metals. This can be helpful in rare cases.

• **B-12 Sublingual.** Extra vitamin B12 may be helpful for strict vegetarians, and for anyone over 60 years of age or who suffers from digestive problems.
• **Vitamin C.** Raises sodium, needed for the adrenals, helps lower elevated calcium, copper and magnesium, and can help reduce toxic metals via a natural chelation method. More may be given symptomatically to lower an elevated copper or in very high amounts as an anti-viral agent in rare cases, as it is very effective as a drug-like substance for viral infections.

• **Vitamin D3.** Helps normalize calcium levels, relaxes the nervous system, assists with bone health and has many other beneficial effects on the body. Everyone needs more today, according to recent research, as the sun and other sources do not seem to be enough.

• **Vitamin E.** A potent anti-oxidant that also raises sodium and magnesium in the hair tissue, and is synergetic with many other vitamins. It may be given by itself to help circulation, raise a low blood pressure, for strokes and other cardiovascular events, or for other anti-oxidant needs. Most people could benefit from more of this interesting substance.

• **Vitamins K1, K2, and K3.** Extremely beneficial to regulate liver activity, detoxification, blood clotting and other functions. It is not usually supplemented as it is found in green vegetables. It could be used symptomatically in a few cases to enhance blood clotting or to reduce morning sickness, along with vitamin C.

• **Bioflavinoids such as rutin, hesperidin, quercitin and others.** These are powerful anti-inflammatory nutrients found in many foods, so they are not usually supplemented. They may be used symptomatically for some allergies, for capillary fragility and as an anti-inflammatory agents. Dr. Eck used them primarily for fast oxidizers.

• **Omega-3 fatty acids. (or EPA-DHA 300).** Almost everyone requires extra omega-3 fatty acids today due to the widespread use of vegetable oils in hundreds of products, and because livestock are fed corn instead of grass and other natural foods of these animals. Adults require about 3 tablets/day, while children need a little less. Babies need it very much today.

**Glandulars for the oxidation types.** Adrenal and thyroid glandulars help speed up a sluggish oxidation rate. Dr. Eck’s glandular for fast oxidizers contains thymus and a small amount of adrenal. In my experience, this is somewhat less important than the glandular products for slow oxidizers. Thus, I may omit a glandular for a fast oxidizer if I wish to reduce the size and cost of a supplement program. Thym-adren is most helpful if a person is weak or in an unstable physical or emotional condition.

**Kidney and other glandulars.** Kidney glandular is helpful to remove all toxic metals and chemicals, especially excessive lead, cadmium, mercury and nickel. These accumulate in the kidneys and tend to be eliminated through the kidneys more than the others. Kidney glandular may also help balance a very high or very low sodium/potassium ratio and may be helpful for high blood pressure and severe fatigue.

MCHC or microcrystalline hydroxyapatite crystals may help retard bone loss in post-menopausal women, or in anyone at risk for osteoporosis. It can be substituted for Paramin, the other major calcium and magnesium-containing product. However, one must then give extra magnesium, since MCHC is not rich in magnesium. Prostacine is a prostate formula that may help with benign prostatic hypertrophy, although it is often not needed with a nutritional balancing program. Ova-adren is a female glandular that may help with hot flashes. However, I reserve it if Thyro-complex or boron are not helpful. Ova-adren is high in copper and contains some slightly toxic herbs. Ova-adren may also be suggested for some cases of PMS. However, the PMS program usually works well without it.

**Other specialty products.** A variety of other products may be helpful in a few situations:
• **ICMN.** This is a formula containing inositol, choline, methionine and niacinamide. It is very helpful for liver detoxification, anxieties, high copper and other metal toxicity.

• **L-taurine.** This sulfur-containing amino acid is used as part of the four lows program, and may also be helpful for copper toxicity, anxieties, heart problems and metal toxicity.

• **Veg-easy.** Dried vegetable capsules are excellent for everyone, particularly those who do not eat enough steamed vegetables. It is better than “green food” powders, as the capsules preserve the vegetables, and a watery or sugary drink is not needed to take the product.

• **Acidophilus.** This can help some cases of diarrhea, gastric upset and intestinal infections with parasites. Another excellent probiotic product in the health food store is called Bio-K.

• **ATP-XTRA.** This is magnesium and malic acid, a combination that is helpful for certain kinds of pain, notably that found in fibromyalgia.

• **Calm Caps, melatonin and 5-hydroxy L-tryptophan or 5-HTP.** These help relax some people and may be used for insomnia, primarily.

• **Caprylic acid.** Along with garlic, this may reduce excessive yeast overgrowth, but is rarely necessary and should not be used unless absolutely required. The reasons are it is yin and adds cost and inconvenience. GB-3 is usually very effective for the same purpose.

• **Coenzyme Q-10.** This is helpful for anyone over the age of about 60, especially those with heart disease or low energy.

• **Colloidal silver.** This is a wide-spectrum anti-infection product that is quite harmless and helpful for many infections. Do not use it continuously, however, as it is slightly toxic.

• **Flaxseed or hempseed oils.** These are exceptional sources of some essential fatty acids, but are not used much because fish oil (EPA-DHA 300) is often a little better. However, they could be given if a person is allergic to fish oil or is a strict vegetarian.

• **Glucosamine and chondroitin (G/C 1000).** This is rarely used because the ingredients are found in natural foods, but can help rebuild cartilage faster in some cases of severe arthritis.

• **Potassium and magnesium aspartate (Spartan MK):** This form of potassium and magnesium will stop some cardiac arrhythmias, if the usual nutritional balancing program is not enough.

• **Magnesium glycinate.** This is a somewhat more costly magnesium supplement that usually does not produce diarrhea. This can allow a person to take more magnesium, which may assist sleep, relaxation, muscle cramps or tightness, and other symptoms related to either magnesium deficiency or bioavailability. It is rarely needed, however, and is very yin.

**Herbs.** Few herbs are used in nutritional balancing at this time. Chapter 4 explains why this is so, and lists herbs that are safer, as well as those to avoid. A few helpful ones include:

• **Alfalfa.** A very nourishing herb, though not needed in most cases.

• **Aloe vera.** This interesting plant is mainly useful for constipation, bowel disorders of all kinds, skin problems of many kinds, bites, wounds, and perhaps a few other applications.

• **Bayberry.** This is a very nourishing herb, though it is rarely needed.

• **Bee pollen.** Depending on the source of the pollen, this can be very nourishing and a decent source of many minerals and vitamins.

• **Black radish.** Very high in sulfur, and used to help lower copper and assist the liver.

• **Boneset and comfrey.** Excellent sources of bioavailable calcium.

• **Cayenne.** Helpful for bleeding, mainly. It is not recommended for eating in hot sauce due to its very yin quality.

• **Chamomile.** A very soothing, nourishing herb that helps many people relax and sleep better.
• **Chia seeds.** Extremely high in minerals and vitamins, and may be eaten in small quantities.
• **Coriander or cilantro.** Widely eaten in Mexico, this herb is not recommended for eating unless it is cooked.
• **Corn silk, horsetail and oat straw teas.** Good sources of selenium and silicon compounds.
• **Cumin, turmeric and curry powder.** These East Indian spices are healthy to use in cooking, but are not recommended as isolated supplements, as is popular today.
• **Cat’s claw and echinacea.** Rarely needed, but helpful for some infections.
• **Daikon.** Used as a food, at times, or a nourishing herb in small quantities.
• **Dandelion, milk thistle, beetroot and burdock.** Excellent herbs for the liver,
• **Dulse, Irish moss, nori, wakame, hijiki and other sea vegetables other than kelp.** These may be eaten occasionally. They are very rich sources of minerals, but are too high in mercury and other toxic metals to be eaten on a regular basis.
• **Eluthero.** This is one of the few Oriental herbs acceptable in nutritional balancing science.
• **Garlic capsules.** Garlic may be given to supply more selenium and germanium, to lower blood pressure, reduce yeast overgrowth or possibly to enhance a very low energy level.
• **Ginger.** A warming herb that may be eaten in small quantities.
• **Gingko biloba.** Rarely used to facilitate circulation in the head and brain, and may help hearing problems, ringing in the ears, memory loss or perhaps other head conditions.
• **Hawthorn berries.** Very safe for the heart and circulatory system, mainly.
• **Hops, valerian and passion flower.** Relaxing and nourishing herbs (hops is a grain, from which tea is made).
• **Juniper berries.** Used rarely for certain infections and other problems.
• **Lavender.** A very soothing herb that is most often inhaled.
• **Nettles.** Used, if needed, for severe allergies if nutritional balancing is not enough.
• **Peppermint, spearmint and wintergreen.** Nourishing, tasty herbs for teas. However, all are naturally high in aluminum and very yin, so limit the intake of them.
• **Prickly pear cactus.** Nourishing, but very yin, so limit intake of the fruit or extracts.
• **Psyllium seeds and husks.** Excellent fiber supplement if needed.
• **Pygium, pumpkin seed oil and saw palmetto.** Used in Prostacine and other prostate formulas.
• **Red clover.** Very nourishing herb traditionally used for cancer and other degenerative diseases. Not used often.
• **Rose hips.** Very good source of vitamin C, if the tea is not boiled.
• **Slippery elm.** Soothing herbal tea for the digestive tract. Not often needed and quite yin.
• **St. John’s wort.** Can help with mild depression.
• **Suma.** An excellent Brazilian herb used for cancer and other degenerative conditions.
• **Uva ursi.** Used in Renamide for kidney support.
• **Watercress.** May be eaten as a vegetable, preferably slightly cooked.
• **Wheat grass juice and other juiced grasses (ideally, fresh or frozen).** Extremely nourishing for cancer patients and others. Always safe as a tonic twice or three times weekly.
• **White willow.** Contains similar compounds as Aspirin but is less toxic and weaker. It is a symptomatic remedy and rarely needed.

**USING THE COMPUTER-GENERATED INTERPRETATION REPORTS**

This textbook does not include the specifics of nutritional balancing program design. I prefer that practitioners work with me and the advanced students to set up the programs.
ADDITIONS TO THE ARL SUPPLEMENT RECOMMENDATIONS

Although we do not recommend it, one can use the computer-generated supplement programs from ARL. Below are changes needed to these program, in our view. **All dosages are for adults, unless specifically indicated. Children need less, depending on their weight, primarily.**

PRODUCTS FOR EVERYONE

1. **Vitamin D3** – Most adults need 5000 iu of vitamin D3 daily, even if one lives in a sunny area and spends time out of doors each day. **Exceptions:** Omit if one eats 3-4 cans of sardines weekly (and do not eat more than this amount of sardines, due to mercury problems). Children above about age 5 also need some vitamin D, based on their age and weight. Also, vitamin D appears to be harmful in cases of sarcoidosis, a rare connective tissue disorder.

2. **Kelp** – Most everyone is deficient in iodine. While some doctors recommend a synthetic iodine product, we much prefer using about six 650 mg capsules of kelp daily, or about 1 tablespoon or 4000 mg of kelp granules. Kelp is a natural food that is inexpensive and an excellent source of iodine and many other trace minerals that everyone needs. The high levels of sodium alginate in the kelp helps bind and remove the mercury it contains. **Exceptions:** Avoid kelp if one has Grave’s disease or hyperthyroidism. Also, reduce it temporarily if it causes nervousness. Reduce thyroid hormone medication if taking kelp with it causes any anxiety or nervousness. We only recommend Nature’s Way, Endomet, Country Life or Frontier Herbs brands of kelp, as others may be toxic or are a different species.

3. **Omega-3 fatty acids** - Almost all adults need about 900-1000 mg of supplemental omega-3 fatty acids daily. Though some doctors disagree, we find fish oil the best source of EPA and DHA. Most people do not need the other fatty acids. **Exception:** Omit if one eats 3-4 cans of sardines each week. Tuna and salmon are also rich sources of omega-3 fatty acids, but contain too much mercury, so we do not recommend eating them at all.

4. **Endo-Veggie (from Endomet Labs) or other dried vegetable capsules** - These are good for many people, especially for those who do not eat 6-9 cups of cooked vegetables daily. **Exception:** We do not recommend this product for most people who have a four lows pattern on their hair mineral analysis because the product is somewhat stimulating.

5. **Zinc** - If the sodium/potassium ratio is greater than about 8, the ARL computer does not recommend enough zinc. **Increase zinc** to 1-1-2 if the sodium/potassium ratio is about 8 to 12, to 2-1-2 if the ratio is between about 12 and 30 and to 2-2-2 if the ratio is above 30.

6. **Trimethylglycine or TMG** - Men = 3000 mg daily and women = 1000 mg daily. **Exceptions:** Rarely, someone reacts to this supplement. Reduce the dose if needed.

7. **Drink 2 to 3 quarts daily of only spring water or carbon-only filtered tap water.**

8. **In Grave’s disease** - Do not give any Megapan, Endo-dren, Thyro-complex or kelp.

9. **Lecithin. (New for 2019).** Some people benefit from added lecithin. We prefer sunflower lecithin over soy lecithin. Capsules or granules are acceptable. The dosage varies from 1200 mg daily to 3600 mg daily and rarely a little more. The main indication is anxiety feelings. We do not base this recommendation on hair analysis readings at the present time.
CHANGES FOR ALL CHILDREN’S PROGRAMS

Children’s supplement programs are tricky to set up, in part because dosages need to vary depending on the child’s age and perhaps weight. The best idea is to work with one of our Approved Helpers. For children, we prefer using small amounts of the adult products. Also:

- All children over age 5 need 1 or 2 capsules of omega-3-rich oil and extra vitamin D3.
- Some children prefer more supplements than their weight would suggest (see Loading at www.drlwilson.com).
- Grind or crush the supplements and mix them with a little cream. If possible, give children choices as to how to take their supplements.
- Young children often need only three or four supplements, and only two doses daily.

PROGRAM CHANGES FOR SLOW OXIDIZER ADULTS

1. **Megapan.** Use this product for all slow oxidizers. The dosage is usually 2 tablets three times daily. **Exceptions:** Very important exceptions are to use only 1-1-1 or 2-1-0 Megapan tablets with **sympathetic dominance pattern** (potassium of 1-4 mg% and/or a high sodium/potassium ratio) or if extreme anxiety is present. Do not give Megapan if a person has Grave’s disease. Use less in the evening if Megapan interferes with rest and sleep.

2. **Substitute Thyro-complex (2-2-2 or 3-2-1) for Endo-dren if the potassium level is 4 mg% or less.** Those with a low potassium are usually ‘wound up’ or very active. Giving them Endo-dren (or 2-2-2 Megapan) can slow healing, in my experience.

PROGRAM CHANGES FOR FAST OXIDIZERS

1. **Omit Endo-C-1000.** Dr. Eck did not suggest giving high amounts of vitamin C to fast oxidizers, as they do not need it in most cases and it lowers their copper level.

PROGRAM CHANGES FOR FOUR LOWS PATTERN

Dr. Eck gave those with a four lows pattern only 1) Paramin (a combination of calcium and magnesium) at a dosage of 2-2-2 to 3-3-3, 2) GB-3, 1-1-1 or 2-2-2 and 3) zinc 1-1-2 to 2-2-2 if the sodium/potassium ratio is 2.5 or higher, or Limcomin 1-1-1 to 3-3-3 if the sodium/potassium ratio is low. We have added L-taurine at a dose of 3 grams daily.

If mercury, cadmium or nickel are elevated, we may also add Renamide 1-1-1 to 2-2-2 (a kidney support formula with herbs and glandular). This is to assist toxic metal removal through the kidneys. Sauna therapy, coffee enemas and the pushing down exercise are also very helpful.

SPECIAL CASES THAT MAY NOT BE IN THE COMPUTERIZED REPORT

- **Severe depression.** If needed, one may add more Megapan or vitamin B complex 20-40 mg, several times daily.
- **Sweet cravings.** Occasionally, extra chromium 200-400 mcg daily, helps with this craving.
• **Copper toxicity.** Currently, we do not find it necessary to add extra products, which was done formerly.

• **Diabetes.** Add zinc (22 mg) about 1-1-1 and chromium (200 mcg) about 1-1-1.

• **Mercury, cadmium, nickel, lead, and perhaps other toxic metals.** If severe, we may add Selenium (100 mcg of a food-grown selenium, preferably) 1-1-1, and/or Renamide or another kidney glandular formula at a dose of 1-1-1 or 2-2-2. We don’t use kidney herbs except those contained in Renamide from Endomet Labs.

• **Alcoholism.** If severe, we may consider adding extra zinc (22 mg) at a dose of about 1-1-1.

• **Seizures.** To control seizures until the cause can be eliminated, we may try adding lecithin 1200-3600 mg daily, taurine (500 mg) 2-2-2, vitamin B6 (50 mg) 2-2-2, or magnesium (133 mg) 1-1-1 or 2-2-2. Rarely, we give Renamide 1-1-1 or 2-2-2.

• **Hypertension.** A standard development program usually eliminates hypertension. For more rapid healing, one may add Renamide (kidney formula) 2-2-2 or more, garlic 2-2-2 or 3-3-3, extra Paramin 1-1-1 or more, and perhaps vitamin B6, up to 500 mg daily. Too many supplements are not helpful, however, because they make the body more yin.

• **Pregnancy.** Add 1 Megapan tablet if the woman is in a four lows pattern. In the third trimester of pregnancy, some women will need chelated iron (18-50 mg daily).

• **Insomnia.** If this persists, one can try adding a cup of strong chamomile tea, more Paramin at night, valerian, 5-HTP, hops, GABA, 1 zinc tablet or possibly melatonin.

**NOTE:** Beware of using other brands of supplements. In our experience, many are of inferior quality. For children, be sure to reduce the dosages based on weight, mainly.

**THERAPEUTIC QUESTIONS**

*Are there conditions for which a development program not appropriate?* Yes. This method is designed for development. It is not designed for:

• **Just acute illnesses such as colds, flu or other infections.** However, the principles apply even in these instances. The simple methods in Chapter 45 often work well.

• **Trauma care, which requires surgery and other medical interventions.**

• **Some advanced cases of cancer, heart disease and other conditions.** The reasons are that we may not have time to rebuild the body enough to sustain life. Also, people with advanced disease are less able to cook the food and do the procedures.

*What are the main reasons for failure with a development program?*

• **Not eating enough cooked vegetables is common.** Lack of variety in foods is also common.

• **Altering the supplement program.** This usually makes the program much less effective.

• **Combining this program with other programs.** An exception is that chiropractic care is good.

• **Self sabotage.** This is the same as the above, but occurs unconsciously, and is common.

• **Lack of rest or stress of some kind will interfere with the program.**

• **Failure to retest the hair often enough.** The program must follow the body’s biochemical changes in order to remain effective.
What is the success rate with a development program? This is a little tricky to quantify. The reasons are:

- *A development program works on the whole person first, rather than on symptoms first.* For example, brain activity may improve before one’s main physical symptoms improve.
- *A development program corrects latent health conditions, as discussed in Chapter 1.* These are generally unseen and unfelt, so one may not notice any obvious changes as they heal.
- *Retracing occurs.* As this happens, one can feel worse for a while, even though deep healing is occurring.

As a result, one’s primary symptom may not go away rapidly. This occasionally causes a client to think the program is not working, or is even making one worse. In our experience, *the program always improves one’s health, even if a major symptom is slow to improve.* If one’s main symptoms is slow to change, often other parameters of health are better. For this reason, we suggest that practitioners keep a record of all a client’s initial symptoms.

**Is there a difference between deep healing and just improving a person’s quality of life?** In some cases, the deepest healing is difficult. This may occur in a few cases when:

- *The person is very old, and one may not have time to reverse long-standing conditions.*
- *An illness is so severe that the vitality level may not be high enough for a full recovery.*
- *The person will not or cannot follow the entire program for some reason.*

**DETOXIFICATION PROCEDURE DETAILS – COFFEE ENEMAS**

**DISCLAIMER.** Check with a health professional if you are not sure you should use the following procedures. This information is for educational purposes only and is not intended as a diagnosis, prescription, treatment or cure for any physical or mental health condition.

Detoxification procedures were not part of Dr. Eck’s original recommendations. However, the ones we suggest, such as coffee enemas and using a heat lamp-powered sauna, are quite safe and powerful, in our experience. Each heals the body in about 20 different ways.

Coffee enemas significantly shorten the time required to detoxify the liver and other organs. In many difficult cases, a person simply will not progress much without them. The procedure is a *coffee implant or retention enema* because one retains the enema for at least 15 minutes to allow the coffee to be absorbed into the hemorrhoidal and portal veins.

The colon and liver are often the most damaged organs in present-day human beings. This is due to their diets, eating habits, stress, constipation, toxic exposures and the use of hundreds of drugs and over-the-counter products that impair the normal functioning of the large bowel and the liver. One to four coffee enemas each day along with the rest of a development program is the only answer we have found.

**History of the coffee enema.** Enemas are an ancient form of hydrotherapy described in books as old as the Biblical Dead Sea Scrolls. Until the past 30 years, enemas were routine procedures in hospitals. Today, patients are worse off during surgery, childbirth and during other procedures because enemas were discontinued in favor of the use of laxatives. Older
editions of *The Merck Manual*, an important physician’s reference, listed coffee enemas. Max Gerson, MD, author of *A Cancer Therapy - Results of 50 Cases*, used them with great success in his natural cancer and tuberculosis therapies. Dr. Gerson was a brilliant internist who worked in the early twentieth century. While we deeply respect the work of Dr. Gerson, we do not recommend the Gerson protocol for cancer. Experts we respect report that results with cancer are not quite as good with the Gerson approach as they are with more updated programs, including ours.

**Benefits.** Clients have told us “coffee enemas saved my life”. The benefits include:

- *Mechanical cleansing of the left side of the colon and perhaps the entire colon, depending on how much water is used.* This helps rid the colon of putrefying and fermenting fecal material that releases extremely toxic substances into the blood stream day after day.
- *Enhancing bile flow.* A patient was given a coffee enema after an endoscope had been inserted at the entrance of the common bile duct. The endoscope, a thin tube with a camera on the end, recorded an increase in bile flow when the enema was administered.
- *Alkalinizing the small intestine.* This is due to increased bile flow.
- *Reflex effects on all organs and systems of the body.* For details about this interesting effect, read the *Coffee Enema* article at www.drlwilson.com.
- *Enhancing digestion due to increased bile flow.*
- *Detoxification of the liver in a way that no other method can achieve, including diet or herbs.*
- *Coffee has an astringent action on the large bowel.* This may help clean its walls of debris and helps dislodge colonies of yeasts, parasites and other microorganisms.
- *A more yang procedure.* The more yang quality of the coffee enema helps balance the yin quality of most bodies today much better than other detoxification procedures such as baths.
- *A downward movement of energy.* This is a subtle benefit of coffee enemas. Its importance is explained more in the section below about the Pulling Down Exercise.

**How Often, How Long and When?**

- We suggest one to four coffee enemas daily. Those with cancer need two to four daily.
- In our experience, EVERYONE needs coffee enemas daily for at least 10-15 years.
- *The best time to take an enema is before a meal or two hours afterwards.* Otherwise, it may interfere with digestion and cause uncomfortable gas and bloating.
- Ideally, do a coffee enema after a sauna session.
- Two coffee enemas, back to back, is even more powerful.

**Cautions and contraindications:**

- *Doing coffee enemas daily requires a little practice to work out a comfortable routine.*
- *When done properly, coffee enemas do not cause habituation, constipation or dehydration.* In 39 years of practice, we have recommended them to at least 20,000 people and no one has reported any serious problems. (See below about hemorrhoids and fissures.)
- *One should not get much of a caffeine rush from a coffee enema.* It is not like drinking a strong cup of coffee. If you do get a coffee rush, use less coffee. Do not use decaffeinated coffee.
- *Enemas taken in the evening might with sleep.* However, at times they help sleep if symptoms of toxicity are keeping a person awake.
Those with anal or rectal fissures, or severe hemorrhoids often have difficulty with coffee enemas. Some of these individuals find the coffee enema very difficult to do at all. If mild hemorrhoids are present, coffee enemas can help heal them.

While enemas may seem uncomfortable, many clients report the procedure is so helpful they soon forget the inconvenience.

One may not have normal bowel movements when doing daily coffee enemas. This is normal and not a problem. You may want to do a quick plain water enema before the coffee retention enema to clean the colon if you have not had a bowel movement recently.

THE COFFEE ENEMA PROCEDURE

Step 1. Materials Needed:

• A 2-quart enema-douche bag or enema bucket, with a clamp on the hose. This is sold at drug stores or over the internet. The enema/douche bag combination is easier to use because you can close the top tightly.

• Coffee. Any brand of regular, non-instant and non-decaffeinated coffee is okay. An organically grown, dark roast coffee is a little better as it is more yang. For very fresh coffee, buy the beans and grind them yourself. Store all coffee in the freezer to preserve freshness. At first, use very little coffee for your enema in case you are very sensitive to caffeine.

• Water. Preferably use distilled water. However, you can use spring water or even RO water.

Step 2. Preparation of coffee – three methods. Pressure-cooking or boiling the coffee are best.

1. Pressure-cooking the coffee. Put half of the total amount of water that you will use for your enema (½ to 1 cup) into a pressure cooker. Add only ½ teaspoon of coffee when you first begin doing coffee enemas. If that works okay, then slowly increase the amount of coffee up to 2 tablespoons of coffee. The best kind of water is distilled or spring water.

   Turn on the pressure cooker. When the top starts to vibrate, cook it for only 14 seconds. You must have a timer that measures seconds with which to time the cooking or you will easily overcook the coffee.

   When 14 seconds have past, you must release the pressure quickly. On many pressure cookers, you can do this by tilting the vibrating top. On some pressure cookers, you have to run cool water over the cooker. This is not nearly as convenient as tilting the vibrating top. Now skip to the section below called Cooling The Coffee.

2. The Regular Boil Method. Place half of the total amount of water you will use for your enema (½ to 1 cup) into a saucepan. Then add the coffee as above – between ½ teaspoon to up to 2 tablespoons – and no more! Bring the coffee to a boil and then boil it for only 12 minutes. Then turn it off. Now skip to the section below called Cooling The Coffee.

3. The Coffeemaker Method. This method produces a weaker coffee. Once again, put half the total amount of water you will use for the enema into the coffeemaker. Then turn on the Coffeemaker and it automatically makes the coffee.

   Cooling Down The Coffee. Now add another ½ to 1 cup of cool or room temperature to the coffee liquid. This will cool down the coffee and it will increase the volume of water to
between 1 and 2 cups of water. *The water temperature must be brought down to about body temperature.* To test the temperature, put your finger in the water. It should be comfortably warm, but not burning hot. *The water must be the right temperature or the enema will be difficult to retain.*

If the mixture is still too hot, pour it back and forth through the air into a different container to cool it. Another way to cool it is to add one or two ice cubes to the boiled coffee.

**Remove the coffee grounds.** Pour coffee through a fine strainer or through a coffee filter paper into a clean enema bucket or bag, and close the top of the bag. The enema is now ready.

**Step 3. Preparing to take the enema:**
- **If possible, have a bowel movement before doing the enema.** Otherwise you may have difficulty retaining the enema. To have a bowel movement, a simple method is to drink several large glasses of warm or even hot spring or distilled water or mild tea. You may also have something to eat such as some almond butter. For some reason, this often works well.
  
  If you have not had a bowel movement, you could take a plain water enema first, before the coffee enema. This will usually clean out the bowel quickly. A bidet toilet attachment can also be used as a laxative by just leaving it on for a minute or so at high pressure.
- **Set up the enema bag.** Be sure that: 1) the plastic hose is fastened well onto the enema bag, 2) the clamp is on the hose and working properly, and 3) the thin enema tip is securely attached to the other end of the plastic hose.
- **Remove air from the enema tube.** Place the enema tip in the sink. Grasp, but do not close the clamp on the hose. Hold the enema bag up above the tip. When water begins to flow out of the tube into the sink, close the clamp. This expels any air in the tube.
- **Lubricate the enema tip with a little soap or oil.** *(Too much lubrication may cause the tip to fall out of the rectum).* You are now ready to take the enema.

**Step 4. Taking the enema:**
- **Position.** Most people prefer lying on their backs, on a towel or rug, perhaps, on the bathroom floor or even in a bathtub. With some practice, you may feel confident putting a towel or two on your bed and doing it there. If you have a large enough sauna, you could use this space. Be sure to have a towel, a plastic sheet or perhaps a double layer of paper towels below your buttocks to catch any leakage.
- **Hang the enema bag or bucket about two to three feet above your abdomen.** Be sure the clamp is closed tightly. Some people hang the bag from a doorknob, for example. The hose must point downward so the coffee will flow out of the bag.
- **Lie down and insert the enema tip gently and slowly.** Move it around until it goes *all the way in.* If it is not all the way in, it won’t work. Practice will help you learn to do this easily.
- **Open the clamp slowly.** The water should start flowing into the rectum. The water may take a few seconds to begin flowing into the rectum.
- **If the water does not flow,** you may gently squeeze the bag or move the tip around, in case it is blocked.
- **If cramping occurs** as the water is flowing in, close the hose clamp, turn from side to side and take a few deep breaths. The cramp will usually pass quickly. Occasionally, it will not pass and you will need to get to the toilet quickly to release the enema. This usually happens less often as you practice your enemas more.
• When all the liquid is inside, the bag will become flat. Then close the clamp. You can leave the tube inserted, or remove it slowly. If you wish, use some toilet paper to help remove the tip cleanly and then place the toilet paper up against the anus to absorb any leakage.
• **Retain the enema for at least 15 minutes or more.** (Less than 15 minutes is okay, but not quite as effective). See the hints below if this is difficult. You may remain lying on the floor for the 15 minutes or some people can move to a more comfortable location like a bed without spilling any coffee.
• **Relax or do the pulling down exercise.** You will find this is an excellent time to do the pulling down exercise. The coffee inside will help your focus.

**Step 5. Finishing up:**
• **Empty the enema.** After 15 minutes or up to an hour is even better, go to the toilet and empty out. It is okay if some water and coffee remain inside. If little or nothing comes out, you are dehydrated. Either you need to drink more water or the type of water you are drinking is not hydrating you well.
• **Wash the enema bag or bucket and tube thoroughly inside and out with soap and water.** Hang up the enema bag and hose to dry so it is ready for the next use.
• **Rub the tops of the toes, in particular.** If you feel at all uncomfortable, bloated or out of sorts after the enema, gently rub the toes of your feet, especially the top of the toes on the left foot. This will often clear it up. You may eat a meal soon after a coffee enema.

**Helpful Hints:**
• If you wish, when you begin the enema, lie on your right side for 1-2 minutes. Then turn onto your back. This will help the water flow around colon. Having the water in your transverse colon is very helpful because this area has the colon reflexes to the brain. Elevating the hips so the coffee touches the upper surface of the transverse colon is best. Another good way to do this is to massage the transverse colon up and down.
• To make your enema more powerful, you can shine a red heat lamp on your abdomen while you are doing the coffee enema. Carefully position the lamp about 2 feet above your abdomen.
• Some people attach a 30-inch colon tube to the tip of the enema tube, and insert the tube so the water will reach the right side of the colon. This is not usually necessary, but enables water to fill the entire colon more easily.
• If the enema makes you jittery, reduce the amount of coffee.
• The enema may lower your blood sugar. If so, have a small snack before the enema.
• Two coffee enemas, back to back, each for 15-30 minutes, are excellent for detoxification.
• If you have trouble holding the enema, here are suggestions:
  1) The usual problem is intestinal gas. Eating the correct development diet helps this problem, as can taking more GB-3 or ox bile and pancreatin. Before doing the enema, lying down and pulling the knees tightly up to the chest may help expel gas. Occasionally, someone needs to take some hydrochloric acid and pepsin to assist digestion.
  2) The water may be too hot or too cold. Be sure the water temperature feels comfortable as it enters the colon. It should be around 98°F.
  3) It may help to place a small pillow or rolled up towel under your buttocks so the water flows downhill into your colon.
  4) Be patient. Practice makes perfect. If you still have difficulty retaining the enema, leave
the enema tip inside you the whole time so that gas can bubble out through the tube. Use a shoelace to tie the enema tube to your thigh so that it does not fall out.

5) For much more information, read Coffee Enemas at www.drlwilson.com.

**RED HEAT LAMP-POWERED SAUNA THERAPY**

We highly recommend that everyone use a sauna powered by red heat lamps every day. This procedure is excellent to help remove toxic metals, toxic chemicals and many chronic infections. It also relaxes the nervous system, improves circulation, hydration and oxygenation, gently tones the muscles, and has many other subtle benefits as well. The following is an excerpt from Sauna Therapy by this author.

**Sauna Basics - Types of saunas.** Three common types of saunas exist. Traditional saunas are basically a room with a heater. These are found at health clubs, spas and sweat lodges. These are not as effective unless you add at least one red heat lamp to them.

*Far infrared saunas* came into use about 40 years ago. They all emit some damaging electromagnetic frequencies. Also, the frequency range of these units is not the best, in my experience, no matter what the sales people say. For these reasons, we do not recommend them. If you have one, you may be able to add a few reddish heat lamps from the hardware store to convert it into a red heat lamp sauna. You can use the far infrared heaters to heat up your sauna. However, turn off the far infrared emitters before entering the sauna. Never place heat lamps aimed at your head. Always aim them at your chest or abdomen.

*Reddish heat lamp-ppowered saunas* are a newer type. Their advantages over far infrared saunas include:

- They provide frequencies needed for development.
- They do not emit additional harmful electromagnetic fields.
- One can easily focus the light rays on a part of the body such as the sinuses, the liver, a shoulder or elsewhere.
- They offer built-in color therapy that is excellent.
- Rotating the body 90° every few minutes moves the blood around the body even more.
- The sauna operates at a lower temperature (110-120 F.), so it is more comfortable, requires less pre-heating, and they use about 30% less electricity than a far infrared unit.

Feedback from hundreds of clients and doctors indicates that this is by far the best sauna for healing. More details and instructions to convert other saunas to a heat lamp sauna are at [www.drlwilson.com](http://www.drlwilson.com) or in the book, Sauna Therapy.

**How long and how often.** For therapy, one must use a sauna at least three times weekly. For best results, use the sauna daily. Begin with about 15-20 minutes per session and increase up to 40-50 minutes per session for maximum effect. However, increase the time in the sauna only when you are sweating well and can be fairly comfortable in it. Most slow oxidizers can safely use an infrared sauna once or twice daily. NOTE: If one is very debilitated, be sure to begin with sessions of 10 or 15 minutes maximum. As you feel comfortable in the sauna, you may increase the time and the frequency of use.

*When beginning, many people overdo either the length of the sessions or the number of sessions.* Do not make this mistake. Most adults do not sweat much, at first, and this could cause the body to overheat. Also, unpleasant retracing reactions can occur as toxins are released too quickly. Once the skin functions better and one sweats heavily, reactions are less common.
When to do saunas. While any time of day is okay, the best is first thing in the morning and/or the last thing before going to bed. These are the times one is most relaxed and parasympathetic.

Cautions and supervision with saunas. Saunas have been used in one form or another for thousands of years and are generally very safe, even for those who are elderly and ill. However, please observe the following cautions:

- Always move slowly and carefully in and around a sauna as one can slip and fall.
- The presence of a friend or attendant nearby is always best if it can be arranged. This is mandatory if you are quite weak, ill or very heat-sensitive.
- Those who have used LSD or other drugs should always have someone else present during sauna use. Removal of drugs taken years ago from tissue storage sites may cause flashbacks. We have not observed this, but it is possible.
- If you are pregnant, use a red lamp sauna for only 10 minutes and only on your back.
- Avoid saunas for children under the age of five.
- All children must be accompanied by an adult.
- Continue prescribed medication while taking saunas unless directed otherwise by a doctor.
- Check with a health professional if you have a health condition or questions about saunas.
- ALWAYS LEAVE ANY SAUNA IF YOU FEEL VERY FAINT, DIZZY OR SICK. These symptoms do not mean the sauna is harmful for you. It often just means you are not used to it and your body needs to adapt slowly to sweating and removing toxins through the skin.
- Also leave the sauna at once if body temperature rises more than four degrees, if your pulse increases more than 50% of the resting pulse, or if you stop sweating.
- We offer a book entitled Sauna Therapy that contains much more information about saunas. Chapters discuss various health conditions, cautions, protocols, how saunas help the body, many testimonials, plans to build a simple sauna and many medical references.

Basic sauna procedure - before a sauna session. Wait at least one, and preferably two hours after a big meal before a sauna session. Also avoid alcohol or other intoxicating substances. Alcohol or drug use with sauna therapy is a very dangerous combination. The body will try to eliminate all drugs from the body during saunas. Drink at least eight ounces of water before entering a sauna. Spring or carbon-only or sand-filtered water are the only drinking water we suggest. Drinking warm or hot water may assist sweating.

Do not exercise and do not take niacin or mineral drinks or ‘cocktails’ before entering a sauna. Exercise stimulates the sympathetic nervous system, which reduces toxin elimination. High-dose niacin is toxic. Electrolyte drinks are unbalanced, not needed if you eat well, and can upset the delicate mineral balance and thus reduce relaxation, the key to sauna effectiveness.

To replenish minerals lost in sweating, eat a lot of cooked vegetables and use sea salt on food. However, do not add salt to your drinking water. Also, we suggest up to six 600 mg capsules of kelp as a food supplement. If kelp makes you jittery, use less at first. Most people can work up to six capsules daily. Avoid using any kind of oils or lotion on your skin before entering an infrared sauna. Oils can become scalding hot and burn your skin.

Preheating the sauna. For best results, preheat a red lamp-powered sauna to 110° to 120° F. Alternatively, you may enter a red heat lamp sauna as soon as you turn it on and you will warm up with the sauna. However, it will not be as powerful a session or you will need to stay in the sauna longer to achieve the same effect.
During a sauna session. Wear at most a bikini in a lamp sauna because the rays must strike the skin. Wipe off sweat with a small towel. You may sit on another small towel and have a third towel on the floor to avoid slipping. Talking or working are not recommended while in a sauna. Relax, breathe deeply, rub your feet and hands and do the pulling down exercise. Listening to music or the radio is also fine. You can also visualize absorbing the heat and energy while breathing deeply and slowly.

Rotating in a near infrared light sauna. In a red lamp sauna, one needs to rotate 90° every few minutes or so to heat the body evenly. The procedure is to sit on a stool or a chair without a back. Face the bulbs. In a few minutes or when you feel the heat starting to burn, turn 90° to the side. In a few minutes, turn another 90°, and so on.

Other cautions. Avoid touching the hot bulbs and staring at the lamps. Also, do not allow water, a towel or clothing to touch the hot bulbs. One will not get a tan in an infrared sauna, though the skin will usually redden for an hour or so afterwards. Drink at least eight more ounces of water or more either during or after a sauna session. If the sauna gets too hot, just open the door a little to reduce the temperature.

Finishing Up. After a sauna session, take a quick shower to rinse off toxins. If a shower is not possible, towel off with a damp or dry towel. Do not do cold plunges or cold showers after sauna sessions. They are not necessary and just strain the nervous system. However, a warm or tepid shower is probably better than a very hot shower.

In the shower, ideally use a skin brush or loofa to remove more toxins. Brush all over, even your face and hair if possible. The reason is that toxins will be removed from the head area as well as the rest of the body. It can be a little painful at first, but soon feels wonderful for many people. Use only plain soap and shampoo, and you should need very little, as you should be quite clean after sweating.

After your shower, do not put lotion or cream on your skin. They all contain chemicals toxic to the skin. Do not be fooled by products sold in health food stores. The best policy is to use the fewest and most natural products on your skin and hair. As you continue using the sauna, your skin will tend to recover its natural moisture and elasticity.

Rest. Be sure to rest sitting or lying down for at least 10 minutes after your shower or after toweling off. This will allow the body to reap the full benefit of the sauna experience.

For more details, read Sauna Therapy by Dr. Wilson. For more information and a list of those who sell red lamp-powered saunas, visit www.drlwilson.com.

THE PULLING DOWN EXERCISE

We cannot overemphasize the importance of the pulling down exercise. We suggest this exercise, and only this one, mainly because development requires it. It has many other benefits, as well, but there is only space here to mention a few of them. This exercise is very grounding and centering. It also greatly enhances the flow of subtle energy through the body and moves subtle energy in the proper direction. It balances the seven physical energy centers of the body, and it gently brings up traumas and heals them. It is also a wonderful discipline for the mind that enhances memory, concentration and focus.

The Procedure: Sit on a straight-backed chair with your feet flat on the floor or lie down on your back without a pillow, making sure your back is straight and your hands and arms are at
your side. Sitting is somewhat preferable if you tend to fall asleep. However, lying down may be most comfortable.

Close your eyes. *Focus on your feet or even better, focus about 30 inches or 15 centimeters below your feet.* Never focus on your head or you will get a headache.

**Visualizations.** Imagine pulling subtle energy downward. Here are some ways to do this: Imagine turning on a large vacuum cleaner that is below your feet, aimed upward OR imagine standing under a huge waterfall or that you are under a powerful shower. If you are religious, imagine pulling God or Jesus down from heaven into your body - all the way down to your feet. Say and think, “I want more of God, more of God, more of God”.

You can also imagine you are lying in a fast-flowing river with your head upstream and feet planted firmly against a rock so you don’t wash down the river. The water is crashing through your head and moving to your feet or imagine you are wearing tight boots or tight pants and two friends are trying to pull them off for you, one pulling on each leg. Use whichever visualization works best and switch around to make it fun.

**Cautions and pitfalls:** Remember, always focus on your feet and not your head. Also, do not add any chants, words, prayers, mantras or breathing techniques to the exercise. Adding anything at all to it will diminish or destroy its effectiveness.

At first, one may become distracted when doing the exercise. This is normal. Just notice that your attention has wandered. Then resume the exercise. You will have to do this thousands of time, especially when you begin. With practice, it becomes easier and easier.

Random and sometimes ugly thoughts or feelings may arise. This is also normal. There is no need to analyze them and do not suppress them. Just observe them calmly and they will eventually pass away. At times, you may need to take an action, such as to apologize to someone. Until you do this, the thought will keep coming up.

Other problems include boredom, the feeling that nothing is happening or that you are doing the exercise incorrectly. These are normal feelings. In truth, as long as you do the exercise with some force, as though it is the first time you are doing it, it always moves you ahead.

Many people find the exercise easiest to do while they do a coffee enema or the vaginal coffee implant (see below). This works very well and also saves time.

After a time, you can learn to do the exercise while walking very slowly on a straight sidewalk, for instance, where there are few cars or other distractions. In this case, you will need to keep your eyes open just enough so you don’t trip or hit anything. Eventually, you will find you can do the exercise with eyes open, all of the time.

For more details, read *The Pulling Down Exercise* at [www.drlwilson.com](http://www.drlwilson.com). At the top of this article is also a link to an audio version of the exercise that many people like. You can listen or download it free of charge.

**VAGINAL COFFEE IMPLANTS OR THE VCI**

This is a newer and very powerful procedure for women. (Men can wrap a coffee-soaked cloth around the penis for a somewhat equivalent procedure. However, it seem to be more important for women, and that is the reason for focusing on the women’s procedure.)

This simple procedure is clean, safe and easy to do. It will not only clean the vagina. Most importantly, it will help clear an amazing array of old traumas, molestations, rapes, and
other experiences involving men, especially husbands and boyfriends. In our experience, all women can benefit from it! Women store a lot of baggage in this area of the body and it is not easy to access or remove. This is the best method we have found to painlessly and effectively heal this area of the body. The other way is the genital bath, described below.

You will be amazed at what comes up for healing and how clean you will feel inside after doing the VCI for several months to several years. It takes that long to retrace old sexual traumas and old relationships. Many women say it is so freeing they cannot get enough of it.

The Procedure:

Prepare the coffee in exactly the same way you prepare it for a coffee enema. You will need about one cup or 1/8 of a liter. (Ideally, do both the enemas and the VCI. They can be done at the same time, if you want to save time. They are different and one is not a substitute for the other.)

Put the coffee in an enema bag or bucket. You can just pour it in but using the enema bag or bucket is easier. Get undressed from the waist down. You can do the VCI in a bathtub and we recommended this at first in case of spills. Later, you will know how much coffee to use and how to position your hips so it stays inside.

Get comfortable in the bathtub or on the floor with a towel underneath you. You must elevate your hips with a few towels to keep the coffee inside. Some women lie on a slant board with their legs higher than the head. A few people have an inversion table or backswing and can lie on that with the hips somewhat above the head. The exact angle of the hips that is required to keep the coffee inside varies among women so you will have to experiment.

Pour in the coffee and relax for at least 30 minutes. It is an excellent time to do the pulling down exercise and the VCI will make it much easier to do this important mental exercise. You can also just listen to music, listen to the radio or talk on the telephone.

When at least 30 minutes have passed, hold a towel tightly over the vagina and get up and sit on the toilet to release. If you are in a bathtub, just get up.

A variant - the coffee stuff. Some women prefer to soak a washrag or similarly-sized piece of absorbent cloth with the coffee solution and then stuff it deep into the vagina. Inserting it can be a little messy, so it is best done in the bathtub or sitting on the toilet.

The extended and superpowerful method. This is very powerful, so beware. Just before bedtime when you are all ready to go to sleep, get a pad and pair of panties ready. Use the coffee stuff method. Then fasten the pad and put on panties over it to hold it. Go to sleep this way for at least 8 hours. A little coffee will leak onto the pad, but it still seems to work fairly well.

When and how often? One can do the VCI any time of the day or night. It will not interfere with sleep unless the coffee is too strong. Most people do the VCI once a day. However, for acute conditions such as an acute vaginal infection, one can repeat the VCI up to 7 or 8 times daily. For best results, one needs to continue doing the VCI for at least a year or longer.

Cautions:
- Cleanliness. We have never had a report of the VCI causing an infection. The coffee is sterile because it has been boiled. The enema bag has been cleaned with soap and water.
- Pregnancy. In our experience, the VCI is safe during pregnancy.
- Menstruation. The VCI is safe during menstruation.
- Young girls. The VCI can be used with girls of all ages.
- **Virgins.** Virgins can also benefit from the VCI. Some have vaginal infections and the VCI can also help to clear traumas such as molestation.

**THE GENITAL BATH**

This is a simple, safe, inexpensive and powerful therapy that can be done in the privacy of your home. It is excellent for both men and women, and is often helpful for bladder, vaginal, penile, pelvic and abdominal conditions such as pelvic inflammatory disease, bladder infections and others.

**The procedure:** Undress from the waist down. Then sit on the side of a bathtub, facing into the tub. Either splash *cold* water only on the genital area OR use a shower massager to splash cold water on the genital area.

**When, how long and how often?** One can do a genital bath at any time of the day or night. They are helpful for everyone of all ages. For the best results, especially with infections, do about 6 or 7 of them daily. Spread them out, such as one every hour. One can do genital baths regularly for years if one wishes.

**Cautions:** The water must be cold. If your “cold” water is not cold, put some in a bucket and add ice cubes and splash the very cold water on yourself.

**THE NECK PULL**

Our bodies contain thousands of tiny energy channels. They run vertically from the top of the head down to the toes. They are related to the acupuncture meridians. Health depends upon having enough of these channels open and clear so that ether, or subtle energy, flows through them and nourishes all parts of the body.

In most people, subtle energy has the most difficulty flowing through the neck. Injuries and accidents affecting the neck are common. Tension in the neck due to stress or bad posture is also common.

**The Procedure.** Learn the procedure while lying down on your back with your arms at your sides. (Later, you can do it while sitting or even while standing up.) Do not have a pillow under your head. Your head must be facing straight ahead, not turned to one side. Also, have your legs extended straight down away from the head, and close together.

*Begin by breathing in,* using toe breathing. This means that you imagine the breath entering your body through your toes.

*As you breathe in, move your shoulders downward toward your feet.* You can pretend that someone is holding your hands and pulls them straight downward toward your feet.

*When your shoulders are as low down on your body as they will go, quickly pull your neck upward from the crown of the head.* The crown is a little behind the top of the head.

If you do this correctly, you will hear and feel a slight pop in the neck area. Rarely, the pop can occur in your upper back rather than in your neck. This is all there is to the neck pull. It may sound too simple, but it is very powerful.

The sound and feeling is an opening of the vertebrae in the neck. It is somewhat like “popping” your toes or fingers, which is also helpful. It releases stuck energy in the neck area and helps open many subtle energy channels.

**How often and for how long.** Repeat this procedure at least 10 times daily. In fact, if you do it gently and sensibly, it cannot be easily overdone and many people can do it many
times, for half an hour or longer each day. This will speed up development more than most other procedures.

**Cautions:** *Never force anything. This means no fast or jerky motions.* If, at first, your neck won’t pop, this is okay. If needed, begin by just gently stretching the neck. As you feel more comfortable with this, it will be easier to do the neck pull. One might think that popping the neck could do some harm. However, popping the neck in this way seems to have no adverse effects.

**THE DOWN EMBRACE**

This is an ancient and very powerful method to heal and develop the body. It is rarely taught today, but it works very well. It requires:
- A man and a woman. It will not work with a same-sex couple.
- The couple must embrace, facing each other with their heads and feet aligned.
- They need to embrace for at least an hour. A session can go on for a little more than two hours.
- The couple can take breaks to stretch, change position or even to drink or eat. However, they need to remain within about 10 feet of each other during the breaks for the blending to continue.
- The state of health, age, height or other physical characteristics of the couple do not matter. In fact, the down embrace healing and development method works best with older people.
- Sexual intercourse or undressing are not required. However, insertion of the penis into the vagina causes a somewhat more powerful effect. See below for details.

**How it works.** The correct positioning of the bodies causes a blending of the energy fields or auras of the two people. This is the key to the procedure. The couple will feel the blending as a tingling sensation that begins after about 5-6 minutes and lasts for about two hours.

**The position.** The couple can lie down or the woman can sit on the man’s lap, facing him. A small meditation bench can be used to keep her weight off his legs.

**During the session.** The couple can talk, listen to music, or just relax together. For maximum healing effect, they should both do the pulling down exercise during the session.

**How often.** For maximum healing and development, repeat the procedure several times per week. Doing it more often, such as once daily, provides some other benefits. However, the energetic blending will only occur about three times per week.

**Marriage.** The down embrace often works best with married couples. However, marriage is not required. In fact, it can be used to heal and develop one’s own parent or child, or anyone else, provided one meets the requirements above.

**Sexual aspects.** If the embrace includes sexual intercourse, it is called down sex. It is much healthier, gentler, and safer for women than ordinary sex. A feature of down sex is that it is not about orgasms. In fact, the man, especially, needs to avoid orgasms because they cause fluid loss and the man will lose his erection. At first, this makes down sex somewhat difficult for men. The assistance of his partner is most helpful for this.

The man’s penis must be inserted at least one inch or more inside the vagina for the full effect. There can be little or no motion of the penis to prevent him from having an orgasm.

For more details, read *Down Sex* at www.drlwilson.com.
TWO MORE DEVELOPMENT SHORTCUTS

The down hand movement or hand trance. This consists of moving the hands downward from the head to the feet over the front of the body. The hands do not touch the body. One can do this simple procedure on oneself as often as one wishes.

To do this, one lies down comfortably with legs extended. Then place your hands over your head, a few inches from the body. Move the hands gently directly downward from the head as far as you can toward the feet. When you reach down near the feet as far as you can, move the hands away from the body and return them to the head and repeat the procedure. You can do this as many times as you wish. You will often feel a clearing and balancing of the body that occurs as a result of doing this procedure.

One can also do this procedure with a partner. In this case, one person lies down on a bed or massage table. The other person stands or sits to one side and moves his or her hands from the head to the feet over the body of the other person. Do not touch the other person’s body and never move the hands in the other direction. When one reaches the feet, one moves the hands away from the body and returns them to the head to begin again.

The toe trance. This interesting procedure requires a partner whom you trust. One person lies down comfortably on a bed or massage table. The other person gently rubs the tops of the right and the left third or middle toes of the person who is lying down. Within about 5 to 10 minutes, the person lying down will become very relaxed and semi-conscious. When this occurs, healing and development occur much faster. This has nothing to do with hypnosis, which we do not like or recommend.

For more details, read The Development Trances and The Accelerators at www.drlwilson.com

COMBINING A DEVELOPMENT PROGRAM WITH OTHER THERAPIES

Other therapies that combine well with the development program are gentle chiropractic, foot reflexology, acupressure, acupuncture with needles only, therapeutic and shiatsu massage, Reiki, Rolfing, very gentle yoga, and most non-toxic oxygen therapies such as ozone baths, peroxide baths and ozone air purifiers. See the Resource section in Chapter 49 for more details about recommended ozone units.

Healing methods that interfere with the development program in almost all cases are all bio-identical or synthetic hormone use, all vitamin, minerals and herbal therapies, most juice therapy except 10-12 ounces of carrot juice daily or 1-2 ounces of fresh wheat grass juice twice a week, all raw food and vegetarian regimens, fasts of any kind for more than 1 day, all heavy exercise regimens, ALL HOMEOPATHY (very bad), and almost all drug-based approaches unless a drug is needed for a life-threatening condition. Other therapies to avoid are most fermented foods, fruit diets, diets high in fish, and all energy medicine approaches using kinesiology, electrical machines or other methods.

Ray had followed a nutritional balancing program faithfully for a number of years. He also did regular near infrared sauna sessions, coffee enemas and he meditated daily. As a child, he had many ear infections that his ignorant pediatrician had treated with antibiotics, and apparently “cured”. Now, at age 59, Ray was feeling wonderful. His only symptom was dizziness and nausea when using an inversion table, a device that turns the body upside down to relax and stretch the spine.

He called one day because he was very dizzy, nauseous and had vomited when he accidentally put his head back after eating. He had to sleep on his side because lying on his back also caused intense dizziness, as though the world were spinning. In addition, his pillow at night was stained with a fluorescent green substance that seemed to be coming out of his ears. He had very mild pain in his left ear, but the pain was hardly noticeable. Medical tests were normal, but I suspected a retracing or healing reaction of an old inner ear infection. Inner ear problems often cause dizziness.

Ray cut back on his supplements to once per day, and instead took three tablespoons daily of a colloidal silver product containing 15 parts per million of silver. It is best taken about 20-30 minutes away from food or water before and after taking it. Also, he shined a single, red ‘heat lamp’ at the ear for five minutes at a time only, six or seven times daily. The symptoms fluctuated for about two weeks and then went away. A month later, they came back for a few days more, and then disappeared. Ray has had no further problems with his ears for the past two years, and his tendency for dizziness when using an inversion table went away as well.

Retracing is a signature or mark of many deep healing systems. It does not happen much in post-modern medical care, however, or in most of today’s naturopathic and holistic medical care, either. As a result, the concept is poorly understood and often derided.

A BRIEF HISTORY OF RETRACING

Retracing was first described in the Western medical world by Adolf Jarisch (1860-1902) working in Vienna, Austria, and a few years later by Karl Herxheimer (1861-1942), working in Frankfurt, Germany. Both doctors were dermatologists who mainly treated syphilitic lesions of the skin. They noticed that in response to treatment, many patients developed a temporary fever, with perspiration, night sweats, nausea and vomiting. Also, their skin lesions became larger and more inflamed before settling down and healing.
Interestingly, they found that those who had the most extreme reactions healed the best and fastest. Patients might be ill for 2-3 days, but then their lesions resolved. To honor these doctors, retracing reactions are sometimes referred to as Jarisch-Herxheimer reactions, JHRs, Herxheimer reactions, Herx reactions, the Herxheimer effect or the Herxheimer response.

A process and an event. The word retracing refers to both a process and to particular events. The process is one in which the body passes back through earlier states of body chemistry. At times, it is called the reversal process because it is literally a reversal of the decline of one’s health. One must literally retrace one’s steps as healing occurs. This is quite remarkable if one thinks about it.

The events along the path of deep healing are also called retracings or healing reactions. Books about chiropractic, homeopathy and nature cure refer to them as flare-ups, crises, catharses, purification reactions, aggravations, reversals or exacerbations. These terms are essentially identical in their meaning. They refer to temporary symptoms that occur as one’s vitality increases and the body returns to earlier stages of stress and better health. They are most important to understand thoroughly. Two rough analogies may be helpful.

THE PROCESS OF RETRACING

Unloading a canoe. Retracing is somewhat like unloading camping gear from a canoe. As the back packs and sleeping bags are unloaded from the left side, the canoe suddenly tips far to the right. One might have to shift the rest of the load to balance the boat. This is similar to what occurs during a healing reaction. Deep healing ‘upsets the boat’ and the body reacts with various symptoms. Then it rebalances itself and the symptoms go away until the healing process causes the next upset.

Cleaning up the kitchen. A deeper analogy is cleaning up a dirty kitchen. Following a nutritional balancing program is like calling in a cleaning crew. As they are doing their job:

- **Nests of bugs may become disturbed.** At times, they rush out. The ants might even bite the cleaning crew and cause an infection. The person may develop a high fever, chills, pain and other infection symptoms. However, in almost all cases, they represent minor annoyances that pass quickly.
- **Stinky buckets of old toxic chemicals and toxic metals are uncovered.** The crew must stop their work and bring in a hazardous materials removal team. This is dangerous business and must be done carefully and delicately. The person may suddenly feel sick for a few days to a few weeks until it is over.
- **Old decayed food material is found and must be disposed of safely.** This can cause odors, skin rashes, diarrhea and other symptoms.
- **The crew might uncover a leaking main pipe or artery.** The cleaning crew must vacate and the body must bring in a different crew to carefully repair what could be a health catastrophe called a ruptured aneurysm. The person may feel exhausted, or in some pain or discomfort for a few days or even weeks until the problem is corrected.
- **Occasionally, the cleaning crew may uncover an old diary with descriptions of terrible past traumas, such as physical or sexual abuse from 30 years ago.** Rarely, it can be so horrible the cleaning crew must stop again and the person must process the memories and traumas before cleanup can continue. The person may experience sudden anxiety, depression, crying or intense anger, often without knowing exactly why. A few people may want to quit the
nutritional balancing program altogether, blaming it for “causing” an emotional trauma that they did not know was there, or they just didn’t want to look at. This is the retracing process.

BIOCHEMICAL CAUSES OF RETRACING

• **Toxin elimination.** Toxic metals, toxic chemicals, old medical drug residues, and metabolic waste products may be eliminated. As they leave tissue storage sites, they circulate in the blood on their way toward their final elimination from the body, causing various symptoms. A common one is a discharge that can occur through the skin or at any orifice of the body. A client who had had chemotherapy for Hodgkin’s disease ten years before, reported that she had strange discharges from her ears and her vagina. She said she could taste and smell the drugs, just as when she took them years before. Once the discharge was over, the chronic headaches she had suffered with for 8 years went away and have not returned in 15 years.

• **Decompensation.** As adaptive energy rises, the body no longer needs to adapt and compensate as much. It may suddenly let go of some kind of compensation or adaptation. This often causes a slower or a faster oxidation rate, or a shift in a person’s energy, for example. Often, a retest hair analysis is needed to find out exactly what has taken place and how to rebalance the body.

• **Resolving infections.** Most adults have at least a dozen or more chronic infections, in my experience. These are often deeply buried in one’s sinuses, joints, ears, nervous system, intestines and elsewhere. Few symptoms are usually present, with perhaps just some post-nasal drip, an occasional headache or slight pain. Often there are no symptoms at all. Suddenly pain and fever may occur as the body fights off the infection and resolves it once and for all. In severe infections, several bouts of retracing may be needed to finish the job.

• **Completing healing of old wounds, accidents, injuries and surgical scars.** For example, in a healing reaction I had, pain flared up in my wrist for several days that reminded me of a gymnastic injury I had in high school over 40 years earlier. Then it went away as suddenly as it had started, and has not recurred in many years.

• **Actual remodeling of bone and rebuilding of other tissues.** This may cause many sensations such as sensitive teeth or gums, aches and pains, creaking of joints and many others.

SPECIFIC EXAMPLES OF TOXIN ELIMINATION SYMPTOMS

• **Copper elimination** may cause headaches, rashes on the face, trunk, thighs or elsewhere, spaciness, racing thoughts, insomnia, fatigue or anxiety. Men may feel some testicular pain.

• **Cadmium elimination** can cause intense fatigue, pain over the bones, in the kidney area and in the testicles in men.

• **Mercury elimination** symptoms are quite variable, and, at times, quite unpleasant. They may include fatigue, emotional distress, digestive difficulties and others.

• **Toxic metal eliminations** also cause non-specific symptoms such as a metallic taste, rashes, nausea, vomiting, diarrhea, constipation, insomnia, foul breath or body odor, and dark urine. One might even have blood in the urine or stool if irritation is intense enough.

• **Stored medical or other drugs** may cause a distinct smell or taste as the chemical is released. Also, one often re-experiences the effects of the substance to some degree. For example, the release of stored theophylline or caffeine may cause anxiety or insomnia. Release of a stored beta-blocker or sleeping pills may cause intense fatigue. Release of a stored antibiotic can
cause diarrhea by destroying the intestinal flora. Release of Novocain may cause numbness of the face and jaw. In one case, release of a drug caused almost total, though temporary hair loss as it came out through the scalp and hair. Most medical drugs are stored to some degree.

**MEDICAL AND OTHER DRUG DETOXIFICATION**

Whenever one ingests or contacts a toxic metal or chemical substance, the body tries hard to get rid of it. In almost all cases, some of the substance is eliminated quickly, but some is also stored in many places in the body where it is liable do the least damage. As one follows a nutritional balancing program, these chemicals will come out of the body. As this happens, occasionally disconcerting symptoms may arise. A simple protocol for this situation is:

- **Rest much more, and drink more water, but only distilled water.**
- **Stop all nutritional supplements, perhaps even GB-3, for a day or two.**
- **Do a coffee enema or two daily. You may have a colonic irrigation daily instead.**
- **Use a near or far infrared sauna, or even a steam bath if this is all you have available.** However, keep the sessions to 10-15 minutes each, about 3 or 4 sessions daily. Long sauna sessions are not as helpful during healing reactions.
- **Keep the diet very simple, such as one or several cooked vegetables per meal.**

When the reaction passes, then go back on a regular program. It may take a number of these reactions until all of a drug that was used even 20-30 years before is eliminated from the body.

**EMOTIONAL, MENTAL AND SPIRITUAL HEALING REACTIONS**

Retracing does not just occur on the physical level. It also happens on mental, emotional and even spiritual levels. In order for many people to become well, they must release toxic attitudes, thoughts and feelings that no longer serve them. This is often a key to overall healing. Once one is freed from mental and emotional burdens, physical healing often occurs quickly.

Mental or emotional healing reactions might include an insight about oneself or someone else, a shift in an attitude or perception, or bringing up a long-buried memory of an old trauma. An even deeper healing process might involve restoring your connection with God or the divine. Other identity shifts may occur as well. These shifts may, at times, be quite upsetting and life-changing. Well-known medical intuitive and author Carolyn Myss calls some of these situations ‘spiritual madness’ because they cause confusion and turmoil.

**Spiritual healing.** Retracing is an essential aspect of mental and spiritual development. One must essentially retrace and reframe or redo old events and traumas, handling them correctly this time, with patience and calmness. It is like redoing a term paper or a building project where one undoes the faulty parts of the project and redoes them correctly. This is absolutely necessary to build a sound physical and emotional base upon which to grow and develop mentally in the future. Causes of emotional and mental healing reactions include:

- **An emotional shift may be due to a release of a physical toxin or infection.** This may sound odd, but it occurs. Infections can secrete neurotoxins, for example. The release of mercury or copper often causes emotional changes, or perhaps new insights about oneself or others.
• **The release of emotional toxins.** One may suddenly release old ideas or attitudes such as feeling unworthy, unloved, incompetent, stupid, ugly, unfit or unlovable. Others that may be released are fears, worries, anger, resentment, guilt and others. These can be every bit as toxic as pesticides or heavy metals. As these are released, they are often brought to conscious cognition so one feels “worse” for a day or two and then the feeling is gone. At times, the flare-up takes place at night in the form of a terrifying dream, perhaps. Extra sleep and rest may be critical, at times, to allow this processing to occur.

• **Completion Reactions:** Incompletely healed emotional traumas may resolve.

• **Decompensation Reactions:** Some attitudes and behaviors are compensations for early life traumas or even for physical or other imbalances in the body. For example, many women become hardened or ‘tough’ as a result of their need for strength when the body cannot provide it. Others become apathetic due to fatigue, for example. Still others allow their friends or other people to run their lives because they cannot cope well with stress. As health improves, these compensations are no longer needed or appropriate and will drop away.

• **Memories of situations long forgotten may come to mind as the body retraces earlier mineral patterns.** It is as though passing back through an old mineral pattern can remind the body of something in the past that was forgotten.

• **Becoming more yang and more aware.** The body will become more yang, in Chinese terms, as it heals and retraces. This, alone, can bring up memories and traumas for healing.

**RETRACING AND HAIR MINERAL ANALYSIS PATTERNS**

One may retrace any hair analysis pattern. Retracing is a reversal of the disease process that was discussed in earlier chapters. So, for example, if one began in fast oxidation, went into a bowl pattern, and then into slow oxidation with a calcium shell, this sequence may occur in reverse. This can be confusing for both practitioners and clients. There is no way to tell all the patterns a person has passed through during a lifetime. Therefore, there is no way to predict the exact pattern of retracing and it will be different for each person. Some faith is required, at times, to just keep plugging along as one passes back through old imbalances.

As one retraces, a hair analysis retest may look worse. One may retrace a four lows pattern, perhaps, or a low sodium/potassium ratio. This is not a cause for concern, and usually the patterns pass quickly during retracing.

Many layers of retracing may occur. One might retrace a four lows pattern or a very low sodium/potassium ratio not once, but several times. Trusting the hair analysis readings and the nutritional balancing process at these times can be difficult. However, in my experience with thousands of clients, the patterns are not too important and will pass. Trying to analyze every twist and turn of the reversal process is nearly impossible.

An analogy. The process is like refurbishing a beautiful old mansion that is in disrepair. You never know what you will find as you tear it apart in order to rebuild it properly. One must just keep one’s eye on the goal and just keep moving in that direction. In nutritional balancing, this means keeping the principles of balancing the body uppermost at all times and do not be led astray by odd symptoms. One needs to have faith that, once the old house is restored to its former glory, or even better, the effort will all have been worthwhile. This is, indeed, what our clients report.
DANGERS OF HEALING REACTIONS

Physical dangers. Ninety-five percent of healing reactions are benign. Symptoms such as headaches, sore throats or rashes last for a few hours to a few days and then are over. In another few percent of the cases, symptoms are intense such as a severe pain, blood in the urine, dizziness, vomiting or some other more extreme symptom.

Very rarely, they are dangerous. Dr. Bernard Jensen, ND, DC, one of my early teachers, told of a boy he treated with a large tumor on his spinal cord. During a retracing, the tumor swelled, blocking the nerves on the spine. The boy stopped breathing and died. This is one reason I do not recommend nutritional balancing for cancer. The best approach for cancer, I believe, is to get rid of the tumors first with simple natural means. This is often not that difficult with Protocol or the Kelley metabolic cancer program. Once the cancer is gone, then nutritional balancing will heal the body at much deeper levels. It is one of the few times that a more symptomatic approach is best until the symptoms are under control.

Extreme shoulder pain. One intense case under my care was a 76-year-old man who was doing well on a nutritional balancing program for some 5 years. He had a small cancer that had gone away, his energy had returned and he was healthier than he had been in years. Suddenly, he developed a deep cough and green sputum, and an extremely painful and almost immobile shoulder. A chest x-ray showed nothing at all, while an x-ray of the shoulder seemed to show arthritis. His medical doctor informed him he would need surgery for this, which caused him great discouragement.

For the lung or bronchial retracing, I had him take colloidal silver by mouth and inhale it into his lungs. For the frozen shoulder, I suggested working with an excellent chiropractor. Within three months, both symptoms had almost vanished and surgery was not needed. This case emphasizes the importance of supportive therapy in some cases.

Reversing an old neck injury. Another severe reaction occurred recently in a 60-year-old client who retraced a severe neck injury from a car accident 30 years before. I was not even aware of the injury, as he had never mentioned it. He had been paralyzed for a time after the accident. After a few years on a nutritional balancing program, he began to develop symptoms of paralysis again, such as weakness, tingling and numbness in his legs. He had a fall and was hospitalized. X-rays showed neck damage and he was told he would need spinal surgery or he could die. Fortunately, he did not have medical insurance, and instead decided to continue his nutritional program. I made sure he drank 10-12 ounces of carrot juice every day for high quality calcium. Gentle massage of the neck seemed to help. Shining a single red heat lamp on the area several times daily was also helpful. Much to the doctor’s surprise, he quickly stabilized and began to improve.

A case that ended badly was that of a 78-year-old gentleman with a diagnosis of multiple myeloma, a difficult type of cancer to treat because it is in the bones. He was given about six months to live and sent home to die. I do not usually work with cancer, but made an exception in his case. He responded beautifully on a simple nutritional program with two saunas daily and coffee enemas daily as well. However, he decided to have full-body radiation therapy recommended by the Mayo Clinic. I advised him that I would not do this if I were in his position.

About a year and half into his healing program, he developed some kidney failure. Perhaps I should have warned the family more vigorously about the dangers of medical treatment at such a time and at his advanced age. The family put him in the hospital where he was given a
lot of morphine and other drugs. The drugs clearly were very toxic for him, as he was following an extremely pure and clean diet. He lost consciousness and died in a few days.

I don’t know if this client could have passed through the crisis, which I believe was just a breakdown of too much tumor material at one time. Perhaps, I was not alert enough to warn the family, and the family may have been too quick to move him into the hospital.

**Emotional dangers.** Very rarely, a new awareness or retracing of an old mental trauma makes a client so depressed, angry or unhappy that he or she decides to quit the healing program. The best way to prevent this is to warn clients that these episodes might rarely occur, and are not an indication of a problem. Also, practitioners need to be available in person or by telephone to offer guidance and reassurance. They should stay in close touch with the client until the reaction passes. Even doing all of this, however, some clients will abandon their healing program if a powerful reaction occurs. It is too scary for some people, even though such reactions are almost always welcome signs of deep healing in the body and the mind.

**WHEN ARE NEW SYMPTOMS RETRACING AND WHEN ARE THEY EVIDENCE OF A WORSENING OF A CONDITION?**

While it takes some practice, this is often fairly easy to assess by asking a few questions:

- **Most importantly, was the nutritional balancing program followed perfectly?** This includes following the diet, getting plenty of rest, drinking enough of the right kind of drinking water, and taking the nutritional supplements. If the answer is yes, the event or crisis is most likely a retracing. The only exception is if a person is extremely ill, since in that case the program may not be enough to turn around a terminal illness, for example.

  If the person was not following the nutritional balancing program, then a worsening of health is much more likely. For example, a reaction on an herbal program or a random vitamin regimen can easily be due to unbalancing the body in some way. Answering the following questions may also help to figure out the nature of a symptom or flare-up:

- **Was the person feeling better before the reaction occurred?** If so, it is somewhat more likely to be a retracing. This is because healing reactions require energy. Often, a person’s energy level increases until it is sufficient to initiate a reaction. For this reason, healing or purification processes often occur just when a person is feeling stronger.

- **Has the symptom occurred in the past?** Old symptoms or conditions recur during some healing reactions. If one experienced the symptom in the past, the reaction is more likely, though not always, due to healing. The person must also be following a nutritional balancing program. Otherwise, it could just be a relapse of an old condition.

- **Are symptoms unusual?** Healing reactions often produce odd symptom pictures. For example, a person might develop a sore throat or flu without fatigue or a very unusual diarrhea, for example.

**Beware of ‘healing reactions’ on other programs.** I experienced various reactions on a raw food, vegetarian regimen many years ago. I was told they were retracings when they were not. I deeply regret staying on this program a few years longer for this reason when, in fact, it damaged my health severely.
HANDLING PHYSICAL HEALING REACTIONS

Basic support for most physical retracing reactions includes:

- **Rest lying down as much as possible.** Conserve energy for healing. Reduce mental as well as physical activity, and reduce all stress as much as possible.
- **Eat lightly.** Digestion is an extra stress during healing reactions. If you are very uncomfortable, skip a meal. You may notice that symptoms subside after eating a meal. The meal is not making the symptom better. Energy must be diverted from healing to digest the meal, so symptoms temporarily diminish while one digests.
- **Drink extra distilled water during healing reactions.** Most people don’t drink enough water at any time. However, it is especially important during healing reactions. Distilled water helps rid the body of certain toxins, so it often works well at these times. Also, increasing the amount up to four quarts a day may also speed up the healing.
- **Stop your supplement program temporarily.** Most supplements are not needed or helpful during most acute healing reactions. If you are eating, however, continue with your digestive aid. Later in this chapter are specific supplement recommendations for various symptoms.
- **Shorter sauna sessions are often better during healing reactions.** About three to six short sauna sessions of about 10-15 minutes each are often better than one or two long sessions during a retracing reaction. An exception is with very chronic symptoms. In this case, the longer sessions are fine and probably move the process along faster. Once in a great while it is necessary to stop the saunas because they may flare up certain symptoms. Experimenting to see how you feel is necessary at times. Many bacteria and viruses are heat-sensitive. Using saunas or hot baths will help heal many infections. In some cases, saunas may tire out the body and are not as helpful.
- **Other supportive therapies.** Gentle chiropractic, coffee enemas, colonic irrigation, massage, energetic healing, foot reflexology, acupressure and other support may be extremely helpful, or even necessary at times to get through a difficult healing reaction. Repeat supportive measures often until symptoms subside.
- **Always call someone familiar with healing reactions if you are unsure what to do.** However, use caution discussing healing reactions with doctors or others unfamiliar with them. Healing symptoms can easily be misinterpreted as illness. Unless the doctor, friend or family member understands them well, costly tests and toxic medication may be recommended. Medication can complicate reactions and is rarely effective because the body usually wants to move through the reaction as fast as possible.

By following the guidelines above, most reactions will pass easily and quickly.

**Case history - cocaine.** Joann, age 45, had used cocaine and other hard drugs some years earlier in her life. On her nutritional balancing program she suddenly became extremely agitated. Mild coffee enemas helped so much she said they “saved my life”. Several practitioners of jin shin jyutsu also literally took turns and treated her almost 24 hours a day for two days. The reaction passed and she has been fine for 20 years afterwards.

SPECIFIC SUPPORTIVE MEASURES

**Handling flare-ups of infections.** Never ignore any infection! Always consult someone
knowledgeable if any infection persists for more than a few days, as it might be a worsening of a health condition. Always eat lightly and rest a lot more. Drink plenty of distilled or spring water. A mild fever is not a problem. Do not lower a fever with drugs unless it reaches 103 to 104 °F, or if other serious symptoms occur such as a febrile seizure.

To reduce a high fever, preferably use natural methods such as coffee enemas, sponging with cool or tepid water, or a tepid bath. Simple, safe remedies for use at home that will usually stop any infection include:

- **Bee propolis.** About 50 drops three times daily of a standardized extract or about three tablets or capsules daily.
- **Sauna therapy.** Sauna sessions can enhance the immune response in many instances and the heat disables many microorganisms. If you have a near infrared electric light sauna, expose the infected area even more to the infrared rays as this may enhance healing.
- **Heat lamp therapy.** Shining a single reddish heat lamp on the thymus gland (the upper chest) for 15 minutes every hour is a very safe, very effective and simple remedy. Single heat lamp therapy can also be used effectively, at times, on the site of the infection such as the sinuses, the throat, or an ear. However, do not shine the light anywhere near the head area for more than five minutes at a time about once an hour.
- **Colloidal silver.** A good-quality product can help many infections. Avoid homemade colloidal silver as it may be toxic. For most infections, I feel safer using a low potency (5-50 ppm) colloidal silver product only for up to 8 or 9 days at a time, about 2-3 tablespoons per day. You must use less if you take a higher concentration solution of silver. It is also non-irritating so it can be used on the skin, inhaled, a drop placed in an ear, and in other ways. Ideally do not eat or drink for 20 minutes before or after taking colloidal silver for optimum utilization.
- **Coffee enemas or colonic irrigation.** This will also often reduce a fever and promote the natural healing of most infections. Several coffee enemas daily are quite safe if done correctly.
- **Higher-dose vitamins A and C.** Vitamin A, not beta-carotene, can be taken in doses of up to 100,000 iu daily for a week or two. Vitamin C can be taken to bowel tolerance, which is about 10 to 20 grams daily, until an infection subsides.
- **Zinc lozenges may help.** They may be combined with vitamins A and C, echinacea and astragalus, for example, and these herbs can help as well. More toxic herbs such as lomatium may work, but are not as good due to their toxic effects.
- **Dr. Eck suggested a product of his called Limcomin, in doses of about 6-6-6 for adults.** It is a combination with vitamins A and C, zinc, copper, manganese, magnesium and vitamin B6.
- **Foot reflexology.** This can help tremendously in some cases to relax a person and balance energy in the acupuncture meridians.
- **Baths.** A hot bath will disable or kill some pathogens, but not all. Another bath that may help a lot is to place about 2/3 of a cup of 35% food grade hydrogen peroxide in bath water and soak in it for 20 minutes or so. This bath can be done daily during a healing reaction. Otherwise, limit baths to once a week or so due to the toxicity of most bath water. Beware of oral hydrogen peroxide therapy. It is quite irritating to the stomach and less effective. However, it could be used if nothing else is available.
• **MMS or miracle mineral supplement.** This is an inexpensive mixture of chemicals that produces chlorine dioxide, a potent anti-infective agent. Use it only if nothing else works or is available, as it is somewhat toxic. Long-term toxicity is unknown.

**Non-home remedies for infections.** Antibiotic and anti-viral drugs should never or rarely be used, in my view. They tend to be quite toxic to the liver and remain in the body for years afterwards, weakening a person. The home remedies above work in almost every case. If they are not enough, well-researched hospital or doctor’s office alternatives include:

• *Ozone.* Intravenous or rectal administration of ozone by a well-trained person can work, but is not for severe hepatitis, perhaps because ozone does not remove iron from the liver, as does vitamin C and nutritional balancing programs.

• *Hydrogen peroxide.* Intravenous or rectal hydrogen peroxide by someone trained in its use is superb, but not for hepatitis.

• *Hydrochloric acid.* Intravenous use of hydrochloric acid is excellent and non-toxic if done correctly by a person who understands its use.

• *Intravenous vitamin C.* Drs. Frederick Klenner, MD, Robert Cathcart, MD, Thomas Levy, MD and two-time Nobel prize winner Linus Pauling, PhD have all done extensive research indicating that high-dose, intravenous vitamin C can safely treat and cure most viral infections, including AIDS. It is criminal that this simple, inexpensive vitamin is not used more often in hospitals today, some 20-30 years after its safety and effectiveness has been clearly proven. I would only use it for an acute and serious situation because vitamin C is extremely yin and has other side effects, such as increasing iron absorption and decreasing copper, but it works in a pinch and is quite safe.

• *Ultraviolet blood irradiation.* This can be excellent, done by someone trained in its use.

**Hydrogen peroxide to disinfect pools and hot tubs.** To sanitize pools and hot tubs, this often does a better job than any other chemicals, and is less toxic for the bathers. One must also balance the pH of the pool or hot tub. The tub may not be crystal clear, but it will not spread infection as do all other hot tubs and pools. Ideally, the peroxide level should be about 200 parts per million. One can buy simple dip sticks to measure the peroxide level in the water.

Public swimming pools and hot tubs should be avoided, as they spread many infections that are difficult to heal. Your own hot tub is better if the water is changed often and you are the only one who uses it. However, they all can spread infections.

**HANDLING OTHER SYMPTOMS DURING HEALING REACTIONS**

**For pain in the liver area:** Simple, safe remedies are to drink more distilled water or to do a coffee enema or use a castor oil pack on the liver. Shining a single red heat lamp on the area for 15 minutes every hour and taking a little more GB-3 by Endomet Labs may also help. More infrared sauna sessions, foot reflexology, acupressure, or acupuncture needling only may also be useful. An herbal blend of milk thistle, dandelion and perhaps burdock root for a month or two may also help remove toxins and cleanse and rebuild a toxic liver.

**For pain in the kidney, bladder and ureters:** Drink extra distilled water, up to one quart extra per day. Try shining a single red heat lamp on the low back area for 15 minutes each
hour. Also, Renamide from Endomet Labs can be taken in doses up to 5-5-5 for a few days with no danger. Nettles may also be helpful, up to 20 drops three times/day of a standardized extract.

**For Diarrhea:** Diarrhea that is not too severe, and is over quickly, is not a problem. For all diarrhea, stop the supplement program and any spicy, raw, or otherwise irritating food until it passes. Drink a lot more water and some vegetable juice or hearty chicken and/or vegetable soup to replace lost fluids. Other nourishing food includes well-cooked rice or oats. Avoid heavy meals and complex food combinations that are harder to digest. Often, this is all that is needed.

For intense diarrhea, taking about six charcoal tablets, three or four times daily may help absorb certain toxins, and is quite safe for a few days. A single red heat lamp aimed at the abdomen may improve circulation and help move a healing process along. Use if for 10-15 minutes at a time, six or seven times daily. Bentonite clay will stop diarrhea caused by certain toxins, but should be used only short-term for emergencies as it is high in aluminum and perhaps high in other toxic metals. As explained earlier in the chapter, colloidal silver or bee propolis can work well for most intestinal infections.

**Diarrhea that persists.** Diarrhea that persists more than a few days, or is extremely intense, requires more testing. Most often, on nutritional balancing programs, however, it is just an elimination of a poison and it will pass quickly.

**For parasitic infections.** Many people pass worms and other parasites during nutritional balancing programs. In my view, it is impossible to remove all parasites from the body until a person’s vitality has risen high enough and the body is functioning to a point where parasitic organisms can no longer live comfortably. Otherwise, they thrive in diseased intestines and in other organs such as the liver.

Nutritional balancing uses several methods simultaneously to reduce the load of parasites that many people carry. The single most important one is to keep increasing the vitality or adaptive energy level of the body. A very clean diet, a healthful lifestyle free of most international travel, and eating mainly at home can help a lot to reduce exposure to parasites and will slowly rebuild the intestinal tract. Another key aspect is the continuous use of GB-3 from Endomet Laboratories. It is a powerful combination of ox bile, pancreatin, dehydrocholic acid and Russian black radish. Used consistently for a few years, it slowly improves the intestinal lining and makes the body much less hospitable for all types of parasitic organisms. Finally, daily use of the coffee enema will also hasten the fullest cleansing of the liver and the colon.

For certain parasitic infections, a high-quality colloidal silver may work in some cases, used in adequate amount for up to two weeks or even more. More GB-3 may also be helpful. Another helpful low-toxicity product is *lactobacillus plantarum*. This is available at some health food outlets, and should not be mixed with any other probiotic. It needs to be taken for several months, once daily in the morning about 10 minutes before breakfast on an empty stomach. Slowly increase the dosage from one capsule up to about 5 capsules over a period of a month or so. It is not a natural intestinal flora but it will digest proteinaceous material, unlike all other probiotics I am aware of. Another high-quality probiotic that is useful, at times, is called *Original Bio-K*, also available in health food stores.

Another remedy that occasionally helps is to boil about 14 garlic sections in a cup or two of distilled water and eat as a soup twice daily for several days. One could also use at least 15 garlic capsules daily for several days. Other herbs for parasites can be helpful, but their efficacy
is quite variable in my view. Many are also somewhat toxic, including wormwood, black walnut husks, artemesia, cloves and others. A good herbal remedy is called Clear. Prescription drugs for parasites are often even worse in their toxicity and not necessarily very effective.

**Lab tests for parasites and intestinal infections.** If one follows a nutritional balancing program that slowly rids of the body of all parasites, stool and other parasite tests are rarely, if ever, required. If they are needed, however, beware that ordinary stool exams miss many parasites. The laboratory should ask for two, or preferably three stool samples. The test should be costly if it is done well, as it takes several hours of work. Ideally they should do a bowel contents exam which requires using a laxative to clean out the entire intestine. These are quite costly and rarely even offered. Radionic and electrodermal screening devices may also be used to detect parasites and everything else. However, they, too, may not be accurate for a different reason. Most people have many parasites, and it may be difficult to tell electrically which are causing the most problems.

**HANDLING EMOTIONAL HEALING REACTIONS**

Old emotions, attitudes and traumas will be brought to the surface of the mind as they are processed and released. This is similar to dusting off an old computer and really examining what it contains so that it can be purged of old programs and data that is no longer true or relevant. During these retracings, scary thoughts and feelings may flood into the mind like an ocean wave at the beach.

When this occurs, do your best to remain calm, somewhat like handling a wave at the beach. Allow yourself, if possible, to just feel the feelings without either suppressing them or becoming caught up in analyzing them too much. In other words, do not resist them, yet in most cases you need not dissect them, either. Relax, and breathe deeply and slowly through the episode. Rubbing the feet can be excellent. Listening to soothing music may help. Take a relaxing walk or perhaps a warm bath with Epsom salts to relax. It may help to visit a chiropractor of other type of body therapist. This will help the feelings to just move through you with the least resistance.

Try to avoid drawing any conclusions about the feelings that arise, such as feeling sorry for yourself or becoming angry. This usually slows their passing. If possible, pretend they are just screenplay or a movie being shown to your mind for a short while. Some people like to think of these feelings like clouds in the sky that will soon pass away, leaving a clear blue sky.

**Symptoms are usually about the past.** This is an important principle about emotional healing reactions. Believing that the feelings are about the present will often slow or stop healing. For example, many times anger will arise as healing proceeds. Most is from the past and is surfacing now because you are able to process and release it safely and comfortably. Projecting the anger onto someone or something in the present can, in fact, slow down or even entirely stop the retracing process.

**Expressing feelings.** Many of us learned well how to suppress our feelings. As a result, many people are unable to just feel feelings and process them correctly. Some are quite afraid of their own feelings and memories, in fact. If this happens to you, practice allowing yourself to cry, scream or otherwise express feelings. If this is embarrassing, close the bedroom door or sit in a car with the windows closed. However, don’t take it out on family members.

**Counseling during the retracing process.** This can be helpful, at times, provided the counselor understands that on a nutritional balancing program, a person should expect old
feelings, attitudes, memories and even deeply held traumas to arise for processing and release. This is healthy in the extreme, provided, of course, that a person can handle it. If it is too much to handle, then one should take fewer doses of supplements and perhaps slow down the use of sauna therapy or other aspects of the program until such time as one can handle the feelings that arise. To help with this, I would encourage everyone doing nutritional balancing to keep handy a ‘tool kit’ of uplifting, inspiring books, CDs, videos or other items to help keep one centered and grounded during any emotional healing episodes that may occur.

I also suggest working only with counselors who understand retracing and who are what may be called spiritually oriented. This means they understand that the only solution to old traumas is total and complete forgiveness with no exceptions. This is uncommon, however, except perhaps for ministers and pastoral counselors. In retracing work, analyzing every twist and turn of the mind and each trauma, or placing blame or responsibility for every incident and trauma, is absolutely going in the wrong direction. That is psychology, but not spirituality.

Spirituality is understanding that forces beyond our complete knowledge cause most traumas. Our development depends upon letting them go as fast as possible by true, deep and complete forgiveness, so that all parties may move on as fast as possible. Any other approach is not helpful in the long run. We are all mentally and emotionally wounded and unless we can forgive ourselves and others completely, we will continue to wound ourselves and others even more. We need to turn it all over to a higher power and let it all go. This does not mean memories and feelings will magically go away overnight. They will not, in most cases. However, by understanding these principles, deciding that you are ready to move on, and that you will no longer allow old feelings to occupy and disturb your thoughts, the memories will slowly fade away. A bright new day will come. You can someday laugh at your past as a kind of bad dream that you were caught up with, perhaps for years, that really no longer matters.

To move emotional reactions through faster: Sauna therapy, especially with a near infrared type of sauna, may help. Other ways are to rest and sleep more, and continuing with your diet, the proper drinking water and your supplement program.

To slow emotional reactions: Vigorous exercise, stopping your supplements for a day or two, or taking lecithin capsules or granules may help. If, when you resume your supplements, the feelings come back, especially more than once, your body chemistry may have changed and you may need a retest hair analysis.

For nervousness and anxiety: Elimination of many types of stored toxins can cause nervousness or anxiety. Most of these feelings pass quickly and require no extra help or adjustments to the program. If a feeling is very intense, quick fixes include the following:

- **Stop the regular supplement program, except increase or add more calcium, magnesium and zinc.** You may also add ICMN at 2-2-2 or up to 4-4-4. This is excellent for some anxieties. For a few days, you may take up to 2500 mg of calcium, 1500 mg of magnesium, 100 mg of zinc and 800 mg of choline, inositol and perhaps also GABA in 24 hours.
- **Calming herbs such as chamomile, valerian, hops, passionflower and others may help.**
- **Calming homeopathics may help. Rescue Remedy is a flower essence that helps some people.**
- **Extra infrared sauna sessions can help calm the sympathetic system.**
- **Mild coffee enemas are often fabulous as they calm the nervous system and remove toxins.**
- **Rest a lot more, stay warm, breathe deeply and try a warm or hot bath with Epsom salts.** This can be very relaxing and can be repeated up to twice daily for a few days.
• Foot reflexology, massage, acupressure, using a chi machine, quiet music or a gentle walk may help keep you relaxed until the episode passes.

I have never needed to suggest tranquilizers or other over-the-counter or prescription drugs for anxiety during a healing reaction. These are less recommended due to their toxic side effects, but occasionally are useful on a temporary basis.

For severe feelings of depression: Stop Paramin and take more Megapan, up to 3-3-3. You may also take more of the B-complex vitamins, such as Hi-B 1-1-1 or even 2-2-2. Also, more adrenal and thyroid glandulars, and kelp may help as well. Reduce them if you begin to feel jittery or anxious. Seek professional guidance if you feel like harming yourself or others.

SOUL RETRIEVAL

A special type of retracing is the return to oneself of souls that have split off due to traumas of many kinds. Here are ways this type of retracing is done:

• Native American healers and other shamans sometimes offer this type of healing.
• Some hypnotherapists may offer it.
• Strengthening and balancing the body with a complete nutritional balancing program definitely causes this process to occur.
• The pushing down mental exercise, also called the observation meditation exercise in this book, causes the process to occur. It is part of all nutritional balancing programs.

ADDENDUM TO THE 2016 EDITION - SOUL SCIENCE

Souls are the basic units of consciousness. They are extremely tiny and crystalline in nature, although they have a somewhat human form and somewhat human organs and tissues. Modern science denies their reality because they cannot be seen with current microscopes. However, texts such as the Old and New Testaments of the Bible mention them again and again. Following is a brief introduction to the subject of souls. For much more on this topic, please read the dozen or so article about souls at WWW.DRLWILSON.COM.

Souls consist of a spark or center, surrounded by a number of tiny bodies. Each human being contains trillions of souls. There is one main soul called the entity soul. About six others are essential to control the movement of the body. The rest help operate all of the body systems. The brain contains the most souls. The “wisdom of the body” is really the wisdom of the souls that inhabit and body.

Souls inhabit all life forms, and have a symbiotic relationship with them. That is, all souls require a body, and all plant, animal and human bodies require souls.

Souls can be toxic, and can be depleted of nutrients and water. Nutritional balancing programs will help heal the souls, which is essential for healing the body at deep levels.
BUILDING A NUTRITIONAL BALANCING PRACTICE

Jonathan, age 12, seemed healthy, although he was under stress due to his parent’s divorce. When his mother picked him up after school one day, he was distant, distracted, perhaps delirious, agitated and unable to hold a conversation. Alarmed, his mother took him to an emergency room. After performing routine blood and urine tests, no cause could be found and he was referred for an emergency psychiatric evaluation. This, too, produced no diagnosis or even clues as to the cause of the behavior or what to do about it. The mother took her boy home and was planning to take him back to the hospital in a day or two for more tests. At this point, his father, an excellent physician, called me and asked if there were anything I could recommend.

Fortunately, Jonathan had had a hair analysis about 9 months earlier, though he was not following a nutritional balancing program at the time of the emergency. He had been a fast oxidizer, with a low sodium/potassium ratio and several elevated toxic metal levels. The boy’s lethargy and inability to communicate made me think his oxidation rate had slowed for some reason and that his copper was now high. This is a common shift that occurs in teenagers and older children under stress. I recommended a metabolic pack for slow oxidizers, extra vitamin C and zinc, and eating more meat to provide many nutrients needed by slow oxidizers and those with copper excess. I also suggested calcium and magnesium, in case these had become biounavailable.

Jonathan responded within hours. The next morning he was 60% better, according to his father, and by the following morning had returned to his old, happy self. He still needed some nutritional balancing, but a mental breakdown of sorts had been cut short quickly and safely, without a need for medication or other medical intervention. I could not have possibly come up with these suggestions unless I knew basic nutritional balancing science. An important aspect of this case is that a fast oxidizer with a low sodium/potassium ratio is a fast-to-slow transition pattern that usually shifts to a slow oxidation rate with high copper.

This chapter answers many questions about setting up and operating a successful practice. Having your own nutritional balancing practice can be enjoyable, provide a good income and is a fabulous service to offer.

**Learning and applying business basics is of utmost importance.** Business is a skill that some people grasp intuitively and others need to learn. However, it is absolutely essential. Knowing the contents of this chapter will free up your energy to focus on your clients. Ignoring business matters for any reason will often lead to a collapse of your practice, or at least will tie up too much of your time and energy.
THE PILLARS OF SUCCESSFUL BUSINESS

- A positive intention and style. For example, an excellent intent is to offer a great service.
- Good planning and execution. A business plan is practically mandatory to anticipate needs.
- Public relations or promotion. You will need to let the public know you offer a service.
- Excellent service and professionalism. This is mainly common sense, but very important.
- Financial integrity. You must keep your costs low, charge enough to make a profit, and stay very grounded and realistic as to how conduct your business successfully in this area.
- Ongoing client education. This is not essential, but I have found it very helpful for clients.

Let us discuss each of these in more detail. Intention is a very important but simple item. Begin with a clear intention to be of service. This helps keep your business moving in the right direction, and often leads to success. It should be evident to your clients that you offer value and service. Too many people think business is about making money or perhaps other things. Making some money is necessary, but is often a result of your correct intention.

Your business style. Each business projects an image or style. Some are more fun and informal. Other are more structured or “medical”. No single style is best and it may depend on your temperament, and even the location of your business. Listen to feedback from others, but don’t assume that if another person thinks you should run your business differently that he or she is always correct. Experiment with styles to find what works for you. In the natural healing area, a more informal style is often best, assuming you are very clear about your procedures.

PROMOTION AND PUBLIC RELATIONS

Obtaining clients is usually the hardest part of running a business. This is why sales people are generally well-paid. However, anyone can learn the following basic principles:

- Know your product and believe in your work. This means to read and study nutritional balancing as much as possible. I don’t think you will be disappointed in what you learn.
- You must be at least somewhat willing to go out into the world and communicate what you are offering. This is hard for some people, but it is essential when starting a business. Try to find ways that you can enjoy it. Many are described in the section below.
- Think, look and act your business self. This is important for business people. Many will judge you by your appearance and speech. It is not always fair, but it is the way things work in the world, so make a good impression. This simply means to dress, act and present yourself professionally. It does not require a tie and jacket or other trappings, unless it is your choice. It means to dress modestly and make sure you are clean and smell good. Also, relax and act as natural as possible, as a lot of promotion is about relaxing with others.
- Take lessons, if needed, in speech, speaking, dressing well and presenting yourself. I took such a class early in my career and it was helpful. If dressing well and presenting yourself are not your forte, spend more time on this area of your practice.
- The best advertising is satisfied customers. Therefore, treat people well, do a good job and take a genuine interest in your clients.
- Learn how to answer people’s questions simply and directly. This will take some practice. You will learn what people respond to the best and how to phrase the benefits of this work. Most people want to know what this program will do for them, and are not interested in
theories, or even in hair mineral analysis, for instance. Do not say “I offer hair analysis”. Say “I offer a nutrition program that heals most ailments naturally, without drugs”.

- **Always be ready to give your sales talk.** Often prospective clients want and need a ‘sales talk’. It gives them confidence and they want to know how you really feel about your work. Without being obnoxious, do not hold back. Be sure to explain all the benefits. There are so many health programs available that you must explain to people why this one is different, safer, more effective and often much less costly. Of course, do not make untrue claims, and never lie or exaggerate. Nutritional balancing is not for everyone, since it requires some discipline and has some cost. However, it works well in most all cases if a person will do the program.

- **Try various promotional methods or test marketing.** Some will work and others will not. Keep doing that which is effective and discontinue any effort that is not working.

- **Keep putting your name and your work out in front of the public.** This is a business principle.

- **Try to have fun with promotion and marketing.** It will go better this way. If you really do not like this or any other aspect of your business, look for someone to help you with it.

- **Beware of spending a lot of money on promotion.** It is rarely necessary. Be especially wary of anyone who tells you that you must spend a lot to make a lot. This is often not true.

**Common methods of promotion and publicity.** Many promotional methods can be used effectively, depending on your temperament and skills, including the following:

- **Write about your work.** Borrow material from this book, from my website or wherever you like. Please give me credit for authorship if you use direct quotes from my articles. Many towns still have newspapers or online websites where you can write a short piece about your work. Newspapers and some local websites may interview you if you tell them you have a unique service. You might submit articles to magazines, free papers and the newsletters that are placed in shopping bags at health food stores. Mail or email articles to prospective clients. Be sure your name and phone number are displayed prominently so they can follow up easily. Keep all written material simple, clear and concise.

- **Give talks, workshops or seminars on nutritional topics of general interest such as toxic metals, increasing your energy, eliminating depression or others.** Many people are surprised how much fun it can be to give a talk or workshop, once one gets over the initial hesitation. When you give a talk, be sure to bring a sample hair analysis and, if possible, bring along an enthusiastic client who will tell his story in a few minutes and perhaps answer some questions. Also, bring business cards, or even better, hand out copies of a short article or make up a 1-page outline of your talk to hand out with your phone number on it. Also, bring along a pair of scissors and hair envelopes to cut samples after the talk. I usually offer a $10. or $15. discount to anyone who would like to get started at once.

- **Join a speakers bureau.** These exist in all cities, often through the Chamber of Commerce. The speakers bureau publishes a book each year that is distributed to hundreds of service clubs, churches and other organizations that hire speakers. The groups will then call you if the topics you offer sound interesting. Other excellent places for talks and workshops on nutrition include churches, libraries, public schools, health food stores, cafes or in your own home or office. I gave talks regularly and usually got a new client each time.

- **To publicize talks, make up simple flyers and post them around town.** Public bulletin boards are found in health food stores, supermarkets, music outlets, libraries, high schools and
especially colleges. Make a list so you won’t miss any important places to post notices of your events. Also, send copies of flyers and press releases to your local newspaper, radio and TV stations, and town websites. Many will announce events free of charge. Even if someone else is arranging for you to speak, it is usually best to do your own advertising for talks that are open to the public.

- **Use gimmicks such as discount coupons, two-for-one consultation offers, family discounts, one-week specials, free 20-minute consultations, raffling off a hair analysis, or others.**

- **Go through the phone book and make a list of all the chiropractors, naturopaths, massage therapists, physical therapists, acupuncturists, yoga studios, body workers, perhaps medical doctors, health food stores, health clubs and spas.** If possible, pay them all a short visit and leave your information with them. If possible, do not just speak with a receptionist. Make appointments with the practitioners if you can.

  Offer them a discount if they would like to experience your work. Try to find out if they are looking for someone who offers nutrition or biochemical correction to complement their work. Explain how your work complements and enhances theirs.

- **To help acquaint other natural health practitioners with your work, you may want to pay for a healing session with them, or offer to trade services.** It is just a way to get to know them a little and put yourself out in public a little more. However, do not do anything you are uncomfortable with, or that may be unsafe. Also, when trading for services, have the other person pay at least your laboratory and supplement costs so you do not lose money.

- **Produce a brochure.** It need not be fancy or costly, and computers make it quite easy. It is just a way to have something to give out that describes your services quickly and simply. Analytical Research Laboratories also offers a nice, basic brochure you can buy.

- **Keep in mind that most people could benefit from nutritional balancing, even if they are not ‘sick’.** So don’t be bashful. Talk to people while standing in line at the bank or supermarket if you feel so inclined, and hand out your brochure or flyers. Perhaps invite them for a free 10-minute consultation by phone or in person. You never know who will become a client. It is somewhat of a numbers game. This means that a certain percentage of people you meet will come and see you, so the more people you contact, the better.

- **Join business networking groups such as the Chamber of Commerce.** It may be helpful to join other clubs, churches or organizations of any kind where you can meet and talk with prospective clients.

- **Attend business mixers, health fairs, state fairs and other public events.** Be sure to bring your information to distribute. Business cards alone are less useful, in my view. They often end up in the waste basket and they do not inform enough. An article or flyer is better.

  You may experiment with renting a booth at a state fair or health expo. To save money and have more fun, see if you can share a booth with a friend or colleague who offers a complementary type of service such as a chiropractor or massage therapist.

- **Team up with a friend, a colleague or maybe a family member who knows how to do public relations.** Some people have a gift for promotion and may be willing to share their secrets or even design materials and assist you in many ways. You may be able to trade for the services you need.

- **Team up with others who already have a practice or who want to build one.** Sharing an office with them can help build both practices. Preferably this will be someone in a complementary healing art. However, be sure to pick others who have the same goals and high integrity as you do and review all contracts, leases, etc. carefully.
• *Internet marketing is possible, especially if you plan to offer nutritional balancing by mail.* However, you may need professional guidance to make it work.

**PLANNING YOUR BUSINESS**

**Do a business plan.** The basics are to write down your goals clearly, including why you are doing this business and what you want your business to look like in a year, two years and five years. Write down how you would like it to operate. Then list all the expenses. The hardest part is to estimate the income you hope to earn. This will make you think about your fees. Also, estimate how much money you will need to begin and to sustain the business until it is turning a profit. Be sure to include the following in your list of expenses:

• *Office rent and utilities* such as phone, water, gas, electric, internet, cable service, merchant services if you decide to accept credit cards, and others.
• *Repairs and cleaning services.*
• *Capital equipment* such as a desk, chairs, lamps, book cases, computers, copiers, fax machines, answering machine, file cabinets and perhaps others.
• *Office supplies* include paper, ink, envelopes, printing, postage and others.
• *Insurance.* You may need office liability insurance and some people may want malpractice insurance as well. These may not be needed, depending on where and how you work.
• *Taxes* might include sales taxes, property taxes, income taxes and employment taxes if you have employees. I suggest you do not start with employees until your business grows.
• *Wages and benefits.* If you hire people, you must also pay Workman’s Compensation, plus your part of Medicare, Social Security and unemployment insurance.
• *Licenses.* Some areas require a business or transaction license, especially if you sell products.
• *Promotion and advertising.*
• *Legal and accounting fees.* These can add up, so think of using paralegals, for example, to set up corporations or membership organizations. These are not often needed at first, however.
• *Education, business travel and others.* These might include commissions, refunds, gasoline, car repair, and business meals.

**Your office space is important.** Think of various scenarios such as working at home, renting an office or sharing space. If you don’t know what these cost, research them by calling around, and looking at offices. Your space must be clean, quiet, safe, comfortable and attractive for you as well as for clients. A home office can work well if your home is set up adequately for it. Check for local ordinances that may prohibit home businesses, and perhaps work this out with the neighbors.

Renting an office is more involved. Preferably begin with something simple to keep your costs down. Don’t sign a long lease, at first, in case problems develop. Also, keeping overhead low is a secret of effective businesses. Check the space carefully. Ideally, bring a friend along to view it and approve it with you. Note how you both feel in the space, since you will be spending plenty of time there. For example, I prefer having windows that open and being away from noisy and polluted major streets. Once I rented an office just below a print shop. The fumes drifted into the office and made it miserable. Fortunately, I complained and was able to break the lease. If you plan to have employees or to keep a supplement inventory at the office, be sure there is adequate space for these.
Be wary of sharing space or a business with others. Many shared office situations do not work out due to personality conflicts or other problems. If you wish to move in with others, get all agreements in writing and review the agreements carefully before signing anything. For example, if an office associate agrees to refer clients to you and you are depending on this for your business, be sure to put this in writing. Also include a clause that you can leave the situation if the referrals don’t materialize. If possible, have a lawyer friend review all leases and other contracts. Try not to sign a lease for more than a year, at first. Also, do not jump the gun and move in before all contracts and other agreements are clear and in writing. In business, it is always wiser to move ahead cautiously and carefully, keeping in mind Murphy’s law—“whatever can go wrong, will go wrong”. This does not mean to be negative, just careful. If something does not feel right, hold back and review it carefully, perhaps with a very grounded friend. This is much better than getting into a situation that can waste thousands of dollars.

Employees. It is most helpful to begin by doing all the work in your business. If, however, you can find the right person to help answer phones, clip hair samples, sell products and perhaps do the bookkeeping, this can be a great blessing. Be aware of the following:

- Employees can involve a lot more cost and paperwork such as keeping track of their hours, figuring out withholding for Medicare, Social Security and Workman’s Compensation, and paying the money to the state and federal governments every month.
- Employees must be supervised. A huge mistake some practitioners make is to basically turn over aspects of their practice to an employee without continuous supervision. This simply will not work. Plan on supervising your employees closely.

Once you have a business plan and have found a suitable office, the next steps are to:

- Make sure you have enough money to carry out start-up and for at least a year of operation, or think about obtaining a business loan.
- Obtain furniture and other office equipment. Often liquidators and used office supply companies can save you thousands of dollars.
- Obtain any licenses or permits you may need. Many states require a business or sales tax license if you sell products locally, for example.
- Establish a separate bank account for your business. Mixing personal and business activities is illegal, and very confusing and sloppy.
- Set up a simple, clear ledger system to keep track of money. This can be on a computer or an old-fashioned paper-based system such as Safeguard. Safeguard or a similar system will save a lot of headaches, especially if your business grows larger.
- Write down your office procedures. Preferably write up a Policies And Procedures Sheet that you will hand out to your clients. This forces you to decide on fees (to be discussed later), office hours, telephone hours, how and when you want to be paid, supplement discounts and more.
- Set up your office forms. The basic ones are: 1) Intake forms: a General Information sheet, a Symptom Sheet, and your disclaimer, disclosure and perhaps consent form; 2) receipts or super bills, 3) a Retest Information Form, and 4) others such as diet and lifestyle sheets, enema instructions, or short articles on saunas, adrenal burnout syndrome and other common conditions. My website contains examples of forms practitioners can use or modify.
STRUCTURING CONSULTATIONS

The following is a way to organize your consultations that I have used successfully, although other ways are certainly possible. **The initial visit.** (about 30 minutes):

- The client arrives 10 minutes early to fill out the General Information and Symptom Sheets.
- Have the client sign your disclaimer, disclosure and consent form, which is kept in the file.
- Next, cut the hair sample.
- Sit with the client and review the information sheets briefly to be sure they are filled out correctly and you understand the information. Add important details that may not have been clear or were omitted.
- If you wish, set up the next appointment in about two weeks. I prefer to call the client when the test arrives, however.
- I do not charge a separate fee for this first visit. Instead, I include it in the fee for the hair analysis, which is to be paid on the first visit.
- Some doctors mail a hair testing kit to the client and have the client cut the sample, avoiding the need for the first visit. Just be sure the client fills out your information sheets and signs the disclaimer and disclosure statement so you are protected legally. I also like to be paid for the hair analysis before it is sent to the lab to avoid any possible problems with payment. A problem with allowing clients to cut their own hair is they may do it incorrectly, at times.

**The second visit.** (about 1 hour or more). This is the main consultation. Some practitioners break it into two visits, which is okay if you prefer it:

- **Spend ten minutes on a quick interpretation of the test.** Explain you will not spend much time on the interpretation as it is far more important to discuss the program. Briefly discuss the major facts such as the energy level, toxic metals, adrenal and thyroid activity, the oxidation rate, the Na/K ratio and perhaps the Ca/Mg ratio if abnormal. If a client has a lot of questions, you could suggest another visit, or suggest clients read a book, an article, or visit my website, [www.drlwilson.com](http://www.drlwilson.com) to read more information.
  
  I like to mark up the client’s copy of the test, relate the test to the client’s symptoms, and if possible, record the visit on a CD for future reference. The clients enjoy this.
- **Spend about ten minutes on the diet.** Focus on the client’s diet and changes you want him to make, rather than just talking generally. Some clients already eat well and this section can take less time. Others require more time to explain how to shop and prepare food, proper eating habits and more. Diet is an important aspect of any nutritional balancing program.

  **Resources:** Simple diet handout sheets are at [www.drlwilson.com](http://www.drlwilson.com). *Joyful Cooking* by Joy Feldman is an excellent cook book that I endorse, designed for nutritional balancing. You can sell it in your office. Analytical Research Labs also offers the Diet Profile #5 for about $25.00. It will save time and help with compliance. It is not necessary to order this Profile on every hair analysis as there are only two basic plans at this time, one for fast oxidizers and one for slow oxidizers.
- **Spend about ten minutes explaining the supplement program.** Explain the reason for each supplement briefly, why we use these supplements, how and when to take supplements, the cost, how to obtain them, and other hints such as packing them in baggies or using a vitamin chest. You may keep vitamin chests and small baggies in the office to sell to clients.
• **Spend ten minutes on lifestyle.** Especially emphasize the importance of lots of rest and sleep, and going to bed early. This is the most difficult lifestyle aspect for most people. Then discuss gentle exercise such as walking, and other aspects of lifestyle.

• **Spend about ten minutes on the detoxification procedures.** Explain why the sauna is a fabulous adjunctive therapy. This is often a hard sell due to the initial cost. Perhaps have the free sauna plans in your office and the *Sauna Therapy* book to sell. Coffee enemas are also superb for most people. If it seems like too much in one visit, you could wait until the next visit to discuss them. Detoxification procedures are found in Chapter 44 and on my website.

• **Discuss the meditation-observation exercise with those over 20 or so.** It is superb for all adults. It can be critical for some who are under stress or are more spiritually minded.

• **Finishing up.** Always briefly discuss the following:

  o **Medications.** Never tell a client to stop medication or to skip medical tests. You could be held liable for any negative consequences. Have the client work with the prescribing physician to reduce medications. If a person wants to reduce medication and the prescribing doctor won’t go along, it is up to the individual. Ideally, if a doctor will not discuss reducing medication, the client should find another doctor. Nutritional balancing programs should not interfere with drug therapy. However, as a person’s health improves, less medication is often needed.

  o **Other supplements the client takes.** Discontinue these as soon as possible, with very few exceptions. Almost all are not needed and most will negate or even ruin a nutritional balancing program’s effects. Other chapters discuss the reasons for this.

  o **Other therapies.** Chiropractic, bodywork, reflexology, acupressure, massage or acupuncture with needles only, are excellent. Most herbs, vitamins and other therapies must be stopped for best results. Homeopathy is fair, and usually not helpful.

  o **Healing reactions.** The concept of retracing or healing reactions is most important to explain or you may lose clients when a healing reaction occurs.

  o **How and when to contact you to keep in touch.** Be sure you are available by phone or email every day. Most calls will be short and simple. Changes can occur rapidly, so keeping in touch is important.

  o **The next check-in.** Ideally, clients should check in within two weeks of beginning the program. This can be a simple phone call or a simple email. If a client forgets to call you, I suggest you contact the client to check in quickly.

  o **Retesting.** Retests should be done every 3-6 months. I like to do the first retest after three to four months. Subsequent retests may be spread out to six months or even a little longer if 1) the client is fairly healthy, 2) his condition is stable, 3) the oxidation rate is slow, and 4) the person is not in a four lows or four highs pattern. If conditions shift or symptoms flare up, a retest sooner may be needed. In rare cases, a client may ask for more frequent retests for closer monitoring, and this is fine.

**Learning to apportion consultation time wisely.** With some clients, more time is needed to discuss the diet, while in other cases the lifestyle or the supplement parts of the program will require more time. A quick glance at a person’s intake sheets will often give you clues as to where the most time will be needed. At times, a hair analysis may also yield clues.
Follow up visits. A short follow up visit every six to eight weeks, halfway between hair mineral analyses, is excellent, though not always needed. It is a good time to answer any questions, assess progress and review the different aspects of the program. A phone call or even an email exchange might suffice, instead, and be more convenient and less cost for the client. Keeping in touch with clients, I believe, is of utmost importance with nutritional balancing.

Retest visits. When it is time for a retest you will need two shorter appointments. The first is probably 5-10 minutes, and I never charge for this time. The procedure is to have the client show up early and fill out the Retest Form. (A sample form is found at my website). When completed, briefly review the Retest Form, cut the new hair sample, and preferably have the client pay you for the retest analysis and for the retest consultation that will occur when the new test results arrive. You could then schedule the retest consultation in about two weeks or so. Alternatively, you could mail the client a retesting kit with a Retest Form, scale, envelope and instructions, to make this visit unnecessary.

The retest consultation. When the retest results arrive, a half-hour visit or a little longer is most helpful to compare the old and the new tests and explain the new program. The retest visit should cover the same topics as the longer initial consultation, except that instead of ten minutes per topic, about half that much time may suffice to review the changes in the test and redo the program. Once again, some flexibility is needed, as every instance will require somewhat different emphasis. Some clients will do well with diet, but not with the supplements. Others will continue to have lifestyle issues, and so on.

On occasion, clients may not tell the whole truth. One client of mine with agoraphobia (fear of crowds) insisted she was following the program, but was making very slow progress. One day she came in and said she was much better. I asked what she was doing differently and she said “I finally decided to follow the diet you suggested a few years ago”. Conclude all visits by mentioning healing reactions, how to stay in touch and the time of the next retest or visit. Other consultations are usually not needed, but may be scheduled if a client requests them.

Below is a summary of the items to discuss during a full consultation. You may copy this onto a 3x5 card or sheet to have next to you when you do consultations:

**The Consultation Checklist**

- A brief interpretation of the hair mineral analysis.
- Explain the oxidation type diet, what kind and how much water to drink, and eating habits.
- Explain the nutritional supplement program, with the rationale and how to take supplements.
- Explain the lifestyle (rest, sleep schedule, exercise, emotional control, etc.)
- Offer the extra detoxification protocols with near infrared saunas and coffee enemas.
- Discuss the Roy Masters exercise, and perhaps other stress reduction or relaxation ideas.
- Review the medical drugs and supplements the client uses.
- Discuss healing reactions, follow up calls or visits, and when and why retesting is critical.

Remembering retests. Many people need a reminder when it is time for a retest hair analysis. The calendar program on a computer could be used to alert you when to call or email clients for a retest. Also, using the ‘signature’ function in an email program, you can write a generic retest reminder email to send out when it is time for a retest.

An old fashioned way to remind people of retests is to use a 3x5 card box with dividers in 15-day segments for the entire year. Buy blank, stamped postcards at the post office and have a
simple reminder message printed on one side. When clients come in, ask them to self-address one of the postcards, which you place in the card file during the month when a retest is due. When each 15-day period arrives, just pull all the postcards stored in that section and drop them in the mail. Many doctors and dentists use this method very successfully.

**BEDSIDE MANNER / COUNSELING SKILLS**

To become a wonderful practitioner requires more than just learning about hair testing and nutritional balancing. One must also learn how to listen deeply and how to communicate effectively with your clients. Most of us are conditioned by the media and the school system to focus on facts, but not on deep communication with others. Some people are naturally good at this, but anyone can learn it. Here are some basic suggestions:

**Ask questions.** The first key is to ask many questions, and allow the client to speak freely and do most of the talking. Try not to interrupt or even to react much with gestures or facial expressions, even if the information seems unusual. If you must interrupt, preferably do it to ask a short question to direct the conversation, rather than offer advice too quickly, unless you are asked a direct question.

Ask for clarification and feedback often if you are not sure what a person means. With practice, you will come to understand certain common personality types. It requires a kind of dual focus, because one is listening to a specific problem or issue, but also always listening to learn more about the person with the issue. I found that after a few years of doing the Roy Masters exercise, I am able to focus my attention much better on another person.

**Often people know their problem and just need a little time to articulate and verbalize it.** When problems arise on a program, I have found that sometimes just letting the client describe the issue for ten minutes or so, will allow them to figure out a good answer. Most people do not have someone close at hand with whom to discuss deeper issues. They often have friends and family, but the conversation is often superficial. More unusual concepts such as retracing, vitality, intent, awareness and vampirism are rarely discussed around the dinner table.

**Hidden feelings and agendas.** I realized after a few years of doing nutritional balancing that often clients come for consultation for reasons other than what they state. A hair test can often help identify these reasons. I found that talking about these reasons with the client often helps healing proceed better. In some cases, clients are only slightly aware of the real issue, which might be stress in a job or relationship, for example, or depression due to low energy.

**Hair analysis terms.** A hair mineral analysis is helpful not only for the amazing insights it reveals, but also because it brings into the conversation a new set of words like vitality, balance, stressors, toxins and what I call movement patterns. These are phrases such as feeling stuck, going too fast, running on empty, collapsing, sliding down a slope, driving with the brakes on, feeling out of control and others. These may sound like pop psychology terms, but they are often far closer to the ways people really feel than fancy words such as bipolar disorder.

**Other helpful facts about a client that may come out in conversation may include:**

- A person’s level of self-awareness and intellectual understanding of the body and mind.
- The level of integrity and whether a lot of hidden agendas are present.
- Religious or spiritual convictions, or attitudes around these subjects.
- Understanding of and openness toward natural healing concepts and practices.
Play different roles. As you get to know a person better, you will also realize that people are in need of differing approaches, depending on the situation. You may see that you can play different roles for another, once you assess the situation and decide which approach is best. Possible roles you may take include:

- **The clinician or teacher.** Here you impart clinical and technical information, perhaps about what to eat or when to go to sleep.
- **The friend and confidant.** This is more about listening and empathizing, without judging. You might relate a very short personal story to put another at ease and assist the person to realize that others have the same problems as they do.
- **The parent or a paternal/maternal figure.** Here you will be firm and tough, perhaps warning a person of the negative effects of eating sugar or going to bed late.
- **The psychologist or therapist.** You may explain the ways of the mind and the emotions, how feelings affect the body, and how attitudes need to be looked at and hopefully changed.
- **The spiritual advisor/pastor/chaplain.** Many people, I have found, really appreciate a spiritual viewpoint on their issue or problem. This is often simple, since all of us are here to learn certain lessons, and to bless others. We are here to forgive others rather than hold grudges and resentments, as the latter tend to make us ill and depressed.
- **The cheerleader.** It is good to celebrate with another when they have done well in some way.
- **Other.** On occasion, I have acted as a marriage counselor, job counselor, or even the comedian for those who cannot seem to lighten up.

A few other procedural skills are:

- **Set up phone or office visits in advance, if at all possible.** Make sure you and the client have the time available and are relaxed.
- **Make sure you understand what a person is saying by reflecting it back and asking for feedback and clarification, if needed.** This sounds simple, and works well.
- **Begin phone calls or meetings gently.** Start with simple questions for a few minutes to ‘break the ice’ and relax both parties. This is less needed if you already know the person.
- **End conversations on an upbeat note, if possible.** Laughter is also very good if you can find something genuinely humorous or silly to mention.
- **If more needs to be said but the meeting time is used up, schedule more time rather than extending a conversation too long.** This is mainly to keep things flowing well and to be respectful of everyone’s time.

**HAIR ANALYSIS CAN HELP YOUR COMMUNICATION STYLE**

Hair analysis patterns offer clues, at times, as to how to communicate most effectively:

- **Four lows pattern – be brief.** These individuals are often quite driven, intense and in a hurry. Their minds and bodies are keyed up and inflamed in most cases, so just present the facts quickly.
- **Elevated or a hidden high copper – be very clear and positive.** These individuals are often somewhat emotional and perhaps spacey. Many are a little depressed and don’t like
bad news. A few are very analytical, however, and may want more extensive explanations. Schedule another appointment if they use up the time in the initial visit.

• **Calcium shell – write down all important information and record the visit for them, if possible.** These people are often highly intuitive and sensitive, but not fully aware. Speak slowly and positively, and write down important details. I learned to record my visits with them on a CD. Otherwise, I would sometimes receive a phone call later that they could not recall what I had said.

• **Extreme fast oxidizers – be brief and fun.** These include the ADD children and many hyperactive adults as well. They are stressed and perhaps unable to concentrate well. Short visits may be best. Their energy may also be disruptive for you and others. Handling such children, and even some adults is not easy, at times. A practitioner must sometimes be polite, but firm, if a child is disruptive and a parent is not controlling the child’s behavior well.

• **Very slow oxidizers – be positive and speak slowly and clearly.** These individuals are somewhat the opposite of the fast oxidizers. They are often tired, depressed, spacey and many feel hopeless. They need lots of compassion and hope, without many negatives or too much detail at first. Some slow oxidizers are also quite defensive, as this is a defensive stress pattern. If you sense this, try not to argue and do your best to move on.

• **Sympathetic dominant pattern – another hurried group.** These people are often tense and ‘wound up’ much of the time. It is best to keep explanations simple and clear. They are often quite worried and depressed underneath, so keep things very positive, if possible.

• **Bowl pattern – offer options.** Those with a bowl pattern may feel very stuck with no options. So let them know there are ways out of their situation.

**FEES FOR NUTRITIONAL BALANCING SERVICES**

With nutritional balancing, you may charge for the following products and services:

• **Hair mineral testing.**

• **Consultations.**

• **Nutritional supplements.**

• **Other products.** These may include selling books, educational CDs, vitamin chests, baggies for vitamins, pill crushers, saunas, meditation CDs, coffee enema kits and perhaps other handy items. The more products you have available in your office, the more complete your service and the more satisfied people will often be.

• **Other services.** These may include helping people set up their kitchens, cooking classes or taking clients shopping at the supermarket or health food outlet. Other are offering workshops or seminars on various aspects of nutritional balancing science. This is an excellent service that can be quite lucrative as well. This book alone provides enough material for dozens of seminars and workshops. You may also do trainings for other health professionals, chefs, school or company nurses, nutritionists and many others.

**Set up a simple, clear fee structure.** Then carefully track all your income and expenses monthly to make sure your fees are sufficient. While many fee arrangements will work, I have been successful with the following:
• **Offer a free, 10-15 minute introductory consultation by phone or in person to anyone interested in the nutritional balancing program.** Many people like to meet you to gain confidence before starting a program, so I highly recommend this.
• Charge $10-30.00 above your cost on each laboratory analysis to cover this cost.
• **Offer a discount of 10-20% on supplements.**
• **Your hourly rate for consultation time that can vary between $25-150.00 depending on your experience and how busy you are.** Start low to build your clientele.
• **I do not charge for short follow up phone calls or to respond to short emails.**
• **If the telephone or email time exceeds 15-30 minutes, then charge a consultation fee of $25-150.00 per hour or more if needed.**
• **I offer family discounts of $20-30 per couple and even more for children.** Family members will usually help each other stay on the program. This benefits everyone. I charge less for children because their hair tests often require less time to review, their programs are simpler, and they require little or no instruction on sauna use, meditation, enemas or lifestyle in most cases. Besides, helping children grow up strong and healthy is very rewarding.
• **Mark up products about 30 to 50%, enough to make it worthwhile to keep them at the office.**
• **Other personal services such as cooking classes can be charged at hourly rates.** If they involve several clients, you can charge less and still make them worthwhile financially.
• **I often view classes, seminars, webcasts and other events as advertising, so I prefer not to charge much in order to bring in more people.**
• **Your fees can be ‘a la carte’ or you can offer people a package price that might include the hair analysis, the initial consultations and unlimited short follow up calls or emails.** You may need to experiment with this to see what feels and works best for you.

**Nutritional supplement options.** These include:

• **Stock nutritional supplements in your office.** This is most convenient for the clients and will help a few clients to actually begin the supplement program. However, it involves more work on your part and requires more space and a storage cabinet.
• **You can order products for the clients.** They can be mailed directly to the client’s home.
• **Clients may call and order their products directly from Endomet Labs.** You will be credited for the wholesale price. You can direct the laboratory to give a discount to all your clients. I strongly suggest giving a small discount on the products to build loyalty with clients and to reduce the cost of the programs.

**Selling supplements.** A few practitioners believe that selling nutritional supplements is a conflict of interest. To a degree, they are correct. However, it is also a valid service, for which a small profit is well-deserved as a result. I explain selling supplements to my clients as a way that I know they are taking the correct products, and ones that I know are safe and effective. The relatively small amount that I earn from their sale allows me to spend more time with them on the telephone or communicating via emails, without needing to charge for my time.

The other alternative is to send clients to health food stores. Problems with this abound, including: 1) no metabolic packs, 2) buying the wrong products, 3) buying brands of products that don’t work as well, 4) outrageous cost in some cases, and 5) there is no way for the practitioner to monitor which products the client is taking.
Life itself creates many variables that affect the nutritional balancing programs. For the best results, one needs to reduce the variables or unknowns as much as possible. A simple variable to reduce is wondering if the client is taking products that are appropriate. Over the years, we find we obtain the best results, with the fewest number of pills, and generally the lowest cost by using Endomet products, which are Dr. Eck’s formulas created for this program. Chapter 4 discusses other reasons for avoiding certain other products.

**FINANCIAL INTEGRITY**

**Understanding capitalism.** Trade or business is about helping others while you help yourself as well. Many people are confused about this today. Adam Smith called this phenomenon the “hidden hand of the marketplace”. He meant that as one just conducts business in a way that generates a profit selfishly, others benefit, as does the society as a whole. This is rarely taught today in high schools or colleges, but it works superbly. It is, in fact, a holistic type of behavioral system that is not that easily understood.

Common attitudes about capitalism are completely incorrect. No system of commerce is half as good as capitalism for producing quality goods and services at low prices, offering many wonderful choices to the public, and rewarding those who work and study the hardest. The capitalist or free market economic system also teaches people to be kind and courteous to others, to deal honestly and fairly, and rewards those who build their skills and satisfy people’s real needs. The role of the government in a free market system is only to help maintain an equal playing field for everyone, acting as a referee to help settle disputes that arise such as cases of fraud, negligence, misrepresentation and others.

In contrast, in government-run economic systems, also called command and control, fascism, socialism, or communism, things work differently. A central authority makes most business decisions. In every case, they are not as in touch with the real needs of the people, no matter how hard they try to judge the needs. As a result, many mistakes are made that waste resources and anger the people. Also, in socialist other government-run systems, the authorities take away most of the people’s money in taxes and then offer ‘benefits’ of various kinds. However, the government really cannot know what each person needs and wants, so the services are usually much worse and cost much more due to bureaucratic costs and terrible corruption that always accompanies a powerful central government. Such systems, common in most of the world, tend to make people dependent, lazy, angry, and they must learn how to game the system to meet their needs.

The following are some basic principles of financial integrity:

- **Charge adequately for your services.** Otherwise you are not likely to be in business for long. You will likely ‘burn out’ from working with no financial reward.
- **Be clear and “up front” about your fees with everyone.** Preferably, write down all your fees on a Policies And Procedures sheet for this reason. No one likes financial surprises.
- **Be sure people can afford the program before they begin, by being clear about all costs.** To reduce the cost, clients may take supplements only twice daily, or even once daily to save money, although this will likely slow the healing process.
- **Insist that people pay you.** Do not become lax about collecting your fees or some people will take advantage. This creates embarrassing problems. It is human nature to try to get something for nothing, and too many people have the handout or entitlement mentality today.
If someone does not pay on time, it is fine to say to the person that you cannot work with them until payment is received. At times, the wealthiest people complain the most about money, while they plan a European vacation or a million-dollar home remodeling project.

- **It is fine to help people financially as long as all parties are in agreement and comfortable with it.** For instance, you may assist regular clients by taking a check that is post-dated a week or even two, or perhaps accepting your fees in two or three payments. Giving someone a discount is also okay, providing you do not feel resentful about it. One must make a certain commitment, so giving the program away often does not work well.

- **Financial hardship cases.** If a person calls and cannot afford a hair analysis, here are several options: 1) You can simply say you are sorry, and that perhaps funds will be found in the future. 2) You may also mail, fax or email the article from [www.drlwilson.com](http://www.drlwilson.com) entitled *The Healing Lifestyle* or perhaps some pages from the beginning of this book. These outline the program, much of which costs almost nothing such as a better diet, better drinking water, more rest, and a few supplements everyone requires.

  A third option is to make an effort to assist. It is a blessing to help those less fortunate, providing you stay in business to help everyone. I have always done this and am happy about it. Sometimes it works out and other times it does not. One must stay grounded for it to work. If possible, avoid feeling sorry for anyone. You may offer discounts, offer a trade or perhaps speak with one of your wealthier clients and ask if he or she would be willing to pay for a few extra bottles of supplements this month to help another. You may be surprised at the positive responses. Churches, civic organizations, friends of yours or of the clients may also be willing to help out. This is the way people have assisted each other for centuries in a never-ending cycle of kindness and goodness.

**OTHER HINTS FOR A MORE EFFECTIVE PRACTICE**

- **Keeping clients happy.** When working with anyone, you are not just in a healer-client relationship, but also in a business relationship. This aspect of your work needs to flow well or the client may go elsewhere. You may need to bend a little, at times, to accommodate clients. This is not all bad, as it can teach you flexibility and humility. Just be sure you do not compromise your principles or your business, or jeopardize yourself legally or in any other way.

  **It is often far easier to keep a client than it is to try to replace him.** This is another business principle and a reason to be flexible and treat clients well. Some people are much harder to deal with than others, but can still make good clients.

- **Do not work with clients who are rude, who threaten you in any way, who will not pay their bills, or who won’t play by your rules.** Doing business is a legal contract. You agree to do certain things and the client must also agree to follow your rules. If this is not done, politely ask the person to consult someone else. This is vital to maintain your peace of mind and your business.

- **Educate your clients.** There is so much new, different and perhaps confusing about nutritional balancing that continuing to educate your clients is helpful and even necessary, at times, to maintain and grow your clientele. A few simple ways to do this include:

  - **Offer regular talks or workshops for your clients.** Topics may include common health issues such as fatigue or depression, or aspects of the program such as diet, lifestyle, hair analysis or sauna therapy. Encourage clients to attend these sessions, and to bring along family and
friends. This can help with compliance, builds community among your clients and can help attract new clients as well.

- **Send out a monthly email newsletter.** It can be as simple as reprinting an article from my website or the ARL website that would be of general interest. You may wish to have a stack of paper copies available in your office as well.

- **Call clients on the telephone now and then to just check in with them.** They usually love this idea, I have found. Very few doctors or nutritionists take the time to do this. These can be short calls that just let your clients know you are thinking about them. An assistant can even make these calls for you, and let you know who may need more attention.

- **Keep educational materials in your office to be read, or to loan or sell to clients.** These might include books, CDs, the Healthview Newsletter interview with Dr. Eck, and others.

- **If you participate in events such as having a booth at a fair, or giving a public talk, be sure to invite all your clients to these events.**

- **Use the Introductory Consultation compact disc program.** After working with thousands of people, I realized I could record a CD with basic information on it for clients that would save me time, money and energy. It contains basic knowledge about diet, supplements, shopping, food preparation, toxic metals and all about hair mineral analysis.

  I currently offer this CD program for $9.00 plus shipping, and less if you buy five or more at once. These can be given or lent to clients on their first visit to provide basic information. It also becomes a sales tool, as they may share it with family members and friends. Alternatively, record your own CD to introduce people to nutritional balancing science.
Melvin, age 64, had been an inspector at a Ford Motor plant where he was exposed to asbestos and other toxins. He had cervical and lumbar pain, with numbness in the right toes, left fingers and neck area. He also had muscle pain, muscle weakness, sweet cravings, gum disease and ringing in one ear. He did not sleep well, but ate an excellent diet and took many nutritional supplements based on Dr. Williams’ newsletter, *Alternatives For The Health Conscious Individual*. This is a good basic health newsletter.

Melvin’s first hair test showed a four lows pattern with normal sodium/potassium and calcium/magnesium ratios. Copper and manganese were somewhat elevated. Phosphorus was very low at 11 mg%, indicating impaired vitality. His toxic metal levels were very high. Lead was 2.77 mg% or about 50 times normal. Cadmium was 0.05 mg%, about five times normal. Aluminum was 1.68 mg% or about ten times normal.

Melvin did very well on a nutritional balancing program. His symptoms began to diminish within a month or so. His second hair test several months later revealed even higher toxic metals. Iron increased to 5.8 mg%, copper increased to 6.4 mg%, manganese doubled to 0.25 mg%, mercury increased seven times to 0.07 mg%, cadmium doubled to 0.10 mg%, aluminum more than tripled to 5.37 mg% and nickel also tripled.

The point of this case is that even a good diet and plenty of quality supplements did not remove Melvin’s toxic metals. However, when the diet and supplements were adjusted and balanced so they were exactly what he needed, half a dozen toxic metals were removed in a few months with very few side effects, very low cost and excellent safety. Melvin did not even use a sauna, which would likely have caused even more toxic metal elimination in this short time.

Many people hesitate to offer nutritional balancing to others due to legal concerns. This chapter addresses this topic. In my experience, nutritional balancing is extremely safe. However, it is always wise to take legal precautions and to know your rights and responsibilities under the laws of the state and the nation. I faced these issues some years ago and have written a book about them entitled *Legal Guidelines For Unlicensed Practitioners*. This chapter contains a few excerpts from this book.

**CHAPTER ORGANIZATION**

This chapter discusses:

- Laws that regulate the healing arts.
- The legal structure of your healing practice.
• How your thoughts, words and deeds can protect you from legal problems.
• Record-keeping, and consent, disclosure, disclaimer and other statements.
• What to do if a dispute arises, and legal resources.

LAWS THAT REGULATE THE HEALING ARTS

The types of laws that control the healing arts include the following:

• The federal Constitution and each state constitution.
• The laws of the marketplace.
• Basic civil and criminal laws called statutes.
• Medical practice acts in each state. These have been declared legal, according to the doctrine of the police powers of the state.

The federal and state constitutions. A constitution is a covenant or agreement between the people and their state or federal governments. The United States of America was really the first nation to institutionalize the idea that such an agreement should even exist. Constitutions set down which powers are reserved to the people and which are delegated from the people to the government. The US Constitution has been trampled upon, recently, by people who don’t understand it and do not honor it at all levels of government. However, as regards a healing practice, both the federal and state constitutions implicitly or explicitly guarantee:

• Freedom of speech. This should mean you can speak freely when you counsel others.
• Freedom to contract with others. This means you may enter into agreements with others.
• Freedom of assembly. This means you can choose to gather with some people, but not others, if you wish. It also means you will not be arrested for holding a lecture or seminar, for example. It also implies you can hire the people of your choice to work for you.
• Freedom to work. This means you don’t require government approval to open a business or hold a job. Occupational licenses negate the right or freedom to work.
• Equal protection under the law. This means that if a dispute arises or a crime is committed, both parties involved should receive the same treatment under the laws of the state or nation, regardless of a person’s color, race, creed, religion or sexual preference.
• Freedom to fail. This is not written into the law, but is implied. It is an important part of a capitalist economic system. It means that if your business does not go well, you are allowed to go bankrupt. This concept was also violated recently. The current government recently decided that certain large banks, for example, are too big to fail. So they got special privileges even though they squandered billions of dollars. The federal government also believes that drug-based medical care is too big too fail. So, it, too, receives billions in hidden perks, subsidies, bailouts, grants for research and more.

These rights or freedoms may seem obvious, but they are rare in the world. They are also being violated to an ever greater extent, especially in the area of health care, in part because most people do not appreciate, understand and claim them enough.

The laws of the marketplace. These are the basic laws of economics such as the law of supply and demand. It states that the greater the supply of a good or service, the less will be the...
demand for it. This is important to understand so you can know, for example, how much money to charge for your service. Other economic laws become more technical, having to do with why people choose one product or service over another, or decide to do for themselves instead of consulting professionals, for example. These are laws of human behavior. Never forget, however, that your business is subject to the laws of the marketplace, or to people’s behavior, even if you don’t like it or agree with it.

**Basic civil and criminal laws.** These are among the oldest and most important statutes or laws passed by federal and state governments. Familiar examples include laws against stealing, negligence, fraud, robbery, murder, misrepresentation and other crimes. These laws complement the constitutional guarantees or rights listed above.

**Hate crimes.** Unfortunately, newer ‘crimes’ are not as well thought out and often amount to thought control. Hate crimes imply that it is worse to harm another if you don’t like him than if you do like him. This is quite silly in a way, since if one murders another, most likely the person did not like the victim very much. Such laws basically force a jury or judge to read a person’s mind at the time of the crime, which is also often impossible, especially since criminals are, by definition, somewhat insane to harm another at all. Yet too many people accept the idea of hate crimes without challenging the concept.

**Group rights.** This newer legal doctrine negates a basic right of all people to be treated equally under the law. It is part of the *diversity* idea. Group rights give special legal rights to women, blacks, gays or others. Such laws divide the population into legal classifications based upon superficial qualities such as skin color or race. This sets one group against another, and effectively negates a more fundamental concept that each individual must be treated the same regardless of sex, race, skin color, or any other trait. Hate crimes and group rights may seem to be noble. However, they impose a new pecking order that harms the nation, and even hurts the privileged group by not allowing its members to compete fairly with others.

**The state medical practice acts.** These are specific laws, one in every American state and in other nations as well, that restrict the practice of health care to one small group of healers. The wording of the law is roughly that only licensed allopaths (drug doctors) can “diagnose, prescribe, treat and cure any ailment, physical or mental, real or imaginary. Anyone else who attempts to do this is in violation of the law”. This directly negates the right to earn a living, the right to contract freely and other rights as well.

The medical practice acts also directly restrict freedom of speech because they all state that only licensed allopaths may even use the words *diagnose, treat, prescribe* and *cure* in their work. I hope this sounds insane, because it is. However, it is the law in all states and perhaps in other nations as well.

These laws fall under a newer and very un-American legal doctrine called the *police powers of the state.* This doctrine became popular as part of the progressive movement early in the twentieth century when government power increased at the expense of people’s freedom to speak freely, to contract freely and to earn a living. Things have just become worse since then.

**The history of medical licensing.** A little history is important to understand the licensing laws. They were enacted around 1910-1920 in most states. The legislature was told the reason was to protect the public from quack doctors. However, this was a lie. The laws were just a way for the AMA to eliminate its competition – all of the natural healing arts. There was
never pressure from the public to enact these laws. All pressure was applied by the allopaths or
drug doctors and their group, the AMA. This is a historical fact that anyone can check.

In other words, no one was dying due to poor medical care. In fact, America was the
healthiest nation in the world at that time. However, the AMA, which represents the drug
doctors, wanted to increase the income of its members. The AMA is exactly like a labor union
whose sole purpose is to promote the welfare of its members. In their own meeting records, they
wrote that in order for their members to make more money, they needed to forbid others from
engaging in the healing arts. They worked very hard to have the medical practice acts passed in
every state to get rid of their competition. It had nothing at all to do with the quality of care.
When the licensing laws were passed, only the allopaths or drug doctors were given licenses to
practice healing. The graduates of all the other healing schools were shut out. As a result,
literally half the healing schools in America went out of business between 1900 and 1940.
Among the schools that shut down were all those that trained women and blacks, as well. The
AMA did not want competition from these groups. This is how licensing is used for control.

This history must be clearly understood if America ever wants a sane health care system.
Everyone needs to understand that our health care system is a union-controlled shop that locks
out most competing practitioners, clinics, labs, hospitals, research institutes and more. Like
other union-controlled industries, its members do well and the public suffers and that is the
underlying plan. Trying to fix it without breaking up the union control is a total waste of time.

Licensing achieves other goals as well, such as protecting the licensed group from too
much public scrutiny. Medical boards, for example, are made up of allopathic doctors. This is
like putting criminals in charge of the justice system. As a result, modern medicine is now at
least the third leading cause of death in America according to the allopaths own statistics. Yet
nothing at all is done about it and no one is held accountable as long as doctors follow “accepted
practice guidelines” from their licensing boards.

Other goals of licensing. The medical license is also used to:
• Gain employment in hundreds of thousands of medically-related jobs in hospitals,
laboratories, research institutes, clinics, health departments, universities and elsewhere.
• Receive literally billions of dollars each year in taxpayer-funded grants, subsidies and other
programs.
• Receive reimbursement from government-related health programs such as Medicare,
Medicaid, the Veteran’s Administration, the Indian Health Service and almost all private
insurance as well. This is extremely unfair because everyone pays into Medicare, for
example, but only drug doctors and a few others receive payment from the Medicare fund.

I hope this helps create a clear picture of how the AMA-led medical union, based on
licenses, completely controls American health care from top to bottom. This group intentionally
destroyed a wonderful health care system that worked well and had given America the best
health of any modern nation. Since this is a large subject, a more extensive article about
licensing laws is available on my website, www.drlwilson.com.

What about chiropractors, acupuncturists and others? Over the years, a few groups
of healers have obtained partial exemptions for themselves from the medical practice acts so they
are not arrested for practicing medicine without a license. However, the exemption is always
limited. All these healers are forbidden from working in hospitals and remain very much “second-class” in terms of their legal privileges.

**Too big to fail.** Whenever a cartel or union runs an industry, as is the case with medical care, prices always rise, as this is the secret intent. As this occurs, some start calling for a government bailout, rather than fix the problem, which is union control. The cartel is very happy to go along, no matter what they say publically, because it will entrench them even more firmly. With this sad bit of history clarified, let us discuss how to avoid legal difficulties in a practice.

**SETTING UP YOUR PRACTICE LEGALLY**

The suggestions here will minimize legal challenges. Such challenges tend to be more likely if you develop a large or very visible practice, if you charge a lot of money, or if you threaten licensed practitioners in your community. If, on the other hand, you remain cordial toward everyone and focus on offering service, you will usually not have problems. Practice options include working:

- **Under another practitioner who is licensed.**
- **Alone or with a group as an unlicensed or licensed practitioner.**
- **Under a specific legal exemption from the medical practice act for nutritional consultants.**
- **Within a private membership organization so you are not working directly with the public.**
- **Under a minister’s or chaplain’s exemption.**

Your choice will depend on your temperament, background and perhaps other factors. Let us discuss the benefits and disadvantages of each of these options.

**Option 1. Working with a licensed practitioner.** Benefits of this arrangement include:

- **Relative legal safety.** Most of the legal burden is on the licensed practitioner.
- **The perks of licensing.** These can include reimbursement by private insurers and perhaps government programs such as Medicare, Medicaid and others. However, Medicare and Medicaid are paying less and less, and insurance often will not cover nutritional balancing.
- **Professional status.** You can advertise that you work with a licensed doctor. Some people may feel more comfortable with you for this reason.
- **Referrals.** Hopefully the doctor will refer clients to you.

Disadvantages include:

- **Less autonomy.** The licensed person may want to dictate what you can say or do. Also, he or she usually must be present or must sign off or approve all work that you do.
- **Less money, perhaps.** In return for allowing you to work under his license, the licensed person may want more of your income.
- **More regulations.** You must follow many rules and regulations that apply only to licensed practitioners such as record-keeping requirements, HIPPA laws and others.
- **More scrutiny in some cases.** Under HIPPA, a blatantly unconstitutional law, there is no health care privacy anymore in America. All records must be shared with some 45 government agencies.
**Option 2. Working by yourself.** If you are unlicensed then you will work as a consultant or health counselor, perhaps. This option is popular, and is the option I chose. Advantages include:

- *Freedom.* You are free to conduct your practice as you please, provided you do not violate any statutes.
- *More money, perhaps.* You don’t have to share your income with another professional who usually has little to do with earning it.
- *Fewer rules and regulations.* You are not under someone else’s system of rules for licensed practitioners.
- *Privacy.* Unlicensed practitioners, to my knowledge, are not presently required to share information with the government. Nor are you required to have a National Provider Identification or NPI number, another obnoxious new law for licensed practitioners.

Disadvantages are:

- *Perhaps less prestige.* You will not be working under a licensed doctor, if this matters to you.
- *Possibly more legal risk.* More care may be required in the way you present yourself. You could be accused of practicing medicine if you use words, phrases or practices reserved only for licensed persons. For example, you may not draw blood, give injections and the like. You also must not “diagnose, prescribe, treat or cure” anything.
- *Possibly less insurance coverage.*

**Option 3. Operating under a special state exemption for unlicensed practitioners, nutrition consultants or another.** California and Minnesota have adopted broad exemptions from their medical practice acts for various unlicensed practitioners. You should check your state law book for such exemptions if you want to operate under this kind of law.

Advantages of this method are you cannot be accused of practicing medicine without a medical license. Possible disadvantages may include rules and regulations as part of the exemption. For example, you may have to register with the state, sign codes of ethics, pay fees, abide by HIPPA laws that effectively negate privacy, keep certain records or other requirements.

**Option 4. Forming a private membership organization.** With this practice arrangement, anyone who wishes to consult you must first join a private membership organization that you set up. Payments for services are made to the private organization, not to the practitioner. The practitioner works for the group, not for himself, and is paid by the group. If a government agency tries to stop you, they can be sued for interfering with a private contract and violating the First and Fourteenth Amendments.

This option can be wonderful, I am told. The legal rationale for it is that licensing laws are only for those who work with the public. If you are not serving the public, and are working for a private group, you are not as subject to the licensing laws, providing you don’t do anything that is blatantly illegal.

**Option 5. Invoking or claiming constitutional rights.** Some people falsely believe they still have a constitutional right to open a business, earn a living and contract freely with others. However, Americans have allowed these simple guarantees to be destroyed, mostly by
the licensing laws. Therefore, constitutional arguments don’t tend to work in court. This is a
shame, but it is the truth, so I don’t recommend this option.

**Option 6. Work as a minister or chaplain.** Ministers and chaplains are permitted to
offer counseling, teaching and non-invasive natural healing procedures. These include nutrition
and lifestyle counseling, patient education, laying on of hands and the use of herbs and natural
substances. The validity of ministry status has been upheld all the way to the Supreme Court of
the United States. The minister is protected by the First Amendment to the federal Constitution
which states:

"Congress shall make no law respecting an establishment of religion or prohibiting the
free exercise thereof, or abridging the freedom of speech or of the press, or the right of the
people peaceably to assemble and to petition the Government for a redress of grievances."

Most ministry programs are simple ordinations involving signing a few papers and
paying a minimal fee. The case that was won at the Supreme Court was a "ministry mill" that
just charged a fee and had no other qualifications.

Many such programs are available through churches and other groups. Most are offered
by tax-exempt churches. These are churches that have received official tax-exempt status under
section 501(c)(3) of the IRS code. This is an interesting trade-off. The church receives a great
financial advantage. Donors may give money to the church and receive a tax deduction. In
return, the church must file tax forms and report all its income and activities to the government.

**Ministers versus chaplains.** Some churches also offer a chaplain's program. This is a
step beyond and one must be a minister before becoming a chaplain. Chaplain status offers the
ability to work freely in prisons and hospitals. One can also set up centers such as the Salvation
Army operates around the world, or other types of healing clinics.

**Limitations on ministers and chaplains.** The main protection ministry status confers is
that one cannot be accused of practicing medicine without a license if one's activities are within
the scope of a religious functionary.

One may touch another, as in laying on of hands. However, any time a client undresses,
a license is usually required, so most massage is not allowed. Ministers and chaplains are also
not permitted to perform medical procedures such as drawing blood, puncturing the skin or
performing operations. If you are working as a minister, inform clients of your ministerial
status. This can be done as part of a disclosure statement. Also, you will still need to be careful
with your speech and actions as you are still subject to all civil and criminal laws.

**HOW YOUR THOUGHTS, WORDS AND DEEDS CAN PROTECT YOU LEGALLY**

Your attitudes can literally protect you from some legal challenges. Also, if a legal
problem arises, your intent and perspective can help immensely to resolve it successfully. The
following attitudes have served me well.

**About life itself.** Life is fragile, awesome and mysterious. There is much about it no one
understands. All types of practitioners may have some answers, so have respect for all of them.
Prudence, caution and deep respect for life are always in order. Cavalier attitudes about life have
no place in any type of healing practice. If someone asks a question for which one has no
answer, it is best to say “I do not know”.

**Motives or intent.** Helpful motives are to educate, assist and facilitate others' well-
being. If money, prestige, power, control, or getting back at the medical establishment is your
motive, legal difficulties are far more likely. Let go of grudges and judgments about other
erapies or practitioners. If you don’t like a therapy, don't practice it. However, it exists for
reasons which we may not understand. When it no longer serves the level of consciousness of
patients, it will fade away.

**About healers, doctors and therapists.** Doctors, therapists, counselors and healers do
not heal others. They facilitate, guide, inspire, instruct and offer help along the way. Healing
comes from within, often from depths of consciousness of which we know little. A practitioner
should feel privileged to be present when healing occurs. The healing power is in the one healed
and nowhere else. Humility in this area is most helpful. The opposite attitude, the arrogant idea
that somehow one is responsible for another's healing, often leads to disputes and problems.

**Healing as a journey.** Healing is best seen as a path or journey that everyone is on, no
matter what their situation, role, training status or credentials. The path of others is never known
fully to us. Therefore, try to withhold judgment and try to love everyone as best as you can.
Stick to your own work and do your best to maintain integrity in your sphere of knowledge and
action. If you encounter opposition, perhaps there is a lesson to be learned. Try not to wallow in
self-pity, fear, anger or resentment when difficulties arise.

To avoid legal difficulties, *really listen* - to one's inner thoughts, to the clients, to legal
authorities and to those who would oppose your work. Careful listening not only assists in
working with others. It also helps protect you legally.

**WORDS TO AVOID.** *This is critical information.* There is no longer freedom of
speech in the health care area. The allopaths have written into your state medical practice acts
that the words *diagnose, treat, prescribe* and *cure* may only to be spoken by union members.
Amazingly, courts have upheld this crazy and diabolical scheme. They claim that if others were
allowed to use them, the public would become confused. The exact opposite is the truth, in my
view. This is the worst single aspect in the fraudulent licensing system used to brainwash the
American public. It is old-fashioned mind and thought control through manipulation of words.
If you are not licensed drug doctor, you *must* use substitutes for these words:

- Instead of *cure*, use the words restore, help, alleviate, improve, correct, balance, heal or
  normalize.
- Instead of *diagnose*, use the words assess, measure, check, determine or evaluate.
- Instead of *prescribe*, use the words recommend, suggest, advise, propose or offer options.
- Instead of *treat*, use the words handle, work with, relieve, balance, normalize, ameliorate,
  correct or remedy.
- The word *disease* may also be restricted. Instead, use the words condition, problem,
  deficiency, excess or imbalance.
- Instead of naming diseases, as is done in the medical paradigm, use simple, descriptive terms.
  For example, you might say to a client, "I see you have swollen joints", rather than "I see you
  have arthritis". Arthritis is technically a medical diagnosis.

**Other legally protected words.** Words like 'naturopath', 'nutritionist', 'counselor’,
‘chiropractor’, 'psychologist' and others also have legal meanings and may only to be used by
licensed people in almost all states. Safe words to use to describe yourself and your work if you
are not in one of the licensed groups include *health consultant, nutrition consultant, life coach,
educator or healer*. Using the word 'therapist' is probably safe as well. None of these words are
off limits to the unwashed masses, as far as I know. Of course, you can describe what you offer, such as nutritional balancing, or you can advertise your certification or degree. This might include *naturopathic degree*, for example, or *nutrition certification*. It is all a matter of semantics, but failing to observe the rules will cause trouble.

**Other ways to legally use certain words.** At times, one can use a restricted word, say on a business card, if one clarifies the meaning. For example, let us say you have a B.S., Ph.D. or even an M.D. degree, but are not licensed. I was advised it would be legal to use the degree after one's name, but place an asterisk afterwards with a note at the bottom of the page or business card stating that one is not licensed in the state.

A friend was recently told by an employer she could not put her degree, Associate of Science, on a company business card. The reason given was that the degree alone does not explain the person's training and could be misleading. She needs to either state what field the degree is in, or leave it off her business card.

An alternative and safe way to describe yourself is to list areas in which you work, such as nutrition, lifestyle coaching, detoxification, meditation or health education. However, you may not use words such as medicine, naturopathy, counseling, chiropractic or psychology unless you are licensed in these professions since these are currently 'legally protected' words.

**ACTIONS THAT CAN HELP PREVENT LEGAL PROBLEMS**

The following are very important principles to avoid legal problems.

**Do not commit fraud.** Fraud means deceit, trickery or dishonesty. It includes promising something and not delivering on your promise. In practice, this means *do not make claims for your work* unless you are absolutely 100% sure of what you can do. With nutritional balancing, we never know everything about a person so *never make any claim regarding results*.

Instead, explain to clients that restoring health is an individual matter. It is simple in a few cases and it can takes years in others. There are many variables so there can be no guarantees in healing. I tell clients I believe they can be well, but I do not know how much effort it will require. If, after trying nutritional balancing for a while, I see that a person is not improving, I am happy to refer him to others who may offer different approaches.

Too many practitioners are cavalier about this and offhandedly say “I can take care of that problem” or “this is easy to solve”. Avoid all such phrases and instead just say you will do your best. You may also say that others have benefitted with the same problem or that you have seen many benefits from your work. Also, if you tell someone you will call or meet them for an appointment, write it down so you remember to do it. In other words, *always follow through and keep your word about everything*. This will keep you away from most fraud.

**Do not misrepresent yourself or your work.** This means do not pretend, imagine or say your practice is something it is not. For example, do not make yourself sound like a medical doctor who diagnoses and treats illnesses if you are not a union member. Do not say that you “diagnose”, “treat”, “prescribe for” or “cure” copper toxicity. On a more philosophical level, do not make it sound like you do the healing. The client does the healing and that is all. This is a great secret to staying out of trouble. This concept applies to your thoughts, speech and in all written material such as flyers, stationery, brochures, business cards, handouts, articles, websites, or any books, CDs or other materials you may write or are connected with.
Also, be careful to oversee the speech and actions of secretaries, receptionists, assistants or anyone else who works for you or represents you and your practice. I once received a call from the Arizona Board of Medical Examiners when a friend wrote a promotion for a lecture I gave. He misrepresented me as a licensed medical doctor. I had no idea what the friend had written, but I was still responsible for it. I quickly offered an apology and assured the licensing board that I was unaware of the flyers and they would all be thrown away or changed immediately. That was the end of the problem.

Here again is another rule. **Never first become defensive concerning a questionable action. First apologize. It costs you absolutely nothing and it takes away the other’s anger.** It opens dialogue and lets them know you are a reasonable person who can be dealt with rationally. That is better than having them send the police after you. Later, you can figure out exactly what happened and how to handle it. Also, I am sure it was helpful that I responded immediately and made no excuses for the problem. The authorities are less interested in your excuses, as a general rule, and more interested in whether you will take care of the problem.

**Do not speak negatively about other practitioners, no matter what they do or fail to do.** This can be difficult at times, but is a wise legal idea. Instead, you may say “no comment”, “I do things differently” or something else innocuous. If asked about another practitioner’s advice, avoid judgments like “that sounds crazy”. Instead, say, “If I were in your shoes, I would think carefully about that idea”. You might also say “if it were me, I would not go along with that suggestion”.

Speaking badly of other practitioners often confuses clients and can interfere with the trust a client has for you. In every field, many viewpoints exist. I have more respect for healers and other practitioners who respect the work of others, even when they do not agree with it. Some clients are extremely angry with doctors. They often want to tell me about all the injustices and damage doctors have caused them. They also usually want me to sympathize with them, which I do at one level. However, I usually stop them and remind them that it is fine to feel anger, but then let it go. No one is perfect and most doctors do their best. Getting angry is a choice that can motivate a person to action. However, it is a choice that can waste energy, can destroy the body, and gives away one’s power. The essence of healing is taking back one’s power and taking responsibility for all one’s creations. I have learned that holding anger and spreading it around is rarely helpful for me or for others. It can also cause many legal problems.

**Suing doctors.** Though I have listened to many medical horror stories, I have never recommended suing another practitioner. I respect everyone’s right to sue, but am not convinced it is a wise idea, in most cases. It uses up a lot of energy, time, and money, often fosters the victim mentality, and may even keep a person sick. After all, if one becomes well it might negatively impact a pending lawsuit.

Also, I do not wish to be sued, so why wish it on another. I recommend an opposite approach. If you think you have been treated poorly, be sure to thank the person whom you believe wronged you and then walk away. Put your energy toward healing yourself, rather than focusing on the faults of others. I know some will say this is an escapist strategy and I just haven’t suffered enough at the hands of doctors. I don’t agree, having watched a close family member die a horrible cancer death in the arms of modern medical care. I think it is just a different perspective about who causes the most harm to us and the importance of forgiveness
deeply felt. This does not mean one should excuse, condone or forget what happened. It means to let go, move on and get your revenge by spreading your own message.

**Do not tell clients to stop medication.** If you do this, you could be held liable if negative consequences occur. Conventional doctors often become furious with alternative practitioners who tell patients to stop “necessary” medication or that drugs are not needed in a particular situation. At times, the doctors are correct. Suddenly stopping corticosteroids, insulin or even anti-depressants or other drugs can be lethal. Also be careful when considering stopping blood pressure, cardiovascular and anti-seizure medications. Anti-depressants are a tricky area of drug medicine. You may feel they are not needed. However, a very depressed person can easily take his or her own life or commit crimes such as murder.

If you don’t approve of a medication, say, “please read this information about your drug and consider reducing it with your doctor’s approval”. One may also say, “our goal is to reduce your need for medication”. You may explain that medication can be reduced on one’s own. However, it must be handled cautiously with full knowledge of all the possible consequences. If you are very concerned about the effects of a medication, call the prescribing physician and politely voice your concern about his patient. Often, physicians are not aware of all of the side effects of all the drugs they prescribe. New side effects are being discovered all the time.

**Do not diagnose and do not disparage diagnosis.** There are several reasons for this. First, unless you are a licensed allopath you are not permitted to diagnose. Also, nutritional balancing does not involve medical diagnoses, as a rule. Try to stay clear of diagnoses and labeling people. If an insurance company calls and needs a diagnosis from you, use one that a previous doctor gave the client. Otherwise, use something obvious and simple such as fatigue, hypoglycemia or arthritis. Also, be careful with casual speech such as "I think you have cancer," or "I think your child is hyperkinetic." Instead, say, "I think you should rule out a tumor," or "you may wish to have your child tested."

Diagnosis is the realm of the allopathic doctors. For each condition, a valid diagnosis requires a specific test or procedure in most cases. If you suspect a serious health condition and you want a more formal diagnosis, refer the person to someone trained to diagnose it.

**Never advise clients to avoid regular medical care.** This does not mean that clients should see a medical doctor. However, if a client want to see one, do not discourage it.

**Never advise against medical tests.** Even if you don’t believe in certain tests and diagnoses, many people feel more comfortable having tests and diagnoses. Once all the information is in, you are in a better position to discuss different methods of correction. The only possible exception to this rule is if a person wants a dangerous test or procedure. These include angiograms, cardiac catheterization, spinal punctures, liver biopsies, massive amounts of x-rays or some dyes injected into the body such as for intravenous pyelograms and perhaps a few other tests. Cancer biopsies can also aggravate some cancers and spread the disease even more quickly. In all these situations, you may point out the hazards, but I do not suggest making strong statements to discourage a person from having any tests.

As an example, a friend of mine became ill a number of years ago. She consulted an acupuncturist, but she also wanted to go for a blood testing. The acupuncturist, however, talked her out of the blood exam for several months. When my friend finally got a blood test, she was
anemic, and was soon diagnosed with cancer. If my friend had been the litigious type, the acupuncturist would have been in a lot of legal trouble for advising against a simple blood test.

**Do not advise nutritional balancing for active cancers.** Nutritional balancing is excellent for many conditions, but it is not designed for active cancers. Better programs for this condition are discussed in Chapter 35. Also, more legal problems occur with cancer than with most other conditions.

**Be careful about performing medical exams and other procedures usually reserved for licensed doctors.** Rules vary in each state for performing various procedures. Drawing blood is not necessary with nutritional balancing, but it usually requires a blood technician’s certificate. Instead, if you wish to perform blood tests, you can often set up an account at a local laboratory and refer clients there for tests. Technically, one must be a licensed doctor to do this, but some laboratories are lax about enforcing this insane, AMA-contrived, anti-consumer law.

**Having a client undress can definitely cause legal problems unless one is a licensed practitioner.** Even then, always have a female nurse or other person present at all times with you if a female client needs to undress. This should not be done with nutritional balancing. Be careful with this, as female undercover police agents can trap natural practitioners by pretending to be clients and insisting they must show you a rash on a private part of the body. It is not necessary to view it and be sure to tell this to the client immediately. Also, some women today are so angry that they will seek out men to sue by claiming sexual harassment of some kind. Sadly, both men and women must become aware of these dangers in a healing practice.

**Always deal courteously and promptly with all authorities.** You may be contacted by medical boards, the police, the FDA, the IRS, insurers and other authorities. No matter what happens, answer their requests honestly, quickly, and be polite, yet firm and confident. If you accidentally have broken one of their thousands of rules, it is often best to just admit it and say “How shall we fix this?” Give up anger toward them no matter what they do. If unsure how to answer their questions, tell them you will check and be sure to call them back promptly.

This does not mean to become slavish and to bend over backwards to make them happy. Often they are wrong, too. If you believe you are in the right, let them know gently and firmly. If at all possible, call and directly discuss the problem, rather than sit home and fret. Do your homework first, however. Otherwise they may “snow” you with rules and regulations.

The Roy Masters meditation exercise and all his materials about dealing with authority figures is enlightening on this point. Many people view and treat authority figures, at times, the way we viewed our parents when we grew up. We are in fear or anger, and not clear-headed. Try to stay out of this type of thinking. I have watched colleagues get in trouble with the authorities, in large part due to their own anger at their parents and other authority figures.

Often the authorities are just looking to see if you are responsible. If you are, they will leave you alone and bother someone else whom they feel is less responsible. The worst behavior is either 1) to ignore their requests and phone calls or 2) to pick a fight. Either of these means you are projecting your anger and not acting as an adult.

Another rule is not to give out extra information about yourself or your business to bureaucrats and other authorities. Sadly, some are busybodies. They may record your conversation and anything you share can be used against you. The less they know, the better.
Associates and employees often cause the most legal difficulties. For example, guilt by association is very real. If you discover that an associate, office partner, employer or employee is not maintaining high ethical standards, bring it to the person’s attention. If the person will not change, it is best to distance yourself from the person or situation, even if it costs you some money and hassles.

Always put partnership and employment agreements in writing. This way if disputes arise, the facts and agreements are clear. Otherwise, whoever is more convincing with a judge might win out in a dispute. Explain to employees and business partners that you want everything written out, not due to fear as much as it is a way to improve communication because you desire a long and successful relationship. Be sure to include a clause in all agreements that either party may end the relationship if one of the parties is found to be conducting business in an unprofessional manner. Contracts should not be in legalese. Simple English is much better.

Employee-employer relationships can occasionally be sources of trouble. Being an employer is like being a parent, especially if you care deeply about your employees. Learning how to work with employees takes practice. Speaking up to employees when needed is hard, at times, but must be done or serious problems tend to occur. All of us make mistakes, and they must be pointed out in a clear, unequivocal fashion without condemnation. Otherwise, mistakes tend to multiply. I have found if one deals with employees fairly, honestly and openly, they will at least respect you and hopefully love you.

If you are secretive and cannot speak openly and honestly, employees will often start to resent you. If that occurs, they can easily ruin your business behind your back. Also, the boss must oversee the employees work. This does not mean to hover over the employee. You can delegate jobs, but you must be there to oversee and check their work. Firing people can be the hardest job. Also, letting them go can easily cause legal difficulties. Be sure to include in an employment contract that either party may give two weeks notice of termination for any reason.

Simple consideration and politeness. A very competent medical colleague has been sued twice because he is insensitive to his patients. Good service, simple kindness, courtesy and consideration will avoid most legal problems with patients.

If a client dies. Several experiences taught me that often legal problems do not come from clients, but may arise from other members of the client’s family or friends when, for example, a client dies. This occurred twice in my practice. The clients had come with a terminal illness. I told them I would do my best but couldn’t offer much. They were happy with my services, but their loved ones were looking for someone to blame. As soon as I heard from the families, I telephoned them and was able to reassure them the situation had been quite hopeless when I came into the picture, and that I felt very badly that I could not stop the illness.

I mention this because all practitioners should be wary of working with anyone who is very ill. At times, people die suddenly. Those around the patient are upset and vulnerable, and may be advised to look for someone to blame. Nutritional balancing is extremely safe, but no method is perfect, so be careful when working with the elderly or very ill. If possible, get to know their families and make sure the family understands you are doing your best and you care.

Use disclaimers for other services. If you decide to install a sauna, colonic machine or other equipment in your office, I suggest insisting that each person who uses it signs a simple
disclosure and disclaimer statement. It should say that 1) we make no claims for this procedure, 2) it is not intended as prescription, treatment or a cure for any health condition, mental or physical, real or imaginary, 3) while very safe, one uses a sauna or other machine at his own risk, and 4) if you have a medical condition, you may wish to check first with your medical doctor concerning the use of this device or therapy.

**Explain all fees and charges clearly and slowly, preferably before starting with a client and in writing.** The best idea is to give all clients a sheet with your fees printed clearly right at the start. Also, discuss fees openly and never evade these questions. Also, feel free to discuss fees on the telephone with prospective clients. This is absolutely acceptable. Do not follow the stupid example of many doctors who won’t discuss fees over the telephone or email.

Also, keep charges reasonable to avoid legal problems. People can easily check the real cost of tests and other items and are liable to become angry if you are padding the bill. Just because hospitals do it does not make it an acceptable practice. However, it is fine to mark up a hair analysis and other items in a reasonable way.

Beware of fudging when you write up a bill for a client. Sometimes doctors do this to get more insurance coverage, for example. If the person is sharp, he or she could attack you legally for falsifying the bill. An undercover policewoman once came into my office posing as a client. I did everything correctly, except that I referred her to another holistic doctor who fudged her bill because she asked him to do it. She later had him arrested for this.

**How much to charge.** Sadly, charging too much opens you to legal difficulties. You should be able to charge whatever you wish, but in today’s legal climate it becomes another excuse for people to go after you legally. In my experience, charging a lot of money is not necessary to make a good living. Take a cue from Walmart and the other discount stores. They make money because they keep costs low and are efficient, well-run businesses.

**Donations instead of fees.** A somewhat unusual idea to reduce some liability is to receive compensation by donation or honorarium, rather than charging fees. An honorarium is payment for a service for which custom forbids any price to be set. Healing and related services were often offered on a donation basis in the past.

The concept of the donation is that if a person does not pay your suggested donation or honorarium, you will take no legal action. However, one must be practical about it so you earn enough to stay in business. Also, even if you give away your services for free, you are still responsible for your actions. You can still be taken to court if you harm someone.

**Screen your clients.** Screening your clients by asking how they heard about you is an excellent idea. Holistic practitioners are more subject to visits by undercover police, medical spies and others who are up to no good. Anyone who asks unusual questions or seems to be fishing for information should be suspect.

In legal terms, visiting a practitioner and going on a healing program involves contract law. Contracts must be entered into voluntarily or it is not a valid contract. If you feel very uncomfortable working with anyone, it is good to just say this and perhaps offer to refer them to someone else. Good reasons you may choose not to work with a person include:
• Those who even hint or remotely appear to threaten you physically or emotionally. For example, I have a standing policy that I will not work with anyone who loses his temper with me or with an employee, or otherwise treats me or any employee impolitely or poorly in some other way.

• Those who do not pay their bill in a timely way. Owing a little money is okay, but repeated indiscretions or excuses are just irresponsible and not worthy of your time and energy.

• Anyone who lies about any aspect of the doctor-patient relationship. This can range from giving a false address or phone number to lying about a health condition.

• Those who seem like they will sue you or make trouble for you. For example, once a client proudly told me how she had sued two doctors and how angry she is with health care providers. I decided to refer her to someone else, rather than join her list of people to sue.

• Perhaps anyone who will not follow the nutritional balancing program. Some nutritional balancing practitioners tell me they do this because they feel they are wasting their time if a client refuses to follow instructions. This is a case-by-case situation. The only time I have done this is with those who are quite ill. If such individuals are not willing to do what I suggest, the consequences could be catastrophic for them.

• Anyone who is disruptive in your office. This might be a very hyperactive child whose mother or father refuses to control the child’s behavior. However, it could be someone who is noisy, who bothers other clients or even a client who refuses to bathe or insists on wearing an extremely smelly perfume after being asked not to do so.

**Respect the privacy of the doctor-patient relationship.** All conversations and information exchanged between practitioner and client is to be kept private unless otherwise agreed upon. Do not give out records or any information about a patient to anyone by any means, without the proper release of records form.

Also, be sure your office is set up properly and kept neat so that private information is not, for example, left sitting on a desk where others can take a peek at it. Computers should also be made secure with passwords and preferably shut down when no one is around, also to protect sensitive client information.

**HIPPA.** The “privacy act”, also called HIPPA, is the opposite of privacy. It is designed to destroy the privacy of the doctor-patient relationship. If you can avoid HIPPA, I would do so on moral grounds. Unlicensed practitioners need not comply with it, I believe. I am saddened that Americans put up with such disgraceful legislation without much complaint.

**RECORD-KEEPING**

While records are usually private unless you are part of HIPPA, records may be subpoenaed for a court case if one of your clients, for example, is murdered or is involved in another legal matter. For this and other reasons, have a file for each client that contains:

• The General Information and Symptoms Sheet, and the signed Disclaimer, Disclosure And Consent Form.

• A copy of all hair mineral analyses.

• Ideally a copy of all the recommendations you have made.

• Client feedback regarding symptom changes and other progress notes.

• Other tests the client may have brought in or that the practitioner requested.
Perhaps other information about the client such as payment information or other.

Other records you will need to maintain include ledgers, checkbooks and other financial information for tax and legal purposes, tax returns and others. Keep all financial and legal records in a secure place in your office or home for at least seven years.

CONSENT, DISCLOSURE, DISCLAIMER AND OTHER STATEMENTS

Certain statements that each client signs and dates are very important legal tools to:

- Improve communication to produce a better relationship between you and your clients.
- Educate clients by clarifying who you are, what you do and other information.
- Protect against legal harm from clients and perhaps from authorities as well.

Some practitioners resist the use of legal forms in their practice. They feel it appears cold and unloving. I would suggest that a short, clear statement is just the opposite. I personally do not like long, legal-sounding forms, although some attorneys suggest these. The attorneys I consulted suggest that in a court of law, simpler statements are likely to hold up better because a client could argue that a long, legal-sounding statement was hard to understand. Let us discuss the major types of statements that will be combined, eventually, into the one you will use.

Consent, or request for services. This can be a simple sentence or two explaining the program. You may want to add more, but I do not think any more is needed. It can prevent anyone from claiming he did not know what service you offer. It might read: “I request that Jane Smith perform a hair mineral analysis and set up a nutritional balancing program for me.”

Disclosure. A disclosure statement tells clients about yourself, such as degrees earned, courses taken and other training or experience. A basic statement is probably best and might read: “I understand that Mike Jones has a degree in psychology from Ohio University and has studied nutritional balancing for five years with Dr. Wilson and his advanced students.” OR “Barbara Smith received her nutrition certification from World College, is certified in nutritional balancing and has over 10 years of experience.”

Disclaimer. This is a simple statement of what you are not claiming or not intending to do. It lets clients know what and who you are not. It might read: “Nutritional balancing is not intended as diagnosis, prescription, treatment or cure for any disease, mental or physical, real or imaginary.” OR “Robert Smith has a degree in naturopathy but is not licensed in the state of New Jersey.”

These statements can be combined into a single short paragraph by just listing them one after another. The client should sign and date the paper to show they were read and understood. In my office, the paragraph is made part of the General Information sheet to save on paperwork. I consulted several attorneys regarding the value of these statements and was told:

- They are excellent legal prevention and excellent for patient communication as well.
• The simpler and easier they are to understand, the better they will hold up in a court of law.
• They also definitely help you appear to authorities be a responsible practitioner.
• They do not guarantee avoiding legal difficulties. Every practitioner is still subject to charges of fraud, negligence, practicing without a license and misrepresentation if you act irresponsibly or if harm is done to someone.

OTHER POSSIBLE LEGAL STATEMENTS

Recommendations disclaimer. This is a disclaimer at the bottom of any sheet on which you write recommendations for clients. I have never used this, and I don’t think it is needed. However, some practitioners like it. It does not require a client signature and might read: “These recommendations are for the reduction of stress only. They are not intended as a prescription, treatment or cure for any disease.”

Waivers for other office services and procedures such as saunas are discussed above.

Ninth Amendment statement. The Ninth Amendment to the federal Constitution states: “The enumeration in the Constitution, of certain rights, shall not be construed to deny or disparage others retained by the people.” A similar Amendment is also found in all state constitutions. This is the most controversial Amendment to the US federal Constitution. It means that just because a right is not spelled out in the other Amendments or elsewhere, does not mean that it does not exist. It is an affirmation of the doctrine of limited government power and means that all rights not specifically delegated to the federal government are retained by the people. This Amendment was added to the Bill of Rights, which are the first 10 Amendments, at the insistence of the wise founders of America who understood that the government would tend to slowly take away the rights of the people.

You can include a short statement that you endorse and live by the Ninth Amendment, and any effort to stop you from following your conscience in this matter is subject to legal challenge. This is an involved subject that is covered in detail in Legal Guidelines For Unlicensed Practitioners. The Ninth Amendment statement is not needed, in my view, so I don’t use one, but some practitioners may want one. Also, everyone needs to understand the much-ignored Ninth Amendment to the US Federal Constitution.

ASSET PROTECTION

This is a large area. All healing practitioners are somewhat vulnerable to frivolous lawsuits. If a person has significant assets, it is worth discussing this with a competent lawyer.

IF LEGAL DISPUTES ARISE

Information requests. If you receive a letter or request for information from an attorney or from any governmental authorities, or even insurance companies:

• Always answer promptly all requests for information. They may come from the IRS, FDA, insurance companies or licensing boards. For an extra dollar or two you can ask the US Postal Service for Delivery Confirmation, Priority Mail or even Certified Mail to make sure letters arrive in a timely manner.
Ideally, when such a letter arrives, start a file and keep copies of the letter and everything you send them. Also keep the Postal Service slips you receive with delivery confirmation, for example. Make sure everything has a date stamped on it so you cannot be accused of ignoring the request if something is lost in the mail.

- **Licensing boards, in particular, can often overstep their authority.** If a request seems unfair or out of line, you may want to seek legal advice.
- **If you are unsure about the purpose of the letter, or what information is needed, it is fine to call and ask for more details.** But beware that your conversation may be secretly recorded and anything you say can be used against you in court, so do not give out much information about yourself or the issue over the phone.

**Handling disputes with patients or employees.**

- **Always pay close attention to all legal-sounding letters and phone calls.** Do not ignore them. Try to find out what is going on and the purpose of the letter or phone call. Check your records and do your homework before responding, however. In this way, you can handle many complaints quickly on your own.
- **The exception is a letter from a law firm stating you are being sued.** This will likely require that you consult an attorney or at least a legal professional of some kind.
- **Ignoring a letter or phone call can be taken as meaning you are guilty of whatever you are accused of.** Call people back promptly to let them know you received their complaint. Preferably don’t say any more until you have spoken with a legal professional.
- **If the complaint is from a client, before actually discussing a problem do the following:**
  - Check your records carefully so you know all the facts.
  - Read everything in the client’s file so you know as much as possible about the person. Some clients who are ill may not think clearly, for instance, and information from the file may help resolve the problem.
  - Visualize the problem from the other person’s point of view.
  - Write down for yourself some alternative solutions. For example, in a fee dispute you may be willing to refund money or redo a hair analysis at no charge. These are “bargaining chips” that are far cheaper and better than involving attorneys or a court case.
  - Wait until you are calm and collected to set up a phone call or better, an in-person meeting. Often a quiet, sympathetic phone call or short meeting can clear up a dispute with no further problems and no cost to you. Be sure it is at a time when the other person has the time to talk. If you sense agitation in the other party, you may want to suggest a later time to talk.
- **A superb idea from a legal standpoint is to offer anyone who is very unhappy with your services a refund of all fees paid.** This may sound unfair, and it may be somewhat unfair. However, it is far cheaper than paying lawyers and the hassles of legal problems. Especially when a refund is offered quickly when a legal problem arises, it may defuse or stop a possible legal entanglement.
- **A face-to-face meeting can be best if you think you can resolve the problem yourself.** Few people want to hurt another person whom they are with and whom hopefully they like, even if they feel harmed in some way by your actions.
- **I do not recommend letter or email exchanges because they leave a written record, unlike a face-to-face meeting.** Letters or emails are okay, but only if you are careful not to further incriminate yourself.
• If the other person has hired an attorney, try to deal directly with your client or employee. Attorneys are often very sneaky and may elicit information from you that is damaging. With luck, you can resolve the dispute without involving the attorney.
• The same types of steps above can help with problems involving the family of a client, employees, employers and perhaps others.
• If you feel you cannot handle the problem by yourself, contact an attorney or paralegal. Paralegals are often superb. They tend to charge much less than attorneys, and many know the law as well or at times even better than attorneys.

**IF YOU NEED AN ATTORNEY.** The following steps can save you thousands of dollars and much frustration: To help find a competent attorney or paralegal:
• Be careful. Attorneys have a bad reputation as a group because many are incompetent and greedy, and can waste your time and money. Try to get a good referral from a trusted friend or colleague.
• There may be websites that rate attorneys and this could be useful, but is never foolproof.
• Attorneys and paralegals usually specialize. When you call either one, describe your problem generally and ask whether this is a problem the professional handles. If not, ask for several referrals.
• If the attorney or paralegal will handle the case, the next question is whether it can be attended to quickly. Some attorneys and paralegals are booked up for months. Your problem may be able to wait, but some problems require fast action. If a legal professional is booked up for a month, decide if you need another referral or if the problem can wait.
• Legal fees. You should obtain fees during this initial contact, or they may fax you a copy of all fees. Don’t ignore this step. Some attorneys insist on a “retainer”, which is just a way to make you pay some money up front. It is okay if required, but not ideal, since if a problem arises with the attorney, you may have to fight with the attorney for a return of your money.
• If this first phone contact goes well, schedule a consultation to explain your problem fully and obtain a legal opinion. This will usually involve an hour of time and will often cost a few hundred dollars. This is often very worthwhile, even if you end up not using the person.

**Preparing for the initial meeting with a legal professional:**
• Most legal professionals charge by the minute. So prepare carefully for this meeting so as not to waste time. I suggest sitting quietly and typing out 1) your impression of what happened, in one or two short paragraphs, and 2) a numbered list of well-organized, simple questions for the legal professional.
• Make copies for the attorney or paralegal of: 1) the complaint letter, 2) all relevant information such as receipts, client notes, etc., 3) any liability or office insurance policies you have and 4) your list of questions.
• You may want to bring the patient’s file along if you believe that it contains relevant information. However, do not give this to an attorney yet, as it is privileged information and you may not yet have decided if you will even work with this professional.

**At the initial meeting:**
• Begin by handing your brief description of the problem and list of questions to the attorney or paralegal and having him read them. Also, he or she may need to read the original complaint letter.
• The attorney or paralegal then should ask for more information and conduct the meeting.
• If you feel very nervous talking to an attorney, bring a friend who understands your problem.
• Do not omit information that seems damaging to you. If a court case were to occur, such omissions will often show up and can ruin your case.
• Never lie to attorneys or paralegals as this could also compromise your case later.
• Try not to diagnose the problem. Allow the professional to make his own judgment.
• If you tend to talk too much or ramble, bring a friend with instructions to stop you when you ramble. Another idea is to tell the attorney to stop you if you are rambling and wasting time.

Red flags during this meeting:
• Don’t use any attorney who talks about the need to go to court. This is very costly to you and could drag a case out for years. A simple exchange of letters between attorneys or paralegals will solve most problems.
• Beware of any professional – doctor, lawyer, builder or anyone else - who doesn’t speak in simple language and whom you have difficulty understanding. Ask for clarification of words you do not understand. If you feel very confused, this may not be a good match between you and the professional.
• Be sure to find out how much it will likely cost. This depends, of course, on the nature of the problem. While some costs can be estimated, others cannot. If the fee seems unreasonable, let the person know and see what he says. Also, if the fee seems too high, consider obtaining a second opinion from another professional.

After the meeting:
• If you are not happy with the attorney, say thank you and look for another. It is worth wasting a few hundred dollars initially, rather than wasting a few thousand later, and perhaps having a bad outcome.
• If the meeting goes well, do exactly as the attorney or paralegal asks.
• Follow-up. Be sure to keep in touch with your legal professional. It is your responsibility to oversee the resolution of your problem. Attorneys may need reminders, at times.

RESOURCES

The Institute For Justice is a group of attorneys that defend citizens in occupational licensing and other public interest cases. They are very good and do not charge any fees. Contact them at www.ij.org or at (703) 682-9320.

The Coalition For Natural Health is a group that lobbies to help protect your right to practice natural healing arts without a license. I suggest joining this group. Contact them at www.naturalhealth.org or 1-800-586-4264.

ProAdvocate Group offers seminars to help health practitioners set up private membership organizations and does asset protection and tax-related work as well. I have not personally used them, however. Contact them at www.proadvocate.org or (214) 387-0821.

HALT is a consumer group that advises people about attorneys and publishes some excellent books and booklets about using attorneys. Contact them at www.halt.org or 1-888-FOR-HALT. I do not think you should need it, but legal insurance is available. It usually costs less than $30-50.00 per month.
A Canadian gentleman recently emailed a friend with the following message. He began by saying that you should know how health care really work in Canada and went on to say:

- Health care in Canada is not free. We pay a premium every month of $96.00 for Shirley and me to be covered. We also pay much more in taxes to keep the system afloat. I am personally in the 55% tax bracket! A large portion of it goes to health care, our #1 expense.
- When you see the doctor, time is short because it is more important to move as many patients through as possible, for government reimbursement.
- I would not classify what we have as a health care plan. It is more like a sickness diagnosis system. One can get in to see a doctor quick enough so he can tell you that yes, indeed, you are sick or you need an operation. The challenge becomes getting treated or operated on. We have waiting lists, some as much as two years.
- Try to avoid requiring emergency treatment as you may wait hours or even a day or two in the emergency room for treatment. The government saves a lot of money, they say, by cutting back on emergency treatment.
- Shirley’s father cut his hand on a power saw a few weeks ago and it required a splint. To our surprise, we had to pay $125.00 for a splint because it is not a covered expense, plus we paid $60.00 each week for the doctor to check it.
- Shirley’s cousin was diagnosed with a heart blockage. He was placed on a waiting list and died before he could get treatment.
- The government allows just so many operations per year. When the quota is reached, no more operations are done, unless perhaps you go to a local newspaper and plead your case. If you embarrass the government enough, then money may suddenly appear.
- We give free needles to drug users to try to keep them going. However, people with diabetes, who pay much more to the system, have to pay for their needles because it is not paid for.
- A 65-year-old friend needs an operation for a blockage in her leg. However, she is a smoker so they will not do it, although she paid into the system all these years. Now there is talk that perhaps we should not treat obese people, either, because they are a drain on the system.
- Let me see now - what we want in Canada is a healthcare system for healthy people only. That should reduce our health care costs.
- I ask not for sympathy. I just want to make sure that you hear the truth about health care up here. Step wisely and don't make the same mistakes we have.

America is considering more government intervention in health care. Common themes
are that we spend too much, costs are rising fast, there are too many uninsured and the problem is free market capitalism. The answer, some say, is “universal care”. Let us examine this in depth. To solve a problem, it helps to know how the problem developed. Below is a very brief outline of the history of American health care. Books such as Patient Power by John Goodman and What Has Government Done To Health Care by Terry Wasley describe it in more detail.

A BRIEF HISTORY OF THE AMERICAN HEALTH CARE SYSTEM

• **PHASE 1. The free market period - 1776 to about 1910.** For her first 130 years, America had a true free market health care system. This means anyone could offer health care services and the public was free to choose among them. There were few licensing laws because the American founders rejected the ‘guild’ system that existed in England that restricted healing to only one class of men. In that system, one group maintained control through licenses that were usually passed on from father to son.

   In America, anyone who wished to offer services did so. Many systems of care, from dietary therapies and herbs, to hydrotherapy and homeopathy, competed for business. The most effective and least costly methods tended to win out over the others. Throughout this entire time period, America ranked first in the world in health care statistics.

• **PHASE 2. Beginning of the drug medicine cartel – 1910 or so.** In the early twentieth century, the American Medical Association or AMA, joined by the drug industry and others, lobbied every state legislature in the nation to pass medical licensing laws. The AMA is a trade group or union that represents one group of doctors, the allopaths or drug doctors. They strenuously objected to the fact that in America’s free market health care system their members were unable to make a lot of money.

   The intent of their effort to pass licensing laws was to get rid of their competition so their members would earn more money and control the health care system. They succeeded well, riding a wave of increased government power and the promise of “miracle drugs”. As a result, by 1930 or so drug medicine became the only legal method of healing in the United States. Other important players in the cartel are the PMA or Pharmaceutical Manufacturers Association, the AHA or American Hospital Association, and other groups such as the ADA, or American Dental Association.

   • Today, the AMA-led drug medical cartel controls most aspects of American medical care via a web of anti-consumer laws, and especially by the use of licenses to control doctors, hospitals, clinics and laboratories. Meanwhile, their propaganda machine controls the public by instilling fear that without all the licenses, medical care would be more dangerous. In reality, the opposite is true. Doctors and hospitals hide behind their licenses daily. They cannot be prosecuted for idiotic, toxic and dangerous methods as long as they follow “accepted practice guidelines”.

• **Even under cartel control, medical care was still reasonable in cost, however.** The cost of a day in the hospital in 1969 was about $20.00. An emergency room visit was about $5.00.

• **PHASE III. Increased cartel control through socialized medical care – 1970 to the present.** In 1967, Medicare and Medicaid were passed. With these programs, the federal government took over the care of the poor and the elderly. This ended most of what was left of the free market system. Government-run medical systems are called **socialized, nationalized, single-payer or universal health care.**

• **Note that the drug medical cartel firmly controls Medicare and Medicaid reimbursement.** In
other words, these programs mainly pay for drugs and surgery, and drug doctors are the main group of physicians allowed to receive reimbursement.

**How these systems basically work:**

- **In a free market system,** each person chooses from a wide variety of medical services. One pays for them with fees negotiated between the service provider and the patient. The government’s role is only to act as a referee to see that everyone is honest.

- **A cartel-based system looks like a free market.** However, choices are severely limited. Only practitioners who obtain licenses can offer services, and since the cartel controls medical education, they control what is taught in the medical schools. Also, they limit the number of students, which raises the price of medical care.

- **In socialized systems,** such as universal health care, choices are even more limited. In these systems, used in Europe and Asia, the government confiscates the money for medical care from the people via taxes. Funds flow first to a central bureaucracy, where an army of workers, who don’t know you at all, decide which services will be allowed, how much they will cost, and how much of each service each person will receive.

**DID THE FREE MARKET FAIL?**

Of course, the answer is no. The free market health care system in America worked perfectly until it was destroyed by special interests. If there is any doubt, however, study the graph of total US health care costs below. *There was no cost crisis until after 1970* with the passage of Medicare and Medicaid. Today, these are the single most important fiscal problems on the American horizon. The chart below shows clearly that the cause of the cost explosion in medical care was not market failure. It was the exact opposite. It was due to destruction of the free market by government intervention, first with licensing laws in the early 20th century and even more so with the passage of Medicare and Medicaid in the late 1960s.

**WHY DO CARTEL AND SOCIALIZED MEDICAL CARE COST SO MUCH?**

Three basic reasons are: 1) improper methods of care, 2) high administrative costs, including lots of waste and fraud, and 3) corruption. Let us examine each of these in more detail:

**Cost factor #1. Improper methods of care.** Cartel medical care based mainly upon drugs and surgery was perhaps adequate 100 years ago. It is still excellent for surgery and
trauma care. However, it is not very effective for chronic and degenerative diseases. As a result, millions of Americans are developing diabetes, cancer, heart disease, arthritis, autism, ADHD and other serious and costly conditions. The rather simple answers for many of these problems are the subject of this text. Other costs that stem directly from improper methods of care include:

- **Iatrogenic or doctor-caused problems.** By their own admission, drug medicine is at least the third or fourth leading cause of death. Drug side effects, botched surgery, hospital infections and the adverse effects of vaccines add billions of dollars to our medical care costs.
- **Exorbitant legal costs.** More and more people are angry at the medical system and are fighting back legally. This causes very high malpractice costs that are passed on to patients.
- **Defensive medicine.** Doctors and hospitals respond to the malpractice crisis with “defensive medicine”. They perform literally millions of unnecessary tests and procedures, all to avoid lawsuits and satisfy lawyers, rather than for the wellbeing of the patients.

**Cost factor #2. High administrative costs.**
- **Administrative nightmares.** Medicare rules are 133,000 pages. Most doctors, hospitals, laboratories, clinics and others connected with the system must hire specialists just to handle all of the rules and regulations governing these programs, if they want to be reimbursed.
- **Fraud.** Medicare fraud is estimated to be at least 7.5% of the program, and is probably double that number. The temptation for doctors, hospitals and others to abuse the system is enormous because it is hard to police the system from thousands of miles away.
- **Even more paperwork.** Medicare and Medicaid administrators are responding to the fraud problem by demanding lots of extra paperwork from doctors and others. This adds billions more to the cost of these programs, both for the government and for the hospitals and doctors who must comply with the new anti-fraud measures.
- **Medical policing costs.** More money is spent catching and prosecuting the cheaters.
- **Perverse incentives.** Socialized programs, in particular, cause people to change their behavior, wasting much more money. When people do not pay for services directly, they tend to overuse the services. As a result, doctors and hospitals raise their fees because the demand for services increases. This is the law of supply and demand that is not taught nearly enough in high schools. Before 1967, the cost of a doctor’s visit made people think twice about using medical services. The low volume of patients made doctors think twice about raising their fees. When medical care became a “right”, meaning it was made essentially “free” (paid for by taxes), the demand for services exploded and the doctors and hospitals began charging more because they were able to do so. Today, many seniors spend their social outings at the doctors’ offices – Monday is for the eye doctor, Tuesday is for the nose doctor, and so on. Why not? – it’s free.

**Cost factor #3. Corruption.**
- **Centralized power and control breeds corruption.** In any system with centralized control, drug companies, device makers and others only need to bribe or threaten a small number of legislators and regulators in order to control the system for their own benefit. This must be clearly understood. For example, a recent news report indicated that over half the employees at the FDA received perks of some type from the drug industry they regulate. Anyone who thinks the FDA should exist for even another week must read The History Of A Crime by Harvey Wiley, MD, the first director of the FDA. It is a sad tale of complete corruption.
• **Free markets are far more difficult to corrupt.** By contrast, it is very difficult for special interests to bribe many thousands of independent practitioners in a decentralized, free market system of health care.

• **Corruption keeps the cartel in power.** For example, a recent figure was that drug companies spend over $11,000.00 per doctor each year for “advertising”, gifts, vacations, retreats and more. The AMA is also one of the largest lobbying groups in the nation. The cartel also regularly funds phony research to denigrate their competition. Chapter 19 describes two such “studies” that were done to discredit hair mineral analysis.

**What to do.** The founders of America rejected the licensing or ‘guild’ system of medical care that existed in England in 1776. It is time to say no to the medical guild or union system of health care. This would mean breaking up the cartel, so it is a large project that will take some time to accomplish. However, it is the direction to move in, rather than more government intervention that will tend to entrench the cartel even further. The rest of this chapter discusses other important issues regarding medical care.

**HOW TO CARE FOR THE POOR**

**Private welfare.** Some readers will say that we must have Medicaid to care for the poor. From the nightly news, one might think that before Medicaid and Medicare, the poor and elderly just languished in the streets. This is absolutely false. In fact, many were much better off than they are today. Before 1969, in America, they were cared for by private charities such as the Catholic and Jewish hospital systems, and many other groups whose ministry and mission was to care for the sick and dying. These groups collected money from their members and from the community, and operated a network of thousands of hospitals and clinics throughout the nation.

**Public welfare.** Medicaid put most of these out of business and substituted a different method of caring for the poor. Instead of a voluntary, charity-based system, the government forcibly confiscates money for the poor via taxes. Funds are sent to Washington, DC, where they pass through a massive bureaucracy that decides who will receive some tax money, how much each will receive, and for what kinds of services. All those bureaucrats must be paid, plus they all receive generous government benefits such as pensions, and health, dental, and disability insurance. The question becomes, which system is better?

Studies of the best way to care for the poor generally conclude that for the government to do the job, the cost is at least 20% more, and often 1000% more. Some argue that the extra cost is worth it. They say government welfare is fairer and more moral because there is one system for the whole nation. In contrast, private welfare will vary from city to city. However, those in favor of private welfare for the poor answer that there are many other reasons why a private system is much better, besides lower costs. These include:

• **Charity is helpful for both the donor and the recipient.** It builds a spirit of love and cooperation. In contrast, taking money by force through taxes leads to anger and resentment.

• **Care that is provided by people who have dedicated their lives to charity is liable to be superior to when a distant government “mandates” the rules, the salaries and everything else about the system.** Health providers are just 9-to-5 government employees.

• **Local charities are easier to police because the people running them are usually local residents.** If a charity wastes money or even commits fraud, word will spread, donations will
cease and the charity will go out of business. In contrast, inefficient government agencies are difficult to police and do not go out of business if they are found to be corrupt.

- *When any service is viewed as an “entitlement” or “right”, people take advantage of it and lose the incentive to take care of themselves and their health.* They figure, why bother if the government will clean up their messes. With a private welfare system, there is much less entitlement mentality. Thus the poor people receive much more of an incentive to care for themselves better and stay healthy. In economic terms, government welfare tends to cause *perverse incentives*. This means that although we want people to care for themselves, Medicaid and all the other government programs basically gives them the opposite incentive.

**IS THERE A ‘RIGHT’ TO HEALTH CARE?**

The question of a right to health care needs a lot of clarification. The founders of America were extremely interested in this subject. They offered us many insights about rights. Americans enjoy *three levels of rights* and *two basic types of rights*. Each has certain benefits and drawbacks. Also, one must understand that a right must not infringe on the rights of others. Here is very basic information about rights in America:

**The three levels of rights in America:**

- **Natural rights.** These are described in the Declaration of Independence. They come from the Creator of life and are described as “unalienable”. This means they may not be taken away by any government. For this reason, these are the best type of rights. They are stated as the rights to “life, liberty and the pursuit of happiness”. In earlier documents, the latter meant the right to own property. Since one’s body is your most intimate and valuable property, one would think this right includes the right to do what you wish with your body. A right to health care goods and services is not among the enumerated natural rights, however.

- **Constitutional rights.** These are guarantees in the national and state Constitutions and their Bills Of Rights such as the right to “a speedy trial by a jury of one’s peers”. They also include the right to speak freely, worship as one pleases, and many others. It is difficult to amend constitutions, so these rights are fairly safe. There is no right to health care services here.

- **Civil rights.** These are just laws passed by legislatures. They can be revoked at any time by a simple majority vote. These are the least desirable type of rights. However, even they do not include an inherent right to health care goods and services.

**The two types of rights:**

- **Freedoms or negative rights.** These are really prohibitions against government interference with an activity or behavior. Examples of *negative rights* abound in our federal and state constitutions such as the freedom of speech and of worship, the right to bear arms and many others. It is critical to understand how they work. Freedom of speech, for example, means the government may not interfere with your speech. However, it does not entitle one to any goods or services such as a microphone or a podium with which to spread your message. You may own a gun, but no one is required to give you a gun. You may worship as you wish, but no one is required to provide you with a church or even a bible. A *negative right to health care* means the government may not prohibit you from seeking the care of your choice. Sadly, the cartel and government regulations greatly limit American’s choices today.
• **Entitlements or positive rights.** These rights promise some kind of goods or services. For example, the right to a speedy trial guarantees that the government will provide a lawyer, jury, judge, bailiff, court reporter and courtroom time to any citizen who desires it. This is the type of right to health care that many people think we should have.

Let us discuss the critical differences between these two types of rights:

• **Cost.** Freedoms cost the taxpayer nothing. Entitlements are often a bottomless pit of costs. That is why there are very few in our federal and state constitutions. Often entitlements cost whatever the legislatures decide to spend, and it varies from administration to administration. This is very dangerous and has bankrupted dozens of nations. In fact, Medicare and Medicaid are currently bankrupting America. When people get something for free, people tend to overuse and abuse it. It is just human nature.

• **Ease of administration.** Freedoms cost little or nothing to administer. It costs little to guarantee people the right to free speech, freedom to worship as they please, or, for that matter, the freedom to choose their health care. Entitlements, on the other hand, often require large bureaucracies to administer them, with all of the problems discussed above.

• **Perverse incentives.** Freedoms allow and encourage people to care for themselves and solve their own problems with a guarantee that the government will not stop them. For example, health is a very personal matter. Sound public policy would be to create as many incentives as possible that encourage people to care for themselves. Entitlements tend to cause perverse incentives. For example, a ‘positive right to health care’ gives people no incentive to care for their health because they are ‘entitled’ to government care if they become ill. This works against their health in most cases, and further raises the cost of this type of right.

**IS FREE MARKET HEALTH CARE REALLY AN OPTION?**

Would a free market health care system work today? Here are some comments:

• **It worked well in the past.** America had a robust and successful free market health care system until it was destroyed, first by the cartel in the early twentieth century, and even more so by the passage of the socialized medicine programs in the 1960s.

• **Even now, some natural healers operate ‘below the radar’ of the cartel on a free market basis, helping thousands to achieve better health.**

• **The only obstacles to a truly free market are special interests and the government.** Restoring a free market system would mean dismantling the cartel or medical guild system based on licensing. It would also mean repealing hundreds or perhaps thousands of government prohibitions that stifle free enterprise in the health care arena.

**The automobile repair analogy.** Since few people seem to understand how free market health care would work, an analogy with present-day automobile care may be helpful. Somehow, auto care works well with minimal government regulation and without hoards of bureaucrats looking over everyone’s shoulders. Here’s how it works:

• **Many choices.** Some people take their cars to fancy, expensive, triple-certified dealerships for repairs. Others choose local uncertified mechanics. Still other use shade-tree mechanics, which might be the equivalent of alternative healers. No one interferes with these choices and most people are very happy with their choices.
• **Excellent access to care at a reasonable cost.** Since anyone can set up a repair shop, access to care is excellent. Lots of competition helps keep everyone honest, and keeps prices down.

• **Caring for the poor.** Most people manage to find ways to have their cars repaired. Some kind-hearted mechanics offer discounts and some make repairs at no cost. Some of the poor trade for repairs, or read books and do the work themselves. In other words, the system is extremely flexible and creative, unlike today’s medical care system that is so overburdened with silly government regulations that flexibility is sorely limited.

• **Product safety.** Numerous companies have sprung up that rate products and services related to the auto care industry. Consumers Union, for example, tests vehicles and publishes their repair records. Other groups direct people to different types of repair shops, offer helpful hints for caring for your car yourself, compare costs of repair, and so on. As a result, dangerous cars, crooked mechanics, and products that don’t work are generally exposed and removed from the market rapidly. The same would be true in health care if there were more freedom of choice.

• If an auto care rating group becomes corrupt, word may spread and they will often go out of business, unlike the current Food And Drug Administration that just keeps feeding the American people false information because it is bought and paid for by the medical cartel.

For all the billions of miles driven, this loosely organized, free market system works exceedingly well. One may say, but it is only a car and who cares much about a car. I reject this argument. An auto is the second most expensive item in most people’s lives next to their home. We depend on our cars for our safety each day. Cars today are complex pieces of machinery. The principles are identical: leave the marketplace alone and the ingenuity and needs of the people will take care of the service. The internet and other modern communications systems just make markets work better. Please consider this model when thinking of how health care could be in America and around the world.

**Will the profit motive spoil any free market system?** This is the common complaint heard about free market economics. Let us examine it in more detail:

1. Profit is not all bad. It is a way to measure the value of a good or service.
2. Competition in a free market helps control the greed that causes excess profits.
3. The cause of greed is not the marketplace. Greed exists just as much in socialized health care systems. It can be much worse because it is hidden and called “waste, fraud and abuse”. In other words, people still cheat the system. In some ways, it is easier to cheat a large bureaucracy by filling out paperwork incorrectly, than it is to cheat individual consumers.

**WHAT IS REALLY STOPPING A FREE MARKET SYSTEM?**

Having observed our leaders for years, I find their talk of fairness, compassion and caring for everyone is too often a smokescreen. Many are power-hungry and want total control of health care as a way to control the people. Many of them, I think, have a deep disdain for the common people, which is you and I. Actions speak louder than words. Our Congressmen, for example, have a much better health care system than what they are offering the American people. They also have their own retirement system that is far better than Social Security. Until the elites are willing to live by the same laws as they pass for the rest of the people, I cannot trust
any of their promises. Also, I believe that individuals can make far better health care decisions than bureaucrats living thousands of miles away.
Three years ago, Gerard, age 32, suffered from severe food allergies to milk, citrus, dairy, and wheat. He also had extreme fatigue, muscle weakness, hypoglycemia, postural hypotension with dizziness upon standing up. Other important symptoms were hair loss, excessive plaque on his teeth, brain fog, irritability, memory loss, insomnia, intestinal gas and impotence. Gerard’s first hair analysis revealed a mildly slow oxidation rate with a sodium/potassium ratio of 13.5. This is a severe inflammation tendency. His potassium level was 2 mg%, indicating he tended to push himself hard, wearing himself out physically and emotionally. Mercury was elevated at 0.089 mg%, and arsenic and aluminum were also somewhat high.

Gerard has followed a nutritional balancing program as well as he can because he is very sensitive to anything containing manganese or kelp. These sensitivities have slowly diminished. He has not used an infrared sauna or done the Roy Masters meditation. However, he has made steady progress with all of his symptoms. After about three years on a program, he reports that “my energy levels continue to climb above 85%. I'm also starting to feel more optimistic. I’ve just recently realized that how happy I am is a function of what is going on with my minerals, and not with my work. I am just very happy and grateful you’re helping me and the rest of my family.”

A BRIEF REVIEW OF THE TEXT

It is important to view this textbook as a whole system, not as individual chapters. So I am starting this chapter with a brief review of the entire contents of the book.

Section I. The Paradigm Shift. The conventional paradigm or way of thinking in medical care today is based on naming and classifying disease entities. Then the doctor prescribes and treats the entity mainly with drugs and surgery. This approach is costly, toxic and horribly unsafe, as well. It also often does not address the deeper causes of illness.

The new paradigm, which is not really new, but is growing, is based on assessing the body at deeper levels and then renourishing, detoxifying and balancing the body with less toxic and physiological substances. It is very safe, completely preventive, quite inexpensive, and simple in most cases. It requires self-discipline and understanding on the person’s part, and it uses newer assessment methods such as hair mineral analysis, which is not yet an accepted medical test. Dr. Paul Eck brilliantly synthesized many aspects of the new paradigm into a simple package that is the subject of this book. The main features of the new paradigm include:
• **An intense focus on real prevention.** This means a focus on lifestyle, excellent nutrition and screening with tests such as hair mineral analysis rather than the use of less safe preventive methods such as vaccines, water fluoridation, preventive drug use and x-ray exams on a regular basis such as mammograms.

• **Real attention to safety.** This means avoiding, as much as possible, all exposure to toxic foods, chemicals, metals, medical drugs and other toxic products.

• **A blending of ancient and modern, Eastern and Western wisdom.**

• **Incorporating the best of all of the Western healing sciences** from standard physiology and biochemistry to less well-known principles used in naturopathy, chiropractic manipulation and homeopathy.

• **The use of engineering concepts as applied to biological systems such as stress theory and general systems theory.** These are unfortunately not even taught to doctors or to the public, yet they are primary in nutritional balancing.

• **Computer science principles such as cybernetics as applied to biological systems.**

• **Physics principles as applied to biological systems such as metabolic typing or yin and yang.**

This is the basis for an exciting new way to heal mankind’s physical and mental illnesses.

**The basic modalities used in nutritional balancing.** These include lifestyle, diet, drinking water, nutritional supplements, near infrared sauna therapy, coffee enemas, the Roy Master observation exercise and other natural therapies, at times. The following summarizes the importance of each of these.

**Lifestyle.** This is the single most important physical element of the new paradigm. If the lifestyle is not healthful, the body will break down no matter how good the remedies, therapies or other healing methods. The main elements of lifestyle include lots of rest and sleep, and healthful habits of eating, working, thinking, behavior, posture and exercise. Balance in the lifestyle is also an important concept.

**Diet.** The main dietary issues today are 1) how to obtain the most nutrients from an extremely nutrient-depleted food supply and, 2) how to avoid toxic chemical additives and pesticide residues that are in most foods, especially prepared items. Somewhat more esoteric concerns that were not part of Dr. Eck’s work, but I find extremely helpful are 1) how to eat a more yang diet to balance the yin quality of most bodies today, and 2) how to obtain more etheric or subtle energy from food. This has to do with its freshness and perhaps how it is prepared. Also, certain types of foods contain more of this energy, a concept that Dr. Eck knew about. It was one reason he did not care for vegetarian diets, for example, which tend to be lower in etheric energy.

Basic dietary principles that work well for most people are to eat mainly cooked vegetables two or three times daily. They supply the most minerals and other nutrients. Cooking them gently makes the minerals much easier to absorb. An exception is that every adult should drink about 10-12 ounces of carrot juice daily for its high bioavailable calcium content and many other nutrients that it contains as well. Children should have some as well, but less based on their weight. Most people also need some concentrated protein foods twice daily such as meat, eggs or high quality and preferably certified raw dairy products. Beef and wheat are extremely hybridized today, and for this reason not as healthful. Avoid all wheat and spelt products, and most beef. Some are gluten intolerant and need to avoid all rye, barley and oat products as well, for at least a year until their health improves. Excellent
cereal grains include brown rice, blue and yellow organic corn products, quinoa, millet and perhaps a few others. However, some people cannot eat grains without reacting to them. This is temporary and usually goes away as their digestion improves.

All products from pigs can contain parasite cysts and eggs, and are best avoided. Beans, seeds and nuts are generally lower quality proteins, and are best eaten less often. Fruit, fruit juices and all sugars and sweets, such as honey, have very little etheric energy and are very yin in Chinese medical terms and therefore to be avoided. Also avoid all chemicalized and toxic food products, of which there are thousands on the market. This is easy, however, if one chooses only fresh, natural foods grown organically without pesticides on mineralized soils.

Finally, very simple meals of one or two foods only are by far the best way to rest and heal a weak digestive system, which is almost universal. Complex food combinations are far more difficult or impossible to digest well. This may seem boring, but is just a matter of adjustment. It is the way babies and many tribes of human beings have eaten for thousands of years. Fast and slow oxidizer diets is a simple concept, yet most helpful to balance the body in many cases.

**Drinking water.** The water one drinks is a critical health issue. The main issues are 1) cleanliness and 2) its ability to hydrate the body. Other issues such as alkalinity are very minor in comparison. Tap water and well water are extremely contaminated today, in spite of reassurances from public health authorities. Additives such as chlorine, fluoride and aluminum make it much worse. Carbon filters will not remove these toxins or many other toxins very reliably. Reverse osmosis filtration, which removes most toxins, unfortunately damages the water so it does not hydrate most people well. Therefore, we are left with either steam distilled water or a good quality spring water. This is unfortunate, costly and wasteful of plastic bottles in many cases. However, it is much better than drinking other types of water. Dr. Eck did not discuss drinking water too much, as I recall. Alkaline water machines are very dangerous for long-term use and should be strictly avoided.

**Nutritional supplements.** These are needed today to help offset a depleted and toxic food supply, improper diets and eating habits, and often weak digestion that impairs nutrient absorption. Also, food supplements can be used to enhance the stress response and balance body chemistry in very specific ways. They can also help remove toxic metals easily, quickly, deeply and without the need for chelating agents and other less safe methods. Food supplements are an absolute necessity today for almost everyone. In nutritional balancing science, all supplements are chosen carefully based mainly upon a properly performed hair analysis that is interpreted according to Dr. Eck’s method. This is entirely different from the way most doctors use food supplements.

**Infrared sauna therapy and coffee enemas.** I have added near infrared sauna therapy and coffee enemas or colon cleansing to Dr. Eck’s work. I believe he would approve of them heartily. Clients who do these procedures report that they add an entirely new potency and dimension to Dr. Eck’s original brilliant work. Other detoxification methods are either not as safe for extended use, not as potent, or not as balanced in terms of yin and yang. As a result, they are not recommended.

**The Roy Masters observation exercise.** This is another addition to Dr. Eck’s work that I know he would approve of, as he was quite familiar with Mr. Masters. This exercise adds another dimension or element that is balancing, centering, grounding, very yang, relaxing, teaches discipline and will heal the body and mind at even deeper levels if one does it daily for a number of years.
**Other healing modalities.** Gentle chiropractic, bodywork, counseling, biofeedback, acupressure, foot and hand reflexology and a few other natural therapies blend beautifully with nutritional balancing science. Most other nutritional methods and dietary and herbal programs, and most homeopathy do not follow the same principles and will often negate some or all of the benefits of nutritional balancing.

**Section II. The Scientific Basis For Nutritional Balancing.** Seven chapters introduce two dozen basic principles involved with nutritional balancing science. While not essential for daily practice, they are critical to understand the science at the deepest levels and to know how it differs from other healing methods.

Also included are more advanced principles. Nutritional balancing is a total science of human life. This means it includes all sciences known to mankind, from particle physics and mathematics to fractals and systems theory. It also includes such fields as psychology, chaos theory, and other more esoteric sciences that are rarely discussed in medical circles. Nutritional balancing is thus very broad in its scope. One may learn as much as one desires at whatever level one feels comfortable with. The more advanced principles such as pleomorphism and biological transmutation of the elements are only discussed in passing in this text, and may be expanded upon later.

**Section III. Introduction To The Minerals.** Minerals are the basis for all life, and much overlooked by so-called modern medical care that is often not modern at all. Dr. Eck called minerals “the stepchildren of nutrition” because they are so overlooked. Most people are deficient in the essential minerals, and this is the main reason for many of their diseases. Minerals not only affect the physical body, but have powerful effects on the mind and the emotions as well. Five short chapters on minerals only scratch the surface of this enormous topic. Chapter 42 discusses psychological aspects of minerals in more detail. Also, the Mineral Reference Guide in Appendix II contains more technical information about them.

**Section IV. Hair Mineral Analysis.** This controversial medical test is the basis for Dr. Paul Eck’s research and for all of nutritional balancing science at this time. He commented to me on several occasions that he could not believe how much information the test provides when interpreted correctly, and how complex the interpretation can become.

Among the doctors who offer hair mineral analysis, most use it only to detect toxic metals or to do replacement therapy. This is almost a complete waste of the test in our view. Understanding this clearly is critical or one will miss the greatest benefit of the test. This is to assess the stress response of the body, the oxidation type, and many other facts that cannot be gleaned from other types of tests that I am aware of. Practitioners will be tempted to slip back into the replacement therapy mentality, or worse, just looking for toxic metals that everyone has.

The text discusses about 35 patterns revealed on hair tests. A few are new, but most are Dr. Eck’s discoveries. More combinations are possible, but the ones discussed are the most important that I have encountered. Retests are also discussed in some detail.

**Section V. Physical Health Conditions.** Most common health conditions are discussed very briefly in this section of the book. Among the most important chapters are those concerning vitality, adrenal and thyroid glandular activity, carbohydrate tolerance, cancer and nutritional
balancing through the life cycle. This section is kept short, as it could easily fill the entire book. Updated articles at www.drlwilson.com expand upon many conditions.

Section VI. Mental, Emotional, Sexual and Spiritual Aspects of Nutritional Balancing. This section could also easily be expanded to fill the entire book. It is one of the most fascinating areas of nutritional balancing research. Almost all the material is Dr. Eck’s amazing research on the roles, interactions and effects of individual minerals and mineral patterns on mental and emotional health. I added the concept of classifying mental illness according to the evolutionary levels of brain functioning to make them easier to comprehend. The major levels are a mechanical or ‘computer’ level, an ‘animal’ or emotional level, and a human or ‘tuning’ level. Some pathologies also involve combinations of these levels. Such a classification system would simplify mental illness and lead to many more cures for common mental illnesses.

Nutritional balancing also focuses on enhancing mental and spiritual development. This is unique in that it is not about symptom removal at all. However, most people would like to think and remember more clearly, and enhance all their cognitive abilities. Mental development also has to do with developing the subtle human bodies, an area that is esoteric but written about by many authors, particularly in the Oriental nations. Removing toxic metals at the deepest levels with nutritional balancing appears to enhance the overall development of a human being.

Section VII. Therapeutics and practical aspects of nutritional balancing. The weakest area of this volume is in therapeutics. This is done intentionally at this time to preserve Dr. Eck’s work in its original form as much as possible, and to keep the book from being twice its present size. Many well-meaning practitioners believe they can improve upon Dr. Eck’s work and still call it nutritional balancing. Instead, I would like practitioners to use the supplement programs designed by Dr. Eck himself. These are the most effective, convenient and least costly, in my experience so far.

Retracing is given its own chapter, as it is one of the most important concepts in nutritional balancing science. It is a mental and spiritual concept as well, and retracings occur in these areas also when a person follows a properly designed nutritional balancing program.

Other chapters discuss how to run a nutritional balancing business, and legal aspects. These may seem odd to include in a technical book. However, many excellent practitioners are not well-versed in these areas and many questions arise as to how to promote and conduct a practice in a safe, practical way. Dr. Eck was an excellent businessman with very high integrity, and this factor of success should not be overlooked.

The chapter on health care in America is needed because the ignorance in this area, even among natural health practitioners, is appalling. One rarely hears the real history of government intervention in the area of health care for the past 100 years in America. It destroyed a very safe, inexpensive and effective health care system, substituting a complicated, highly corrupt and ineffective, top-down, bureaucratically-run government welfare system.

SUGGESTIONS FOR LEARNING NUTRITIONAL BALANCING

Nutritional balancing is a newer healing science that is not easy to learn from scratch. Learning it well took me at least four years. I was working at it full time, with no distractions due to offering other therapies. I also had a background in nutrition and a medical degree. To
shorten the time needed to learn it, the following may be helpful:

- **Begin by focusing on the levels and ratios of the macrominerals – calcium, magnesium, sodium and potassium.** Work on recognizing and learning how to calculate the oxidation type and rate, and the meaning of the major ratios involving these minerals.
- **Next focus on the patterns involving the macrominerals, starting with patterns that involve only a single mineral, such as the meaning of a high sodium or a low calcium.** The other patterns will be much easier to understand once you really understand the single mineral patterns.
- **Next, pay more attention to the trace minerals, particularly zinc and phosphorus.** You will begin to realize how important these can be. Remember that the zinc and copper levels are not good guides for zinc and copper supplementation.
- **Lastly, pay attention to the toxic metals.** These are important for health, but not as important for test interpretation as the macrominerals, which are more involved in the stress response.
- **Focus first on the physical aspects of the minerals before delving into the psychological aspects of the minerals.** After that, you may wish to explore more of the sexual and spiritual aspects of the minerals and mineral patterns.
- **Review as many hair analyses as possible.** No amount of book learning will replace the experience that is gained by actually reviewing client charts and working with clients.
- **Ask for help.** Learning this science on your own is difficult, if not impossible. I called Dr. Eck on a weekly basis or more often when I was learning. Currently, I offer training for practitioners by telephone or email. If I am too busy, it will be with one of my advanced students, at no charge for those using Analytical Research Laboratories for hair analysis.
- **Learning nutritional balancing is like learning a new language.** It becomes much easier with some practice.
- **Go forward gently.** This book contains enough material for a post-graduate degree. Also, many of the ideas such as systems theory are unfamiliar to most people. The volume of information on one hair mineral analysis is actually overwhelming. So do not become frustrated or discouraged, although this can occur, at times, when learning any new science.

**PITFALLS WHEN LEARNING NUTRITIONAL BALANCING**

Common obstacles to learning this science are:

- **Forgetting the principles.** With nutritional balancing, the principles are absolutely central and must not be ignored.
- **Allowing yourself to drift away from the whole systems thinking.** Systems theory and stress theory, for example, are the most important single concepts in this science.
- **Feeling you should be able to learn it in less than several years.**
- **Falling into ideological thinking such as favoring vegetarian diets, particular foods or specific supplement companies.**
- **Not following the step-by-step algorithm in Chapter 23 to interpret the hair analysis.**
- **Drawing conclusions too quickly.** This is normal when starting out, to some degree.
- **Unwillingness to be guided.** Some practitioners don’t want to take help for various reasons. This book is designed to make it easier to learn the science. However, many situations arise in which a more experienced person can be of great help, and help is available.
• **Combining therapies.** Adding or substituting other dietary regimens, supplements, herbs, bio-identical hormones, and most homeopathic remedies usually slows or can even negate the nutritional balancing program. This is unfortunate, but true.

• **Falling back into allopathic medical concepts. Among these are:**
  
  *Diagnosing diseases.* Hair analysis is best for assessing the stress response. It is not intended as a way to identify diseases, though it can, at times, help greatly with this.

  *Expecting fast results.* Most people have latent or sub-clinical cancers, early heart disease or diabetes, or many other subclinical conditions. A nutritional balancing program will often remove these health conditions before it tackles more superficial symptoms such as fatigue or headaches. This is actually a great benefit of a whole systems approach to healing. However, it slows symptomatic correction at times, and this must be clearly understood.

  *‘Treating’ hair mineral levels, ratios or patterns.* For example, please do not just ‘lower copper’. That is not nutritional balancing science, but rather an allopathic and more symptomatic approach. Instead, always correct the stress response and all the mineral levels, ratios and patterns will tend to improve. The only time one should focus on copper, mercury or any other single mineral, ratio or pattern is if you believe it is causing severe symptoms that must be addressed at once. It is true that Dr. Eck focused on copper, at times, but he generally preferred to focus on the entire chart rather than any single mineral.

  *Making quick comparisons between hair and other types of tests.* These are usually far more difficult than one thinks. The hair analysis measures a completely different body compartment than do blood, urine or saliva tests. As a result, it provides very different types of information. For example, correlating the stress response with allopathic medical tests is quite difficult in most cases.

For assistance in finding a practitioner who offers nutritional balancing, see the link ‘How To Find A Practitioner’ at [www.drlwilson.com](http://www.drlwilson.com). For assistance in learning nutritional balancing, see the ‘Training’ links at the same website.

### RESOURCES FOR NUTRITIONAL BALANCING PROGRAMS

**An equipment list:**

• **Electric food steamer or stove-top steamer basket.** Manufacturers of the electric steamers include Oster and perhaps others. This is not really needed if you steam in a saucepan.

• **Air ozonator/ionizer:** These are helpful for everyone to provide more oxygen. Place the unit in the bedroom, turned up about half way and sleep in the ozone, which is very safe despite what some people are saying. Two brands are Breathe Fresh and Atlas 300A (2016), available through Amazon.com.

• **Hydrogen peroxide, 35%, food grade:** www.pureH202forhealth.com or (352) 563-5400.

• **Steam mop.** These are sold at many stores. They clean with just pure steam.

**Resources available at [www.drlwilson.com](http://www.drlwilson.com):**

• Updates and corrections for this book.

• Over 5000 pages of companion material about nutritional balancing science and related topics. Many topics in this textbook are discussed in more detail.
• Information about training in nutritional balancing science.
• 20 or so compact disc programs on various health-related topics.
• About 8 audio interviews with the author on various health-related topics.
• A directory of practitioners. These are the only nutritional balancing practitioners I can recommend, as they communicate frequently with me or one of my advanced students.
• A directory of sauna builders who will sell reddish heat lamp saunas.
• Free plans to build a reddish heat lamps sauna.
• Companion books to this textbook:
  1. Sauna Therapy. Sixteen chapters discuss how infrared saunas improve health, protocols and cautions with saunas, construction and design plans, and several chapters on health conditions such as infections and cancer. Also includes many testimonials, many references, how to use saunas with hair analysis, and much more. 167 pages.
  2. Legal Guidelines For Unlicensed Practitioners. Fifteen short chapters discuss many legal aspects of operating a nutritional balancing or other healing practice. Though written for unlicensed practitioners, most of the information is excellent for licensed practitioners as well. Contains sample disclosure, disclaimer and consent forms. 136 pages.
  3. The Real Self. Forty spiritual principles of living are organized into seven sections to help one clear negative thinking and negative emotions from the body and mind. 102 pages.
  4. Books by Other Authors about nutritional balancing.

Resources available from Analytical Research Laboratories include:
• The Interpretation Profile #2. A 12-15 page report of interpretation material regarding a hair mineral analysis, with paragraphs keyed to the mineral levels, ratios and patterns. Also offers a suggested diet, a suggested supplement program, lifestyle modifications, disease trends and much more. I suggest this for everyone, as it is an excellent companion to the basic hair mineral analysis.
• The Healthview Newsletter, #27-29. This is 35 years old, but is one of the most readable and interesting interviews ever conducted with Dr. Paul Eck. 70 pages.
• A number of articles about nutritional balancing are posted on the ARL website, www.arltma.com.
• Older seminars on cassette tape with Dr. Eck and this author. These are somewhat outdated and are educational seminars presented between 1982 and 1995 on various topics related to nutritional balancing science. They focus on different illnesses, and many include reviews of hair analyses. Some also featured other doctors and other interesting material.

OTHER PRODUCT RECOMMENDATIONS

The following products appear to be quite safe, and can enhance a nutritional balancing program and perhaps just enhance one’s overall life. This list will be expanded, hopefully, in the future. Its importance is that some seemingly ‘all-natural’, ‘organic’, ‘green’ or ‘safe’ products are not as good as claimed, and many contain some toxins. As a general principle, the fewer cleaning and body care products one uses, the better.

• The Fridge Freshener: This simple device will save money and shopping time by keeping vegetables fresh much longer. It is available from www.naturesalternatives.com or from 1-877-877-0747 or 1-623-873-8080 in Arizona. It is also at www.purpleplates.com.
- **Q-Link.** This is one of many devices sold to reduce the effects of electromagnetic stress. This one definitely helps, perhaps by strengthening one’s own electromagnetic field. Available at www.Amazon.com or from www.qlinkproducts.com or 1-800-246-2765.

- **Hydrogen peroxide test strips:** Bigbrandwater.com or (888) 426-9488 or (818) 340-7258.

- **Steam mops.** Several brands of these are available. They clean deeply with no chemicals.

- **Healthful shampoos:** Bentley Organic shampoo – all varieties; Jason (brand) Tee Tree Shampoo and Conditioner, Dandruff Relief Shampoo, and Thin-To-Thick Hair & Scalp Therapy. For babies or anyone, for that matter, very safe products are made by Burts. They include Baby Bee Talc-free Dusting Powder, Buttermilk Bath Soak, Bubble Bath, and Shampoo and Wash.

- **Healthful hair conditioner:** Organic Excellence Chemical-free Mint Conditioner; and Kiss My Face Hold Up Styling Mousse.

- **Non-toxic soaps:** Grandpa’s Pine Tar Soap and Black African Soap are excellent.

- **Less toxic toothpaste:** Trader Joe’s Antiplaque Toothpaste and others free of sodium lauryl sulfate.

- **Less toxic mouthwash:** Tom’s Spearmint or Peppermint Natural Cleansing Mouthwash and others free of sodium lauryl sulfate and free of alcohol, which is quite irritating to the gums.

- **Less toxic body lotions:** Alaffia Body Lotions – many scents.

- **Less toxic cosmetics:** Dr. Hauschka products (but not the Dr. Hauschka shampoo). These are quite costly, however. Others may be okay, but read labels carefully.

- **Healthy bath salts:** Masada Unscented, Lavender, and Rain Forest Scented Bath Crystals or Salts.

- **Citasolv Natural Cleaner and Degreaser.** Very good, although it contains some chemicals. Citrus extract has a nice effect to freshen and clean. Use it everywhere, even in the laundry. Many so-called “green” products are, in fact, more toxic in some ways.

- **www.waterpoweredcar.com.** Interesting website that teaches how to run your car on water.

- **Natural baby formula:** See *Nourishing Traditions*, by Sally Fallon with Mary Enig, PhD.

### CONCLUSIONS TO DRAW FROM THIS TEXT

A book this large may raise more questions than it answers. However, a few conclusions that one may draw from the material presented are:

- **Life and health are precious gifts.** The complexity of the human body and mind are simply astounding. If more people understood this, they would undoubtedly treat the body and mind with more honor and care.

- **The human body, its ailments and its healing, can be extremely complex.** Many people search for the final answer to disease in a therapy, a healer or a special product or technique. There is no such thing, in my view. Nutritional balancing uses a combination of diet, lifestyle, carefully chosen supplements and other procedures to gently balance the body. This is often enough to bring about healing at the deepest levels.

- **Healing is unlimited.** By continually balancing and strengthening body chemistry for a number of years, much can be done with even very serious health conditions.

- **Healing can be done precisely in many cases, but certainly not all.** The proper use of hair analysis and nutritional balancing science can simplify and enlighten us tremendously about the stress response, the oxidation rate and much more. This can facilitate the design of
healing programs that seem quite simple, yet are often very effective. At times, however, other subtle and mysterious influences can overwhelm our best efforts because life is far more complex than any system of healing. Please recall this at all times in order to stay humble and avoid making any false claims and other mistakes.

- **Truth should converge.** This was a key principle of Dr. Eck’s. It means that all methods of healing should produce the same end result if they truly heal the body at the deepest levels.

- **Love heals all things.** This theme was mentioned in Chapter 2. To repeat the principle, a great deal of self love is helpful or even required for the most successful healing, especially with a program such as this one that requires plenty of self-discipline to maintain a healthful diet and lifestyle.

- **Young women, even more than young men, are in very poor health today, and since the women will bear the next generation of children, we are all in trouble.** This theme is emphasized throughout this text. This needs to be repeated endlessly until the message reaches all young women, along with their parents, friends, partners, and all health authorities and national leaders as well. The present situation in the health of young mothers-to-be is quite unsustainable. Their nutrition is very poor and their drug use is increasing. Foolish medical authorities are planning even more vaccines for silly things such as to prevent a few cases of cervical cancer that are easy to prevent in safer ways that build up one’s health instead of poisoning the body further.

  All these factors must be changed. Otherwise, the number of developmentally delayed autistic, ADD and otherwise unhealthy children will just keep increasing until few healthy babies will be born at all. This is the most severe health tragedy of the century, so far. Yet it is one that is easily rectified by paying attention to the causes of the problem, as discussed in these pages.
APPENDIX I.

GLOSSARY OF TERMS AND CONCEPTS

Acetates - These are among the most energy-rich compounds found in foods. They are found mainly in fats and in alcohol, and are needed more by fast oxidizers, according to Dr. Eck’s research.

Adaptation - This is the process by which the body constantly alters many parameters such as its temperature, glucose level and mineral levels to maintain itself optimally in response to stress.

Adrenal Burnout - When the body is no longer able to adapt or mobilize its defenses against stress, the condition is called adrenal burnout. It is usually a severe derangement of the adrenal glands. People in burnout are often tired even after many good night's sleep.

Aldosterone - Aldosterone is the major pro-inflammatory hormone produced by the adrenal cortex. It causes sodium retention and elevates sodium on a hair analysis.

Antagonistic Minerals - These are minerals that compete for absorption or utilization in the body. Common antagonisms among minerals include: copper and zinc, calcium and magnesium, and zinc and cadmium.

Anti-Inflammatory Hormones - Cortisol and cortisone are the main anti-inflammatory hormones produced by the adrenal cortex.

Biochemical or Adaptive Energy - Energy is a key concept in healing. Biochemical energy is the energy generated within each body cell in the glycolysis and citric acid cycles. The final stage of energy production results in production of ATP (adenosine triphosphate).

Biological Transmutation of the Elements - This theory states that living organisms can transform one element into another at low temperature and pressure. It is not well-accepted in the scientific community. However, simple experiments performed by Dr. Louis Kervan and others would seem to be irrefutable evidence of its truth.

Biounavailability - This is the condition in which a mineral is present in the body, but cannot be utilized. Causes for biounavailability include deficiency of a binding protein, molecular configuration of the element, valence of the element, or lack of a releasing factor or transport factor. When an element is biounavailable, one may experience symptoms of deficiency of that element as well as symptoms related to toxicity at the same time.

Breakthrough disorders - Mental and emotional disorders in which an imbalance, usually at a lower level of brain functioning, affects or ‘breaks through’ to a higher level of brain functioning.

Catecholamines - These are a group of powerful stimulatory (sympathetic) neurotransmitters that include epinephrine or adrenalin, norepinephrine or noradrenalin, and dopamine.
Ceruloplasmin - This is one of the main proteins that binds and transports copper in the blood. It is produced in the liver under stimulation from the adrenal glands. Without adequate ceruloplasmin, copper may become biounavailable and toxic. Metallothionine and albumin are other serum proteins that bind copper.

Coffee Enemas - Coffee can be implanted in the rectum and retained for 10 to 15 minutes in order to absorb it into the liver. The technique has been used for over 100 years to assist liver detoxification and cleansing of the large intestine. The man who popularized them was Max Gerson, MD, who wrote *A Cancer Therapy – Results Of Fifty Cases*.

Colonic irrigation – This is an ancient procedure in which water is introduced into the rectum in order to clean the large intestine or colon. It is safe, painless and often helpful for people today. It is administered by a trained colonic therapist using disposable equipment and a special machine that can be adjusted to monitor the water temperature, pressure and, at times, add items to the water to facilitate the cleansing of the colon.

Congenital - This word means present at birth. It generally refers to any condition or nutritional imbalance that develops during pregnancy, but not those that are genetic in origin. For example, cadmium toxicity passed to a baby from its mother through the placenta is an example of a congenital condition.

Cortisol - Cortisol is the major glucocorticoid hormone secreted by the adrenal cortex. It serves to raise the blood sugar level, convert starch and protein to sugar, and is a powerful anti-inflammatory hormone, among other functions.

Cybernetics - This is the science of communication and control in complex, self-regulating systems. It was first elaborated for computer systems and automatic radar-guided weapons systems in World War II. However, we use its terms daily such as ‘feedback loops’ and ‘vicious cycles’. Its principles are central to understanding nutritional balancing science.

Defender - A defender is a mineral whose level remains high, low or normal on a hair analysis because it is defending or maintaining another mineral level or ratio.

Diencephalon – This is the brain stem or ‘old brain’ or ‘animal brain’. It regulates the emotions and many automatic functions in the body.

Displacement - This can have two related meanings. 1) It is a process whereby one element in the body can replace another in enzyme binding sites or in organs. For example, copper can displace zinc and iron in the liver. Cadmium can displace zinc in the walls of the arteries. Lead may displace phosphorus in some sites. 2) It can mean a mineral on a hair mineral test that appears higher than it really is because another mineral has displaced it upwards. For example, a phosphorus level often looks normal, but when lead is eliminated from the body, the phosphorus level drops because lead was displacing the phosphorus.
Detoxification - This is a normal and essential function of all living organisms. In most people, this function is sluggish thanks to improper food, fatigue, and overactivity of the sympathetic nervous system. Enhancing detoxification is a primary goal in nutritional balancing science.

Electrolytes - These are the major minerals in the blood such as calcium, magnesium, sodium and potassium. Chloride, sulfur and phosphorus may also be included in this group of elements. These are similar to the macrominerals, a word used because they are the most plentiful minerals in the body.

Energy Pathway - The energy pathway is the series of steps involved in the production of energy from food. They include ingestion, digestion, absorption into the liver and body cells and conversion to ATP in the Krebs and glycolysis energy cycles.

External Stress - This is stress caused by factors outside the body. These may include physical factors (heat, cold, noise), and social, financial, occupational, family-related or other stressors.

Fast Oxidation - An early homeostatic state found mainly in young children in which adrenal and thyroid activity tend to be above the ideal level. It is associated with the alarm stage of stress in the stress theory of disease. Hair analysis indicators are a calcium/potassium ratio less than 4:1 with a sodium/magnesium ratio greater than 4.17:1.

Feedback Loops - These are complex communication links used in complex, self-regulating systems that enable an organism or machine to regulate itself. Nutritional balancing seeks to re-establish the normal feedback systems of the body to promote a return of health.

Fight-or-Flight Reaction - This name is given to the series of physiological changes that occur in the body in response to a threatening situation. Adrenal and thyroid gland secretions increase, resulting in an increase in the pulse, blood pressure, glucose levels and speed of reflexes. Blood is shunted to the muscles and brain, and away from the digestive and eliminative organs. The entire body is placed in a state of hypersensitivity and readiness to fight or run.

Functional Medicine – A method of healing aimed primarily at restoring normal functioning of the body, rather than chasing symptoms or killing germs, for example. Nutritional balancing is very much a functional medicine approach to health.

General Adaptation Syndrome or GAS - The sequence of stages and events that an organism moves through as it responds to stress. Dr. Hans Selye, MD discovered that the stress response is non-specific, meaning that it is similar no matter what the cause of the stress. He described the stages as the alarm, resistance and exhaustion stages of stress or adaptation.

General Systems Theory - A set of principles elaborated early in the twentieth century to help describe and work with complex systems. The human body is one such system. Nutritional balancing science uses these principles to carefully balance and alter body chemistry to restore health, often without needing to address particular symptoms.
Glucose Tolerance Test or GTT - This is the standard blood test used to determine sugar tolerance. The patient drinks a sugary liquid and then a blood sample is taken every hour for 3-5 hours. To be most accurate, the test should be performed for five or six hours, not three hours. Ideally, insulin levels should be measured along with glucose levels. A finger-stick glucose determination is not reliable because sugar levels can fluctuate rapidly.

Glycogen - This is a starchy substance that is the form in which excess glucose is stored in the muscles and liver.

Glycolysis Cycle - The 10-step glycolysis cycle is involved with the breakdown of glucose into simpler compounds, mainly pyruvate or lactate. B-complex and other vitamins and minerals are required in the glycolysis cycle. If these are deficient, the cycle may function poorly and energy output will decrease.

Homeostasis - This word, taken from cybernetics, means a state of equilibrium. Homeostatic states are states of balance or equilibrium that our bodies maintain in order to function and respond to stress from within and without. The oxidation types and the stages of stress are homeostatic states. The goal of nutritional balancing is to move the body from less desirable homeostatic states to more desirable and higher energy homeostatic states.

Hypoglycemia - The medical definition is low glucose in the blood. Chapter 29, however, defines it more broadly as any problem in the energy pathway or oxidation rate that impairs glucose metabolism at a cellular level. This may be due to low sugar in the blood, but has many other causes as well.

Internal Stress - This is stress caused by factors within the body. These factors might include fatigue, infections, nutrient deficiencies, toxic metals and chemicals, or structural problems. Others may be emotions such as fear, worry, anger or grief. Others are attitudes such as hatred or paranoia. Intention can also cause or reduce stress.

Inversion - A term Dr. Eck used to mean a low sodium/potassium ratio (less than 2.5:1).

17-Ketosteroids - These are breakdown products found in the urine used to measure adrenal gland activity. These can be tested in the urine. The correct way is to test for them after giving a loading dose of ACTH (adrenocorticotropic hormone).

Krebs or Citric Acid Cycle - This is the intra-cellular cycle in which fats and amino acids are converted to ATP or adenosine triphosphate. Eighty percent of one's energy is produced in the Krebs cycle.

Macrominerals - These are the most plentiful minerals in the body. They include calcium, magnesium, sodium, potassium, and perhaps also sulfur and phosphorus.

Meditation – A general word used to describe many types of mental exercises. They might include visualization, imagery, use of chanting, prayer, mantras, affirmations and other methods. Nutritional balancing only recommends a specific type of non-religious mental exercise that is a
dual-focus observation exercise taught by Mr. Roy Masters of the Foundation of Human Understanding. This is available on a CD from www.drlwilson.com or one is at www.fhu.com.

Metabolism - This is the sum total of the chemical reactions that take place in the body. Metabolism is divided into two parts, anabolism (building up of body tissues) and catabolism (breaking down of body tissues).

Metallo-enzymes - These are enzymes that require minerals for their activation, inhibition, regulation or as a facilitator or actual component of the enzyme.

Mitochondria - These small structures within each body cell are the site of energy generation within the cell.

Mixed Oxidation - This is a temporary, transition and unstable state of body chemistry. Mixed oxidation is defined as a hair calcium/potassium ratio greater than 4:1 and a sodium/magnesium ratio greater than 4.17:1, OR a calcium/potassium ratio less than 4:1 and a sodium/magnesium ratio less than 4.17:1. In mixed oxidation, the hair analysis ratios indicate that the thyroid gland is overactive and the adrenal glands are underactive, or vice versa.

Orthomolecular Nutrition - This term refers to supplementing the body with the exact amount of a nutrient that is required, rather than a set standard such as the RDA or MDR for that nutrient. It was coined by Linus Pauling, PhD. Nutritional balancing is a type of orthomolecular approach, though it is based on correcting the stress response and balancing mineral levels and ratios, rather than on symptom correction.

Oxidation – This means to combine with oxygen, or perhaps to burn.

Oxidation Rate - In this book, the oxidation rate refers to two ratios on a hair analysis in which the hair is not washed at the laboratory. The two ratios that determine the oxidation rate are the calcium/potassium and sodium/magnesium ratios. See Chapters 12 and 13 for more details. Other authors may define the oxidation rate completely differently.

Parasympathetic Nervous System - This is a branch of the autonomic nervous system that is associated with rest, relaxation and regeneration of the body. It may be called the 'nurturing' or 'nourishing' nervous system, as compared with the sympathetic, or fight-or-flight system. It activates the digestive, eliminative and immune responses of the body, among other things.

Pleomorphism - a theory of disease that postulates that cells can move between about 15 stages from normal to degenerated bacterial and fungal forms, depending on the terrain or cellular environment. The theory is better known in European homeopathy and among those that use live cell microscopy. Nutritional balancing supports this theory and may, in fact, help elaborate the biochemistry of some of the stages of cellular degeneration.

Preferred Minerals - These are the ideal minerals for each metallo-enzyme in the body. The concept of preferred minerals is essential to understand how toxic metals cause disease and what
to do about them. Nutritional balancing is aimed at replacing toxic or less-preferred minerals with more-preferred minerals in enzyme binding sites.

Psychological Override - This occurs when a person's stress level, attitudes, emotions or intent override or negate our best efforts to heal the body with nutritional balancing.

Replacement Therapy - The concept of supplementing mineral levels that read low on a hair or other type of test, while avoiding giving or even ingesting minerals that read high on the test. This is the most common way doctors use hair tests and blood tests. Dr. Eck found it works poorly, when it works at all. It does not take into account systems principles and the complex nature of the body’s mineral balancing system.

Retracing - This is a process whereby old symptoms or conditions are reactivated and resolved during the process of healing. Retracings are also the temporary flare-up of old conditions or new symptoms that can occur with deep healing of the body. For example, chronic infections may go through an acute stage before they are resolved, causing pain, redness or fever. Emotional retracting also occurs with temporary flare-ups of old feelings or memories before they are released. Other words for this process are healing reactions, healing crises, flare-ups, aggravations, catharses, purification reactions and the reversal process.

Sauna therapy - This simple, safe and powerful healing modality is extremely useful to remove toxic metals, toxic chemicals and infections from the body. Near infrared light sauna therapy, in particular, also greatly increases circulation, assists skin detoxification and has dozens of other beneficial effects. This author has written a separate book and several articles about this topic.

Slow oxidation - This is defined in nutritional balancing science as a hair calcium/potassium ratio greater than 4:1 and a hair sodium/magnesium ratio less than 4.17:1. Hair must not be washed at the laboratory for accurate assessment. Other researchers may mean something different by the term. Slow oxidation is associated with sluggish adrenal and thyroid glandular activity at a cellular level, and a tendency for an overall parasympathetic state of body chemistry due to exhaustion of the sympathetic system. It is also associated with the exhaustion stage of stress or perhaps a resistance stage of stress in mild cases.

Stages of Stress - Hans Selye, MD discovered that living organisms pass through several stages as they respond to stress from within and from outside. These stages he called the alarm, resistance and exhaustion stages of stress. This is a part of the stress theory of disease.

Stress - Stress is the response of the body to stimuli. Agents that cause stress are called stressors. Stress is often assumed to be harmful, but this is not always true. Exercise stresses the bones and muscles, and keeps them strong. Nutrient therapy can cause positive stress on the body. Self-discipline causes a positive stress that builds health and character. See Chapter 11 for more details.

Sympathetic Nervous System - This branch of the autonomic nervous system is involved with and causes a fight-or-flight response. It stimulates the adrenal and thyroid glands, and shunts
more blood to the muscles and brain. It also overrides the parasympathetic system and shunts blood away from the digestive and eliminative organs such as the intestines, liver and pancreas.

Synergistic or Synergetic Minerals - These are minerals that cooperate together or whose levels tend to move together on a hair test. Examples of minerals that may interact synergistically include calcium and copper, or calcium and magnesium. NOTE: under different conditions, the same minerals may act as synergists or antagonists.

System - A system is a group of items, each of which affects all the others. The body is a particular type of system called a complex, self-regulating, closed system. The laws governing systems have been elaborated in general systems theory. These are discussed in Chapter 8.

Systems Theory - see General Systems Theory

Toxic Minerals - These are minerals that have no known function in the body, and are usually very harmful to the body. They include lead, mercury, cadmium, aluminum, beryllium, nickel, arsenic and a dozen or so others.

Trace Minerals - These are essential minerals that are needed in small quantities in the body. They include zinc, copper, iron, manganese, chromium, selenium, silicon, iodine, cobalt, lithium, molybdenum and others.

Tuning disorders - These are mental and emotional disorders that appear to arise because the mind or brain can ‘tune’ itself to various dimensions and frequencies. This may result in hallucinations, delusions, schizophrenia, narcissism or psychopathic tendencies.

Vicious cycles - These are feedback loops in which a change in one direction feeds back and results in even more change in the same direction. Vicious cycles destabilize the body and lead to death unless they are interrupted. They are also called positive feedback loops in cybernetic theory. Ending vicious cycles and restoring normal feedback loops in the body is a prime objective of nutritional balancing science.

Yin and Yang - In Taoist and Chinese philosophy, these are the complementary opposites that create all else in the physical world. The idea is also in the Hebrew bible in Genesis, Chapter 1, when it states that God created the heavens and the earth, the land and the sea, light and dark, male and female. From this came all else.

Yin and Yang refer to basic tendencies and states of matter such as expanded and contracted, centrifugal and centripetal, hot and cold, or male and female. The concept of yin and yang can be applied to our food, our lifestyles, rest and activity, fast and slow oxidation, and many other aspects of life. It is one of the most vital concepts used in nutritional balancing. However, Dr. Eck did not speak of it much, except in regards to the oxidation rate.
APPENDIX II.
THE MINERAL REFERENCE GUIDE

THE MACROMINERALS

CALCIUM

GENERAL
Divalent cation, extremely alkaline-forming, main structural element in the body, extracellular element, found with magnesium that helps keep it in solution.

SOURCES OF CALCIUM
Seafood - sardines, caviar, smelt
Animal products - egg yolks, bone soup
Nuts/seeds - almonds, sesame seeds, filberts
Vegetables - carrots, carrot juice, kale, collards, mustard greens, turnip greens
Dairy - raw, certified cheeses, milk, yogurt, kefirs (pasteurized or homogenized is not nearly as good)
Miscellaneous - molasses, kelp, brewer's yeast, torula yeast. Hard water contains more calcium, but this does not raise hair levels, as a rule.

ROLES IN THE BODY
- Bones and teeth - 99% of our calcium is found here.
- Cell Membrane Regulation - affecting cell permeability, muscle contraction and nerve impulse conduction.
- Body Fluid Regulation - affecting blood clotting, acidity and alkalinity.
- Regulation of cell division
- Regulation of hormone secretion - insulin

FUNCTIONS OF CALCIUM
Circulatory - excites the heart, constricts small blood vessels
Excretory - inhibits water loss
Digestive - in excess, is constipating
Nervous - slows nerve impulse transmission
Reproductive - required for normal cell division
Endocrine - inhibits release of thyroid-releasing and other pituitary hormones
Blood - stimulates blood formation and is required for blood clotting
Muscular - reduces muscular irritability and contractibility
Skeletal - main component of bone
Metabolic - required for phosphorus metabolism and energy production in the Krebs cycle.
Detoxification - inhibits uptake of lead, antagonizes cadmium.
Cellular - decreases permeability of cells to sodium and potassium ions.

METALLOENZYMES
- Troponin - muscle contraction
- Adenyl cyclase - inhibition of cyclic AMP
• Kinases - phosphate metabolism
• Choline esterase - destruction of acetylcholine
• Prothrombin - blood clotting
• Lipase - fat digestion
• Succinic dehydrogenase - Krebs cycle
• ATPase - energy release

CALCIUM DEFICIENCY SYMPTOMS
  fast oxidation  fight-or-flight reaction
  muscle cramps and spasms  insomnia
  tooth decay  bruising
  irritability  high blood pressure
  nervousness  osteoporosis
  anxiety  increased tendency to absorb
  hyperkinetic behavior  lead and cadmium

SYMPTOMS ASSOCIATED WITH A CALCIUM EXCESS
  slow oxidation  kidney stones
  fatigue  gall stones
  apathy  arthritis
  depression, mental  hardening of the arteries
  withdrawal, social  constipation

SYNERGISTIC NUTRIENTS
  Absorption - vitamin A and D, stomach acidity, protein in the diet
  Utilization - magnesium, copper, vitamin C

ANTAGONISTIC NUTRIENTS
  Absorption - fluoride, low stomach acidity, low protein in diet, phosphorus in excess
  Utilization - lead, cadmium, sodium, potassium, high protein diet does not necessarily increases calcium loss in urine.

HAIR ANALYSIS NOTES
  High hair tissue calcium:
  • Associated with a slow oxidation rate, fatigue, depression and an exhaustion stage of stress.
  • Often indicates that calcium is leaving the blood and accumulating in the soft tissues of the body. This is called biounavailable calcium.
  • An indicator of hidden copper toxicity.
  • High calcium on a retest often means the body is eliminating excess biounavailable or “metastatic” calcium.
  • Often reflects low thyroid and adrenal glandular activity.
  • A level above about 170 mg%, especially on a first test, indicates a calcium shell pattern on a hair analysis. Hair must not be washed at the lab for accurate calcium readings.
Low hair tissue calcium:

• Associated with a fast oxidation rate and an alarm stage of stress.
• Associated with excessive thyroid and adrenal glandular activity, anxiety and irritability.
• Often indicates calcium is being lost in the urine.
• Associated with copper deficiency.

REASONS FOR CALCIUM SUPPLEMENTATION

• To slow the oxidation rate.
• To help remove lead, cadmium and other toxic metals and toxic chemicals.
• To balance key mineral ratios.
• To replace calcium being lost either into the tissues or through the urine.
• Symptomatic - for muscle cramps, irritability, insomnia, anxiety, or osteoporosis.
• Well-absorbed forms include chelates, citrate, lactate and perhaps others. Carrots and raw, certified dairy are excellent as well. Carbonates are very alkaline and not considered as good.

MAGNESIUM

GENERAL

Divalent cation, extremely alkaline-forming mineral, a major enzyme activator of the body, intracellular, paired with calcium and with potassium, deficient in most diets.

SOURCES OF MAGNESIUM

- Nuts - almonds, brazil nuts, cashews
- Vegetables - soybeans, parsnips
- Grains - buckwheat, wheat bran, wheat germ, other grains
- Misc. - chocolate, cocoa, molasses, brewer's yeast, kelp

ROLES IN THE BODY

• Skeleton - sixty percent of tissue magnesium is located in the skeleton.
• Intracellular mineral - Most of the rest is within the cells.
• Enzyme Activation within the cells - magnesium is essential for energy production, and protein synthesis. Magnesium is required for the activation or structure of more enzymes than any other mineral. Many magnesium-dependent enzymes cannot use any other mineral as a replacement for magnesium.
• Regulation of Cell Membranes - permeability, muscle contraction, nerve impulse conduction and antagonism to calcium.

FUNCTIONS OF MAGNESIUM

- Excretory - prevention of kidney stones
- Digestive - laxative
- Nervous - maintains nerve conduction
- Muscular - prevents tissue calcification, needed for muscle contraction
- Skeletal - required for bone formation
- Metabolic - required for energy production, for glucose and fat metabolism, and for protein synthesis
- Detoxification - required for liver activity
METALLOENZYMES

- Phosphokinases, carboxylase and pyruvate oxidase - glucose metabolism
- Thiokinases, glucokinase and myokinase - fatty acid degradation
- Phosphatases, alkaline phosphatase, pyrophosphatase - phosphate metabolism
- Enolase, isocitric dehydrogenase - glucose metabolism
- Peptidases - split peptides

MAGNESIUM DEFICIENCY SYMPTOMS

- Fast oxidation rate
- Kidney stones
- Irritability
- Anxiety
- Hyperkinetic behavior
- Tissue calcification
- Seizures

- Fast heart rate
- Irregular heart beat
- High blood pressure
- Muscle cramps, especially after exercising
- Muscle spasms

MAGNESIUM EXCESS SYMPTOMS

- Slow oxidation rate
- Fatigue
- Lethargy
- Confusion
- Muscle weakness

- Diarrhea
- Low blood pressure
- Muscle weakness
- Depression, mental

SYNERGISTIC NUTRIENTS

- Vitamin D, lactic acid, lactose, high protein diet.
- Potassium may be synergistic or antagonistic depending on the situation.

ANTAGONISTIC NUTRIENTS

Absorption - phytates found in grains, fluoride, phosphorus, low-protein diet.
Utilization - calcium. Drinking alcohol lowers magnesium levels. Junk food diets are often low in magnesium.

HAIR ANALYSIS NOTES

High hair tissue magnesium:
- Often associated with a slow oxidation rate, fatigue and depression.
- A high magnesium level often indicates that magnesium is being lost through the hair, resulting in deficiency symptoms such as anxiety and irritability.
- An increase on a hair analysis retest may indicate an elimination of toxic or biounavailable forms of magnesium from the body through the hair due to a nutritional balancing program.

Low hair tissue magnesium:
- Often associated with a fast oxidation rate, anxiety, irritability, belligerence and high-strung personality. Hair must not be washed at the lab for accurate magnesium readings.

REASONS FOR MAGNESIUM SUPPLEMENTATION

- To prevent calcium build-up in body tissues.
• To enhance energy production & raise low sodium levels.
• To offset dietary deficiency.
• To enhance many magnesium-dependent enzyme systems.
• Symptomatic - for energy, muscle tightness or cramps, laxative, or irritability.
• Well-absorbed forms include chelates, citrate, glycinate and perhaps others. Oxide is considered less well absorbed.

**POTASSIUM**

**GENERAL**

Monovalent cation, solvent mineral, alkaline-forming mineral, intracellular regulator, heart regulator with magnesium. *Toxic potassium* is picked up from superphosphate fertilizers by fruits and is one reason I don’t recommend any fruit. Children are all born with toxic potassium from their mothers’ bodies. As it is eliminated, children mature.

**SOURCES OF POTASSIUM**

*Seafood* - halibut, herring, ling cod, sardines
*Nuts/seeds* - pecans, sesame, sunflower, walnuts, almonds, brazil nuts, cashews, chestnuts, filberts, peanuts
*Fruits* - avocados, dates, figs, prunes, raisins
*Vegetables* - watercress, garlic, horseradish, lentils, parsley, potatoes, spinach, artichokes, lima beans, beet greens, Swiss chard, collards.
*Grains* - buckwheat, rye, wheat bran
*Miscellaneous* - chocolate, molasses, mushrooms, kelp, yeast, salt substitutes. Some water softeners contain potassium and this rarely will elevate hair levels.

**ROLES IN THE BODY**

• Intracellular fluid balance
• Cell membrane effects such as muscle contraction, nerve impulse conduction, and cell permeability.

**FUNCTIONS OF POTASSIUM**

*Circulatory* - lowers heart rate, dilates arteries, can reduce blood pressure
*Excretory* - maintains acid-base balance
*Digestive* - increases digestive tract activity
*Endocrine* - helps raise aldosterone and other hormones. Dr. Eck stated that it helps sensitize the tissues to thyroid hormone.
*Metabolic* - involved in carbohydrate metabolism

**METALLOENZYMES**

• Na-K-ATPase - sodium pump mechanism
• Glycolytic enzymes - anaerobic metabolism
• Oxidative phosphorylation enzymes - cell respiration

**POTASSIUM DEFICIENCY SYMPTOMS**

fatigue and slow oxidation
irregular heart beat
skin problems
constipation
water retention allergies, low blood sugar
low blood sugar muscle weakness

POTASSIUM EXCESS SYMPTOMS
high blood sugar (diabetes) depression, mental
fast oxidation muscle spasms
weakness, muscle

SYNERGISTIC NUTRIENTS
magnesium, zinc

ANTAGONISTIC NUTRIENTS
Calcium, processed food diets are low in potassium
Magnesium may be synergistic and antagonistic at times.

HAIR ANALYSIS NOTES
Hair must not be washed at the laboratory to obtain accurate potassium readings.

*High hair tissue potassium:*
- Associated with a fast oxidation rate.
- May indicate trend for high sugar and glucocorticoid levels.
- Very high potassium may be a potassium loss due to excessive tissue breakdown.
- Use of a water softener can raise the hair potassium.
- A temporary rise in the hair potassium during a nutritional balancing program can be due to the elimination of *toxic potassium*. For more information, go to www.drlwilson.com.

*Low hair tissue potassium:*
- Indicates adrenal gland exhaustion
- Very low potassium is associated with allergies, fatigue, low blood sugar, sweet cravings, and low blood pressure.
- Potassium levels of 1 to 4 mg% indicate a *sympathetic dominant pattern* on a hair analysis.

REASONS FOR POTASSIUM SUPPLEMENTATION
- Supplements not needed if the diet is high in potassium foods such as unrefined grains and vegetables.
- Can use for irregular heart beat and other cardiac distress associated with low potassium.
- Doctors give it when one takes diuretic drugs that deplete potassium.
- Potassium aspartate, along with magnesium aspartate, may help arrhythmias and other heart problems.

*PHOSPHORUS*

GENERAL
Energetic, fiery, acid-forming mineral. It is unstable in its elemental form, so it is always found in the body in the form of phosphates and other compounds. Phosphorus is present in all proteins, paired with nitrogen and, at times, with sulfur.
SOURCES OF PHOSPHORUS

Seafood - tuna, mackerel, pike, red snapper, salmon, sardines, whitefish, scallops, shad, smelt, anchovies, bass, bluefish, carp, caviar, eel, halibut, herring, trout.

Meats - liver (beef, chicken, hog, lamb), rabbit, sweetbreads, turkey, beef brains, chicken, eggs, lamb heart, kidney.

Nuts/seeds - pinon, pistachios, pumpkin, sesame, sunflower, walnuts, almonds, brazils, cashews, filberts, hickory, peanuts, pecans.

Vegetables - chickpeas, garlic, lentils, popcorn, soybeans

Dairy - cheeses

Grains - wheat bran and germ, wild rice, buckwheat, millet, oats, oatmeal, brown rice, rice bran, rye, wheat

Miscellaneous - chocolate, kelp, yeast, bone meal

ROLES IN THE BODY

- Bone structure - 80-85% of phosphorus in the body is located in the bones and teeth.
- Energy production - (ATP - adenosine triphosphate and ADP - adenosine diphosphate)
- Cell membranes - (as phospholipids)
- Genetic reactions - in DNA - deoxyribonucleic acid and RNA - ribonucleic acid.
- Buffering agent, to maintain osmotic pressure

FUNCTIONS OF PHOSPHORUS

Digestive - regulates absorption of calcium and a variety of trace elements. Phosphorus in excess has a laxative action

Nervous - source of adenosine triphosphate (ATP), component of the myelin sheath

Endocrine - interacts with vitamin D

Blood - red blood cell (RBC) metabolism

Muscular - adenosine triphosphate (ATP) needed for muscle contraction

Skeletal - component of bone and teeth

Immune - adenosine triphosphate (ATP) for leukocytes

Metabolic - energy production via phosphorylation reactions

Detoxification - in liver - via adenosine triphosphate (ATP)

METALLOENZYMES

- Pyruvate carboxylase - glucose metabolism
- Dehydrogenases - oxidative phosphorylation (energy metabolism)
- Microsomal mixed function oxidases - detoxification
- Cytochrome C reductase, L-amino oxidase, flavoprotein enzymes - oxidation-reduction
- Transferases, pyruvate dehydrogenase - carbohydrate metabolism
- Thiokinases, thiolases - fatty acid metabolism
- ATP-ases, phosphorylases, polymerases, synthetases - protein and nucleic acid synthesis
- Lecithin synthetases - lecithin synthesis
- Transmethylyases, reductases, mutases, dehydrases - nucleic acid metabolism

PHOSPHORUS DEFICIENCY SYMPTOMS

- arthritis
- fatigue
- fragile bones
- stunted growth
reproductive problems  tooth decay
weakness, muscle  rickets, osteomalacia

PHOSPHORUS EXCESS SYMPTOMS
anemia (iron deficiency)  hyperexcitability
arthritis  tremors
zinc deficiency  irritability
diarrhea  calcium and magnesium deficiency
parathyroid dysfunction

SYNERGETIC NUTRIENTS
• Absorption - sodium, potassium, low calcium diet, vitamin D, parathyroid hormone, high fat diet
• Metabolic - calcium, magnesium, B-complex vitamins (in energy production)

ANTAGONISTIC NUTRIENTS
• Absorption - calcium, aluminum, iron, magnesium, vegetarian diets, vitamin D deficiency

HAIR ANALYSIS NOTES
High hair tissue phosphorus
• Frequently indicates mildly excessive tissue breakdown. As proteins break down, phosphorus is released.
• May occur during nutritional balancing programs and may be a karmic release pattern.
• May increase temporarily as toxic metals are being eliminated and poor quality tissue breaks down in the course of a nutrition program.
• Pubic hair samples often reveal elevated and erratic phosphorus readings.

Low hair phosphorus
• Associated with a catabolic state of body chemistry. This means impaired protein synthesis in which the breakdown or catabolic body functions exceed the synthesizing or anabolic aspects. This may be due to a low protein in the diet, improper types of proteins such as vegetarian sources, for example, impaired protein digestion, impaired absorption of amino acids and peptides and/or impaired protein synthesis in the liver and elsewhere.
• Vegetarians often have low phosphorus readings, perhaps due to low protein diets or lower quality proteins in the diet or intestinal infections such as candida albicans associated with copper imbalance.
• Zinc is important for protein synthesis. A low phosphorus level is associated with a zinc deficiency and low hair zinc. When these imbalances are corrected, the phosphorus level often improves.
• May be due to digestive enzyme deficiency, low hydrochloric acid level, or other reasons.
• A phosphorus level less than about 12 mg% often indicates lowered vitality.

SODIUM

GENERAL
Monovalent cation, highly water-soluble and alkaline-forming mineral, the body’s main solvent element.
SOURCES OF SODIUM

Seafood - tuna, clams, caviar, lobster, sardines, scallops, shrimp
Meats - brains, eggs, beef kidneys, beef liver
Vegetables - beet greens, celery, Swiss chard, olives, peas
Dairy - butter, buttermilk, cheeses
Miscellaneous - pickles, table salt, soy sauce, steak sauce, kelp, brewer's yeast, drinking water from water softeners. Processed and fast foods are often very high in salt. Eating salt, however, often does not elevate hair sodium readings

ROLES IN THE BODY

• Extracellular element involved in fluid balance
• Regulation of blood pressure
• Regulation of cell membrane permeability.

FUNCTIONS OF SODIUM

Circulatory - maintenance of blood pressure, increases heart rate.
Excretory - helps maintain acid-base balance.
Digestive - required to produce hydrochloric acid in the stomach.
Endocrine - reduces aldosterone secretion.
Detoxification - keeps toxic substances in solution.

SODIUM DEFICIENCY SYMPTOMS

fatigue depression, mental
weakness apathy
low blood pressure poor protein digestion
slow oxidation rate bloating, abdominal
low hydrochloric acid level allergies
anorexia dizziness

SODIUM EXCESS SYMPTOMS

high blood pressure nervousness
water retention lowers calcium and magnesium
irritability fast oxidation rate
headache

SYNERGISTIC NUTRIENTS

Absorption - glucose, absorption not a problem in almost everyone
Metabolic - manganese, chromium, vitamin C, E, and B-complex, adequate adrenal and thyroid activity

ANTAGONISTIC NUTRIENTS

Absorption - calcium
Metabolic - zinc, choline, inositol, low adrenal activity
HAIR ANALYSIS NOTES
Sodium is an adrenal-related mineral. Dr. Eck called it the volatility mineral because it is associated with aldosterone activity

*High hair tissue sodium:*
- Indicative of excessive adrenal gland activity.
- Often indicates excitability and fast oxidation.
- Sodium levels can be elevated by toxic metals, especially cadmium, lead, arsenic and by the three amigos or friends – manganese, iron and aluminum. These may be hidden on hair tests, especially in most slow oxidizers.

*Low hair tissue sodium:*
- Excellent indicator of impaired adrenal and thyroid glandular activity.
- Very low sodium is indicative of adrenal exhaustion.
- Indicates sodium loss through the kidneys due to low aldosterone and perhaps due to low rennin-angiotensin.
- Hair must not be washed at the laboratory for accurate sodium readings.

SUPPLEMENTING SODIUM
Slow oxidizers with low sodium levels and low blood pressure often feel better when they use natural sea salt in cooking. Salt consumption can be harmful if excessive, or if blood pressure is elevated.

SULFUR

GENERAL
Fiery element, acid-forming, structural and “cleansing” mineral, connective tissue component, very abundant in the body.

SOURCES OF SULFUR
*Meat/fish/fowl* - lean beef, clams
*Dairy* - egg yolk, milk
*Vegetables* - cabbage, Brussels sprouts, kale, cauliflower, watercress, horseradish and other radish family vegetables
*Grains/beans* - wheat germ, dried beans

FUNCTIONS OF SULFUR
- Protein structures - cysteine, methionine, glutathione and taurine contain sulfur.
- Disulfide bonds form tertiary protein structures.
- Collagen synthesis.
- Energy production.
- Oxidation-reduction reactions.
- Bile secretion and detoxification through the liver.
- Keratin production - hair, skin and nails.
- Insulin production.
- Heparin production.
- Co-factor with thiamine, pantothenic acid, biotin and lipoic acid.
DEFICIENCY SYMPTOMS
Possible symptoms of organic sulfur deficiency include joint pain, fibromyalgia and irritability. Skin, hair and nail conditions may be related to inadequate organic sulfur intake.

TOXICITY SYMPTOMS
Rare from food-based sulfur. Inorganic sulfur and mineral sulfur are toxic. They may cause anemia, impaired digestion, skin rashes and destruction of body proteins.

SYNERGISTS
Molybdenum, B-complex vitamins, combines with many elements.

ANTAGONISTS
Copper

REASONS FOR SUPPLEMENTATION
• Radishes and the cabbage family of foods, and other sulfur-bearing herbs or amino acids helpful to reduce all toxic metals and especially for copper toxicity
• Symptomatic - methylsulfonylmethane (MSM) used for joint problems to assist rebuilding of cartilage
• Chelating agents are sulfur compounds such as EDTA, DMPS, DMSA and others. I do not recommend these often as they are somewhat toxic and not needed in most cases

HAIR ANALYSIS NOTES
Hair, skin and nails have the highest sulfur content of any body tissues. Hair sulfur level is not that important in my experience

THE TRACE MINERALS

BORON

GENERAL
An important element in plants, and less important in human beings.

SOURCES OF BORON
Leafy vegetables, fruits, nuts, legumes, wine, cider, beer and bone extracts.

FUNCTIONS IN THE BODY
• Increases production of estrogen and testosterone
• Helps prevent osteoporosis and post-menopausal symptoms such as hot flashes in some cases
• May be necessary for growth (animal experiments)

DEFICIENCY SYMPTOMS
Osteoporosis, hot flashes and vaginal dryness in post-menopausal women
TOXICITY SYMPTOMS
Low toxicity. In animals, excessive intake affects calcium metabolism and may cause osteoporosis and increased urinary excretion of riboflavin.

HAIR ANALYSIS NOTES
- Correlation between hair levels and total body load is not confirmed
- Hair analysis may not be helpful to assess boron

**CHROMIUM**

GENERAL
Blood sugar regulating mineral, alkaline-forming element, deficiency is almost universal today, and appears to become worse with age.

SOURCES OF CHROMIUM
- **Seafood** - oysters
- **Meats** - calves' liver, egg yolk
- **Nuts/seeds** - peanuts
- **Fruit** - grape juice
- **Dairy** - American cheese
- **Grains** - wheat and wheat germ
- **Miscellaneous** - brewer's yeast, black pepper, molasses

ROLES IN THE BODY
- *Glucose tolerance factor* - chromium required for blood sugar levels and energy levels.
- *Cholesterol regulation*
- *Other possible roles involved in the synthesis of DNA*

FUNCTIONS OF CHROMIUM
- **Circulatory** - serum cholesterol regulation
- **Digestive** - sugar and carbohydrate utilization (via insulin)
- **Nervous** - maintenance of nervous system by regulation of blood sugar
- **Eyes** - corneal clarity
- **Muscular** - supplies energy for muscular contraction
- **Skeletal** - essential component of bones and hair
- **Protective** - immune system (via insulin)
- **Metabolic** - fat, protein, and carbohydrate metabolism regulation

METALLOENZYMES
- Phosphoglucomutase - glucose metabolism

CHROMIUM DEFICIENCY SYMPTOMS
- atherosclerosis
- fatigue, diabetes
- depressed growth
- elevated serum cholesterol
- hypoglycemia
- diabetes
CHROMIUM EXCESS SYMPTOMS

- asthma
- allergies
- calcium deficiency
- causes an iron deficiency
- kidney damage
- sinusitis
- ulcers
- nausea, vomiting

SYNERGETIC NUTRIENTS

- insulin, glucose, magnesium, vitamin B6, zinc, manganese, oxalates, salicylates

ANTAGONISTIC NUTRIENTS

- Absorption - iron, manganese, zinc, vanadium, phytates
- Metabolic - glucagon

HAIR ANALYSIS NOTES

**High hair tissue chromium:**
- Usually biounavailable, unless due to frank toxicity, which is rare.
- Occasionally rises on a retest due to its release from tissue storage sites. This is likely the release of a biounavailable form of chromium, perhaps an oxide or other toxic form. This usually occurs along with a release of biounavailable manganese, iron and perhaps aluminum, as these elements often move together in the body. All may take toxic and unavailable forms in the body, perhaps to stimulate or irritate the adrenals when the body is in a resistance or exhaustion stage of stress.

**Low hair tissue chromium:**
- Often due to chromium deficiency, which is common in modern diets. It becomes worse if one eats refined flour and sugar that tend to deplete chromium.
- Excessive iron intake is a possible cause for low chromium levels.

REASONS FOR CHROMIUM SUPPLEMENTATION

- To raise sodium.
- Superb for glucose intolerance, diabetes, hypoglycemia, fatigue, or elevated cholesterol.
- All common forms of chromium such as chelates, yeast-based GTF chromium, picolinate and hexaniacinate appear to be well-absorbed.

**COBALT**

GENERAL

Alkaline-forming element, minor trace mineral for nutritional balancing, but important for B12 synthesis.

**SOURCES OF COBALT**

- Seafood - sardines, salmon, herring
- Meat/Organs - liver, kidney
- Nuts/seeds - peanuts
- Vegetables - peas, okra
- Dairy - butter
- Grains - buckwheat, wheat bran, wheat germ
Miscellaneous - molasses, raw sugar, cornstarch, cornmeal

FUNCTIONS OF COBALT (and vitamin B12)
- Circulatory - increases cardiac glycogen
- Excretory - stimulates erythropoietin in kidney
- Respiratory - maintains red blood cell production
- Digestive - maintains gastrointestinal mucosa
- Nervous - maintains myelin sheath
- Special Sensory - maintains vision and coordination
- Reproductive - prevents congenital abnormalities and gametogenesis
- Endocrine - release of glucagon, erythropoietin and T4, inhibition of insulin
- Muscular - muscle homeostasis and control
- Skeletal - maintains bone marrow and skin
- Metabolic - nucleic acid, protein and lipid synthesis
- Detoxification - methylation and sulfhydryl reactions

METALLOENZYMES
- Glycylglycine dipeptidase - hydrolyzes dipeptides
- Catalase (in bacteria) - breaks down hydrogen peroxide
- Pyrophosphatase (in bacteria) - converts pyro- to orth-PO4

DEFICIENCY SYMPTOMS
- pernicious anemia, a megaloblastic anemia
- central nervous system damage
- glossitis, sprue

TOXICITY SYMPTOMS
- congestive heart failure
- polycythemia
- neurological abnormalities
- insulin inhibition
- pericardial effusion
- thyroid dysfunction

SYNERGISTS
- copper, zinc, iodine, molybdenum, iron deficiency, vitamin C, folic acid

ANTAGONISTS
- iron, manganese, protein in diet

SUPPLEMENTATION
- Because of toxicity, supplementation should be avoided in favor of supplementation with the much safer chelated form -vitamin B12.

HAIR ANALYSIS NOTES
- Significance of hair cobalt levels unknown.
COPPER

GENERAL
Valence +2 or +3, emotional mineral, alkaline-forming mineral, more recent ‘female’ element as it is needed for fertility and associated with estrogen levels.

SOURCES OF COPPER
Seafood - oysters, crabs, bluefish, perch, lobster
Meats - calf, duck, lamb, pork, beef liver and kidneys
Nuts/seeds - almonds, pecans, walnuts, filberts, brazils, sesame, sunflower, pistachio
Vegetables - soybeans
Grains - wheat germ and bran
Miscellaneous - yeast, gelatin, bone meal, corn oil, margarine, mushrooms, chocolate
Other sources - copper water pipes, copper sulfate added to drinking water, copper compounds used in swimming pools, mineral supplements (especially pre-natal vitamins), copper cookware and tea kettles, birth control pills and patches, use of estrogen and other hormone supplements, copper intrauterine devices, vegetarian diets, stress, exhaustion of the adrenal glands.

Many children are born today with excessive copper passed to them from their mothers in utero.

ROLES IN THE BODY
• Energy production
• Female reproductive system
• Blood formation
• Connective tissues

FUNCTIONS OF COPPER
Circulatory - structure of blood vessels, aorta and heart muscle
Blood - formation of hemoglobin
Nervous - maintenance of the myelin sheath on nerves
Reproductive - essential for fertility, menstrual cycle
Endocrine - synthesis of stimulatory neurotransmitters
Muscular/skeletal/skin – bone, connective tissue, skin, hair, nails
Immune system - necessary for the immune system
Energy - energy production (the electron transport system)

METALLOENZYMES
• Cytochrome C oxidase - myelin and catecholamine synthesis
• Superoxide dismutase - superoxide degradation
• Ceruloplasmin (ferroxidase) - iron oxidation and mobilization
• Tyrosinase - melanin formation
• Uricase - allantoin formation
• Dopamine B-hydroxylase - norepinephrine synthesis
• Lysyl oxidase - elastin and collagen crosslinking
• Diamine oxidase - oxidative deamination
COPPER DEFICIENCY SYMPTOMS
- anemia
- aneurysms
- arteriosclerosis
- impaired collagen formation
- fatigue
- anorexia
- demyelination of nerves
- edema
- impaired collagen formation
- diarrhea
- low female hormone production
- edema
- osteoporosis

COPPER EXCESS SYMPTOMS
- acne
- hypertension
- adrenal insufficiency
- hyperthyroidism
- allergies
- hypochlorhydria
- alopecia
- hypoglycemia
- anemia
- infections
- anorexia
- inflammation
- anxiety
- insomnia
- arthritis
- mind racing
- autism
- mood swings
- cholester
- multiple sclerosis
- elevated
- myocardial infarction
- cancer
- nausea
- cystic fibrosis
- pancreatic dysfunction
- depression, mental
- premenstrual tension
- diabetes
- schizophrenia
- estrogen (imbalance)
- sexual inadequacy
- fatigue
- spaciness
- fears
- strokes
- fractures, bone
- tooth decay
- headaches (migraine)
- urinary tract infections
- hemorrhages
- vitamin deficiencies
- heart disease
- hyperactivity

SYNERGETIC NUTRIENTS
Absorption - protein in the diet.
Metabolic - copper and calcium levels often rise and fall together. Estrogen and copper levels may correlate in many instances. Zinc in some instances.

ANTAGONISTIC NUTRIENTS
Absorption - zinc, manganese, iron, calcium, molybdenum, sulfur, mercury, cadmium, vitamin C
Metabolic - zinc, vitamin C, vitamin B6, sulfur, molybdenum, manganese, iron

HAIR ANALYSIS NOTES
- A normal or low hair copper level is an inaccurate indicator of copper metabolism. Too many factors can influence it.
- **Fast Oxidation:** Fast oxidizers are often deficient in copper. All fast oxidizers, in Dr. Eck’s research, require additional copper.

- **Low sodium/potassium ratio.** Those with a low sodium/potassium ratio require extra bioavailable copper, as theirs is usually high but not available.

- **Slow oxidizers** have either high copper or biounavailable copper. Biounavailable causes a combination of symptoms of copper toxicity and deficiency.

- **Biounavailable copper indicators.** These may include a slow oxidation rate, four lows pattern, a low sodium/potassium ratio and often whenever the copper level is greater than 2.5mg% or less than 1 mg%.

- **Hidden Copper Toxicity:** Copper is often normal on hair tests, but may actually be locked in other body tissues. Copper accumulates in the brain, liver and female organs first and causes a variety of symptoms. Hair analysis indicators of a hidden copper imbalance are:
  - calcium greater than 70 mg%
  - potassium level less than 4 mg%
  - sodium/potassium ratio less than 2.5:1
  - mercury greater than 0.03 mg%

  Hair analysis indicators of a hidden copper imbalance are:
  - four lows pattern
  - zinc less than 12 mg%
  - copper less than 1 mg% in slow oxidizers
  - usually, phosphorus less than 12 mg%

**High hair tissue copper:**
- Usually indicates toxicity and/or biounavailability.
- On a hair analysis retest, it often indicates an elimination through the hair.

**Low hair tissue copper:**
- Less than 1.0 mg% in a slow oxidizer indicates hidden copper toxicity or biounavailability.
- Often indicates deficiency in a fast oxidizer.

**REASONS FOR SUPPLEMENTATION WITH COPPER**
- To raise a low sodium/potassium ratio.
- To enhance retention of calcium in tissues and to raise the hair calcium level.
- To help reduce a fast oxidation rate.
- To raise the sodium/potassium ratio.
- Symptomatic - for gout, threatened miscarriage, some cases of PMS and perhaps some infections.

**IRON**
Valence +2 or +3, strength and hardness mineral, a ‘male’ and an acid-forming element.

**SOURCES OF IRON**
- **Seafood** - clams, oysters
- **Meats** - liver and kidneys, beef, reindeer meat
- **Nuts/seeds** - pistachio, pinon nuts, black walnuts, sesame, sunflower, pumpkin seeds
- **Vegetables** - Irish moss, chives, parsley, soybeans
- **Grains** - wheat germ and bran, rice bran
Miscellaneous - red wine, black strap molasses, sorghum syrup, bone meal, yeast.
Vitamins with iron, white flour products and iron cookware may cause elevated iron in the body.

ROLES IN THE BODY
- *Oxygen Transport* - iron is part of the hemoglobin molecule that carries oxygen in the blood
- *Cellular Energy Production* - iron is required in the final steps of the electron transport system to produce ATP.
- *Removal of Harmful Free Radicals* - the catalase enzyme system requires iron.

METALLOENZYMES
- Cytochrome (C) oxidase - heme formation
- Catalase, glutathione peroxidase, peroxidase (hepatic) - detoxification
- Succinic dehydrogenase, NAD dehydrogenase - electron transport
- Xanthine oxidase - electron transport

METALLO-PROTEINS
Hemoglobin, myoglobin, ferritin, hemosiderin, transferrin

DEFICIENCY SYMPTOMS
- Fatigue
- hydrochloric acid deficiency
- weakness
- brittle or ridged nails
- decreased resistance
- slow oxidation
- pallor
- low blood pressure
- anemia
- dizziness

IRON EXCESS SYMPTOMS
- liver disease
- cancer
- iron deposits in organs
- diabetes
- arthritis
- cirrhosis of the liver
- schizophrenia
- emotional problems
- high blood pressure
- myasthenia gravis
- hemochromatosis
- hemosiderosis

SYNERGETIC NUTRIENTS
- *Absorption* - acid foods, animal foods, vitamin C, alcohol, glucose and other sugars
- *Utilization* - copper, vitamin B12

ANTAGONISTIC NUTRIENTS

HAIR ANALYSIS NOTES
Iron is a masculine mineral, but not as advanced as zinc. Hair iron levels are not helpful when normal or low. Excess, usually biounavailable iron is often present, especially in slow
oxidizers. However, it is often not high on the hair analysis. Look to an elevated manganese or aluminum as indicators of excess, usually biounavailable iron in the body.

**High hair tissue iron:**
- Often associated with feelings of anger and hostility.
- More often revealed on fast oxidizer hair analyses and almost always present, but hidden in slow oxidizers.
- Associated with aluminum greater than .1 mg% or manganese greater than 0.04 mg%.
- These minerals, along with iron, are called the ‘amigos’ or ‘friends’.
- Iron toxicity is usually worsened by eating flour products enriched with iron, too much red meat, iron tablets or more rarely continual use of iron cookware or excessive iron in drinking water.
- High tissue iron supports the sodium reading and adrenal activity, perhaps by irritating the adrenals or the nervous system. Iron toxicity is far more common than is diagnosed by medical doctors. Medical diagnosis is difficult and may require an invasive liver biopsy.

**Low hair tissue iron:**
- Most often associated with a slow oxidation rate.
- The tissue iron is often high, but hidden and biounavailable.
- Low hair iron does not necessarily indicate anemia.
- Iron tablets will often not raise hair iron levels.

**REASONS FOR IRON SUPPLEMENTATION**
- To correct deficiencies that may occur during pregnancy, in women with heavy periods, in strict vegetarians, or in a few malnourished children and even adults.
- Deficiency rarely arises due to hidden intestinal bleeding, injury, accidents, surgeries or other causes of blood loss.
- Many people take iron who should not take it, causing iron toxicity. Iron is easily obtained from meats, eggs and green vegetables. The body retains iron very well.

**LITHIUM**

**GENERAL**
- Brain protective nutrient, very alkaline-forming element.

**SOURCES OF LITHIUM**
- Deficient in refined foods.
- Some is found in a wide variety of foods.

**FUNCTIONS OF LITHIUM**
- Decreases manic symptoms in manic-depressive patients
- May modulate the conversion of essential fatty acids into prostaglandins
- May stabilize serotonin transmission
- Anti-aggressive action
- Protective of the brain and central nervous system against a variety of toxic agents and may be helpful with neurological disorders
ROLES IN THE BODY
Research by Frazier found that those patients who were helped by lithium experienced increased uptake of sodium through their cell membranes. According to Sheard, lithium can replace sodium in the cells, and its structure resembles calcium and magnesium. It appears to have the same stabilizing effect on nerve cells as calcium and magnesium.

DEFICIENCY SYMPTOMS
excessive aggressiveness
depression, manic states

TOXICITY SYMPTOMS
disturbed mineral transport
tremors
excessive urination
thirst
fluid balance
confusion
thyroid swelling
disorientation
nausea
delirium
weight gain
skin eruptions
vomiting
possible kidney damage
drowsiness
seizures, coma and death.

ANTAGONISTS
Absorption – most other trace elements
Metabolic – most toxic metals and oxidant nutrients

SYNERGISTS
Metabolic – most of the trace elements plus the major macrominerals

HAIR ANALYSIS NOTES
• Hair lithium levels will elevate in those on medical lithium therapy.
• Hair lithium may or may not reflect the total body load of lithium.
• Lithium is a more experimental element in nutritional balancing at this time. It may be helpful for those with anxiety and irritability, or anyone taking a psycho-active drug such as an anti-depressant, to protect the delicate brain structures.
• Lithium appears to balance the sodium level. This would correlate with the research by A. Frazier. The significance of hair lithium levels is a topic of research.

INDICATIONS FOR SUPPLEMENTATION
• Aggressive behavior, manic-depression and some cases of depression.
• Lithium may help reduce elevated blood sugar and help protect the brain in cases of Alzheimer’s disease, other dementias and others.

MANGANESE

GENERAL
Valence +2, +3 and other toxic forms such as +4 or +6, alkaline-forming, a ‘female’ element.
SOURCES OF MANGANESE
   * Meats - snails, egg yolk
   * Nuts/seeds - sunflower, coconuts, peanuts, pecans, walnuts, chestnuts, hazelnuts, almonds, brazils
   * Fruits - blueberries, olives, avocados
   * Vegetables - corn, corn germ, parsley, legumes
   * Grains - wheat, wheat germ and bran, rice, barley, oats, buckwheat, rye
   * Miscellaneous - kelp, cloves, tea. Gasoline fumes contain manganese, as can some water supplies, especially in the Northeast USA.

ROLES IN THE BODY
   * Essential for energy production
   * Involved in glucose tolerance
   * Helps maintain the integrity of tendons and ligaments
   * Essential for bone development and arterial integrity

FUNCTIONS OF MANGANESE
   * Nervous system - synthesis of neurotransmitters
   * Reproductive system - fertility
   * Endocrine system - required for normal adrenal and thyroid gland activity
   * Skeletal - tendons, ligaments, connective tissue
   * Metabolic - energy production, glucose tolerance, utilization of fats and carbohydrates
   * Detoxification - involved in superoxide dismutase

METALLOENZYMES
   * Pyruvate carboxylase - carbohydrate metabolism
   * Superoxide dismutase - destruction of free radicals
   * Glycosyl transferase - glucose utilization
   * Various hydrolases, kinases, transferases, peptidases, arginase, phosphatases, and DNA polymerase - degradative and biosynthetic enzymes

DEFICIENCY SYMPTOMS
   * Allergies
   * Hypoglycemia
   * Diabetes
   * Myasthenia gravis
   * Dizziness
   * Ringing in the ears
   * Fatigue
   * Weakness, muscular
   * Fractures or osteoporosis
   * Weak ligaments and tendons

TOXICITY SYMPTOMS
   * Anorexia
   * Neurological symptoms
   * Ataxia
   * Schizophrenia
   * Criminal behavior
   * Iron deficiency
   * Parkinson’s-like symptoms

SYNERGETIC NUTRIENTS
   * Zinc, choline, vitamin K
ANTAGONISTIC NUTRIENTS

Absorption - calcium, phosphorus, iron, soy protein, iron, many other minerals
Metabolic - copper, magnesium, iron, vanadium

HAIR ANALYSIS NOTES

- Normal or low hair manganese is not a reliable indicator of manganese status.
- Most slow oxidizers have excessive and usually biounavailable manganese. To assess this, look to elevated aluminum or iron.
- Manganese-deficient animals show reduced maternal caring for their young.

High hair tissue manganese:
- Manganese toxicity is common. A possible source is contaminated drinking water. The EPA is not required to report manganese levels in drinking water.
- Usually a biounavailable form of manganese, perhaps an oxide. Often high along with the other ‘amigos’ or ‘friends’, namely iron, aluminum and rarely chromium and selenium. This may support adrenal activity.
- Sauna therapy often needed to remove toxic manganese from the body.

Low hair tissue manganese:
- Not a reliable indicator of manganese status. It is often hidden and biounavailable.

REASONS FOR MANGANESE SUPPLEMENTATION

- To raise low sodium levels.
- To lower excessive iron, copper or other toxic metal levels.
- To help correct a low sodium/potassium ratio.
- To assist thyroid and adrenal gland activity.

MOLYBDENUM

GENERAL

Alkaline-forming element, less important mineral for nutritional balancing, but an important copper antagonist and key trace mineral in some enzymatic reactions.

SOURCES OF MOLYBDENUM

- Meats/organs - pork, lamb, beef liver
- Nuts/seeds - sunflower seeds
- Vegetables - soybeans, lima beans, lentils, peas
- Grains - buckwheat, oats, barley, wheat germ, sorghum

FUNCTIONS OF MOLYBDENUM

Excretory - purine metabolism
Metabolic - fat, aldehyde, uric acid metabolism, copper, iron and sulfur homeostasis
Detoxification - of copper, sulfate, sulfite, aldehydes
Skeletal - gout and cancer preventive?, high molybdenum in dental enamel
Molecular - electron transfer agent reacts with flavins
METALLOENZYMES
- Xanthine oxidase - purine metabolism
- Aldehyde oxidase - oxidation of aldehydes
- Sulfite oxidase - oxidation of sulfite

DEFICIENCY SYMPTOMS
Few symptoms in humans, possible dental caries. In animals, depressed growth and increased mortality.

TOXICITY SYMPTOMS
Acute - diarrhea.
Chronic - gout, copper deficiency symptoms such as hair loss, anemia, loss of hair color, osteoporosis, weight loss and growth retardation.

SYNERGISTS
iron, sulfur in enzyme reactions, fluoride in teeth

ANTAGONISTS
Absorption – methionine, protein, sulfur, zinc, copper in the diet.
Metabolic - Molybdenum is a powerful copper antagonist.

HAIR ANALYSIS NOTES
- Hair molybdenum levels are not that useful in the author's experience.
- Raises sodium in the mineral system of the body.

REASONS FOR MOLYBDENUM SUPPLEMENTATION
- To lower elevated copper levels. Excess supplementation can lower copper excessively.
- Somewhat toxic so do not use unless other methods are not sufficient to correct a high copper.

SELENIUM
GENERAL
Spiritual mineral because it helps develop brain centers, highly alkaline-forming element, needed by everyone today and low in most diets.

SOURCES OF SELENIUM
Seafood - oysters, tuna, mackerel, herring, lobsters, scallops, shrimp, pike, trout, carp, cod, flounder, salmon
Meats - liver, kidney, heart, beef, lamb, egg, pork
Nuts/seeds - brazil nuts, cashews, peanuts, walnuts
Grains - blue corn, wheat germ and bran, brown rice, barley
Vegetables - garlic, onions
Miscellaneous - brewer's yeast

ROLES IN THE BODY
- sulfhydryl agent
• anti-oxidant in glutathione peroxidase
• protection of cell membranes
• electron transfer agent
• important for the circulatory system, digestive organs, and reproductive system
• heavy metal detoxification.

FUNCTIONS OF SELENIUM
  Circulatory - needed for the heart muscle
  Excretory - protection from toxic metals
  Respiratory - involved in oxygen transport
  Digestive - intestinal homeostasis
  Nervous - protection from mercury and cadmium. Needed to develop certain higher brain functions.
  Reproductive - protection against birth defects
  Endocrine - synergistic with the sex hormones
  Blood - stabilizes the red blood cell membranes
  Integumentary - helps maintain hair, skin and nails
  Immune - enhances immune system in animals
  Metabolic - lipid and sulfhydryl metabolism; may prevent liver necrosis
  Detoxification - helps remove mercury, cadmium, silver, arsenic and peroxides

METALLOENZYMES
• Glutathione peroxidase - destruction of peroxides
• Aryl sulfatase - phenol-sulfate metabolism
• β-glucuronidase - glucuronide metabolism
• Lactic dehydrogenase - destruction of lactic acid
• Glutamic-oxalic transaminase - interconversion of amino acids

SELENIUM DEFICIENCY SYMPTOMS
  neonatal jaundice  alcoholic liver failure
  acanthocytosis  toxic metal poisoning
  oxidant damage
cancer

SYMPTOMS OF SELENIUM TOXICITY
  mottled teeth  nervousness
  selenosis  depression
  malignancy  dermatitis, pallor
  liver damage  gastrointestinal distress

SYNERGISTIC NUTRIENTS
  Metabolic - vitamin C, vitamin E, glutathione
  Absorption - amino acids, peptides, proteins

ANTAGONISTIC NUTRIENTS
  Metabolic - silver, arsenic, mercury, cadmium, titanium
Absorption - copper, mercury, silver, sulfate, other trace elements compete for absorption to some degree

HAIR ANALYSIS NOTES
High hair tissue selenium:
• May be due to the use of Selsun Blue shampoo or rarely contaminated water or another source of toxicity. This is not a usable form of selenium. However, shampoo usually does not cause frank poisoning.
• Rarely selenium is one of the “friends” or “amigos” with manganese, iron, aluminum and possibly chromium. This is a biounavailable form of selenium that must be removed from the body.

Low hair tissue selenium:
• This is very common, usually due to refined food diets or natural foods that are selenium-deficient.

REASONS FOR SELENIUM SUPPLEMENTATION
• Helpful for liver detoxification of all the heavy metals and toxic chemical agents as well.
• As an anti-oxidant to help prevent free radical damage.
• As a cancer preventive. Note that excessive selenium supplementation may be toxic.
• Can assist brain development in some people.
• Raises sodium in the mineral system.

ZINC
GENERAL
Sedative, anti-inflammatory, recent ‘male’ mineral, gentle strength, spiritual mineral associated with peace and harmony in the body, highly alkaline-forming, needed by everyone today.

SOURCES OF ZINC
Seafood - oysters, herring
Meats - beef, lamb, beef and pork liver
Nuts/seeds - sunflower, pumpkin
Dairy - cheese
Grains - wheat germ
Miscellaneous - brewer's yeast, maple syrup, bone meal, gluten, tea

ROLES IN THE BODY
• Activator of many key enzymes
• Growth and development
• Male reproductive system
• Insulin production and secretion
• Prevention of cadmium and copper toxicity

FUNCTIONS OF ZINC:
Circulatory - maintenance of artery walls
Respiratory - removal of carbon dioxide and maintenance of acid-base balance
Digestive - production of digestive enzymes, and normal liver function
Nervous - essential for brain development and neurotransmitters
Special senses - appetite regulation, smell and taste
Reproductive - testes, ovaries, prostate, male fertility, semen high in zinc
Endocrine - insulin and pituitary gonadotropin secretion
Blood - red blood cells and blood proteins
Skeletal - bone integrity, prevention of osteoporosis
Skin - required for normal integrity of hair, nails, and skin
Protective - required for wound healing and integrity of the immune system
Metabolic - normal carbohydrate and protein metabolism
Detoxification - assists in removing toxic accumulation of cadmium and copper
Psychological - mood stabilizer and "sedative" mineral

METALLOENZYMES
- Carboxypeptidase A & B, renal dipeptidase - digestion of protein
- Carbonic anhydrase - carbon dioxide transfer
- Glutamate dehydrogenase - deamination
- Malate dehydrogenase - citric acid cycle
- Alkaline phosphatase - phosphate metabolism
- Alcohol dehydrogenase - metabolism of alcohol
- Glyceraldehyde-3-phosphate dehydrogenase - glucose metabolism
- Leucine amino peptidase/dipeptidase - hydrolysis of peptides
- AMP aminohydrolase - conversion of AMP to IMP
- D-Aminolevulinic acid dehydrogenase - porphyrin synthesis
- DNA polymerase - DNA synthesis
- Cofactor for various peptidases, enolase, arginase, deaminase, lecithinase, aldolase and decarboxylase - degradative enzymes

ZINC DEFICIENCY SYMPTOMS
- alcoholic cirrhosis
- arteriosclerosis
- cadmium toxicity
- carbohydrate tolerance
- birth defects
- copper toxicity
- diabetes
- emotional problems
- failure to thrive
- fatigue
- hypoglycemia
- hypothyroidism
- impotence
- lack of taste and smell
- low appetite
- nervousness
- poor wound healing
- prostate problems

ZINC EXCESS SYMPTOMS (rare)
- iron deficiency anemia
- nausea, vomiting, diarrhea
- mental depression
SYNERGETIC NUTRIENTS
Magnesium, vitamin A, D, E, B6, high-protein diet, many other trace minerals depending on the enzyme system.

ANTAGONISTIC NUTRIENTS
Absorption - copper, cadmium, iron, chromium, manganese, selenium, phytic acid, vegetarian diets, soy, cereals, fiber in diet
Metabolic - copper, iron, cadmium

HAIR ANALYSIS NOTES
- Hair levels are not a reliable way to supplement zinc.
- Most of the population is zinc deficient, so everyone needs extra today.
- Zinc is called a 'masculine mineral' as it is important for male reproduction. It is called the 'gentle strength mineral' because of its stabilizing effects upon the emotions.

High hair tissue zinc:
- May be high to compensate for copper toxicity or other toxic metals.
- Often indicates hidden copper toxicity.
- Use of Head and Shoulders shampoo may result in a high zinc reading. This is not usually harmful, but it is best to reduce use of this product to once or twice weekly.
- Cadmium or other toxicity may displace zinc and cause a zinc reading to appear high.
- High zinc may act as a natural chelator or anti-oxidant to protect against metal or chemical toxicity.
- True elevated zinc and toxicity are rare, except for occupational exposure.

Low hair tissue zinc:
- May be a compensation to defend against a sodium/potassium ratio less than 2.5:1.
- Levels of 13-16 mg% are normal in fast oxidizers.
- Associated with emotional instability, and with problems of growth and development in children.

REASONS FOR ZINC SUPPLEMENTATION
- To lower sodium, copper and cadmium
- To raise potassium and phosphorus
- Symptomatic - for skin conditions and colds and flu.
- Everyone receives some zinc in nutritional balancing programs.

THE TOXIC METALS

ALUMINUM

SOURCES OF ALUMINUM TOXICITY
- beverages from aluminum cans (soda pop, beer, juices) unless the can is coated on the inside
- food cooked in aluminum cookware or foil
- use of aluminum-containing antacids
• use of anti-perspirants
• drinking water (aluminum is frequently added to municipal water supplies)
• baking powders used in many baked goods
• table salt – aluminum usually added as an anti-caking additive
• processed cheese
• bleached flour
• fluoridated water increases leaching of aluminum from aluminum pots and pans.
• all prepared foods made with tap water or salt usually contain aluminum. This includes all baked goods, sauces, almost all beverages such as sodas, some juices and thousands of other products.
• children are often born with elevated aluminum that is passed from mother to fetus through the placenta.

DETECTION OF ALUMINUM TOXICITY

Blood – may have value, however serum levels definitely do not indicate total body load of aluminum.

Hair - levels appear to correlate well with bone levels of aluminum. Several hair tests may be needed before aluminum is revealed on the test, as it may be sequestered within body tissues.

HOW ALUMINUM AFFECTS HEALTH

Nervous system - In animal studies, aluminum blocks the action potential or electrical discharge of nerve cells, reducing nervous system activity. Aluminum also inhibits enzymes in the brain (Na-K-ATPase and hexokinase). It may also inhibit uptake of important chemicals by nerve cells (dopamine, norepinephrine, and 5-hydroxytryptamine).

Behavioral effects - Dementia resulting from kidney dialysis related to aluminum toxicity causes memory loss, loss of coordination, confusion and disorientation.

Digestive system - Aluminum reduces intestinal activity. It is used in many antacids. An excess may cause colic.

SYMPTOMS OF ALUMINUM TOXICITY

Early symptoms: flatulence, headaches, colic, dryness of skin and mucous membranes, tendency for colds, burning pain in the head relieved by food, heartburn and an aversion to meat.

Later symptoms: paralytic muscular conditions, loss of memory and confusion. Other symptoms may include:

Alzheimer's disease            dental cavities
amyotrophic lateral sclerosis   hypoparathyroidism
anemia                         kidney dysfunction
hemolysis                      liver dysfunction
leukocytosis                   neuromuscular disorders
porphyria                      osteomalacia
colitis                        Parkinson's disease
                               ulcers
ANTAGONISTS AND CHELATORS
  calcium, magnesium, zinc, fluoride, vitamin C, deferoxamine

HAIR ANALYSIS NOTES
  • The ideal hair aluminum should probably be below 0.1 mg%. This is lower than most labs report.
  • Most hair tests indicate elevated hair tissue aluminum. This is not surprising as it is high in clay soils, in many foods and in the environment.
  • Hair levels may rise on retest hair mineral analyses during a nutritional balancing program as more aluminum is mobilized from tissue storage sites.
  • Aluminum may be hidden. Hidden aluminum indicators include a hair manganese above 0.04 mg%, hair iron above 2 mg%, and perhaps elevated chromium or selenium. These elements collectively are called the ‘amigos’ or ‘friends’ as they are often found together.

ARSENIC

SOURCES OF ARSENIC
  Some arsenic is found naturally in foods. Other sources include pesticides, beer, table salt, drinking water, paints, pigments, cosmetics, rat poison, glass and mirror manufacture, fungicides and wood preservatives.

POSSIBLE FUNCTIONS OF ARSENIC
  Some researchers believe that arsenic is an essential element in small quantities. Its functions are not clear, but may have to do with growth and blood formation.

DEFICIENCY SYMPTOMS
  In some studies, laboratory rats deprived of arsenic show slower growth, iron-laden spleens, and rough hair. Their offspring have fragile red blood cells. Deficiency in humans is not known.

TOXICITY SYMPTOMS
  enzyme inhibitor
  anorexia
  weakness
  diarrhea
  edema
  keratosis
  impaired healing
  dermatitis
  stomatitis
  liver dysfunction
  hair loss
  sore throat
  kidney damage
  vasodilation
  peripheral neuritis
  goiter
  vitiligo
  fluid loss
  headache
  vertigo
  muscle spasm
  stupor
  fever
  pallor
  jaundice
  abdominal pain
  herpes
  abnormal ECG
  interferes with uptake of folic acid
  inhibition of sulfhydryl enzymes
ANTAGONISTS
iodine, selenium, vitamin C

HAIR ANALYSIS NOTES
- The ideal hair arsenic level is probably about 0.007 to 0.009 mg%. This is lower than some laboratories suggest, but with nutritional balancing we can reduce it to these levels eventually.
- Arsenic, as with all the toxic metals, will not be revealed on early hair tests in most cases. It is revealed later as it is eliminated from the body through the skin and hair.
- Most people have arsenic overload due to water and food contamination.

**CADMIUM**

SOURCES OF CADMIUM TOXICITY
- All shellfish are the main source today.
- Food grown on cadmium-contaminated soil. Sewage sludge, fertilizers or irrigation water may contaminate soil.
- Large ocean fish - tuna, cod, haddock.
- Refined and processed foods.
- Contaminated drinking water.
- Processed meats, cola drinks and instant coffee.
- Cigarette and perhaps marijuana smoke.
- Occupational exposure - battery manufacture, semiconductors, welding, dental materials.
- Solder used in food cans.
- Brake linings, motor oil and exhaust fumes from cars.
- Artists paints.
- Air pollution - incineration of rubber tires, plastics and paints.
- Children today are commonly born with cadmium toxicity passed from mother to child via the placenta.

DETECTION OF CADMIUM TOXICITY
- "...Cadmium data from blood have little diagnostic value" (Cranston & Passwater, 1983). This is because cadmium is rapidly removed from the blood soon after it is ingested.
- Often, several months or even years of nutritional balancing therapy are required before cadmium may be revealed in the hair.

HOW CADMIUM AFFECTS HEALTH
*Cancer* – cadmium is a very toxic metal and usually associated with the development of cancers.
*Energy* - cadmium causes strong inhibition of essential enzymes in the Krebs energy cycle.
*Nervous system* - cadmium inhibits release of acetylcholine and activates cholinesterase. This results in a tendency for hyperactivity of the nervous system. Cadmium also directly damages nerve cells.
Bones and joints - cadmium alters calcium and phosphorus metabolism, thus contributing to arthritis, osteoporosis, and neuromuscular diseases.

Cardiovascular system - cadmium replaces zinc in the arteries, contributing to brittle, inflexible arteries.

Digestive system - cadmium interferes with production of digestive enzymes that require zinc.

Male reproductive system - prostate problems, impotence and testicular cancer can result from cadmium-induced zinc deficiency.

Endocrine system - zinc is required for growth and insulin release. Cadmium can contribute to failure to thrive, delayed growth development, and diabetes.

Excretory system - cadmium accumulates in the kidneys, resulting in high blood pressure and kidney disease.

Dental - cadmium toxicity can alter calcium and vitamin D activity, resulting in cavities and tooth deformities.

Psychological - cadmium toxicity is associated with learning disorders and hyperactivity, perhaps due to zinc deficiency or to inhibition of acetylcholine release in the brain. Cadmium is a lower “male” element associated with aggressiveness and “macho” behavior. It is also found commonly in criminals and psychopaths.

SYMPTOMS OF CADMIUM TOXICITY
alopecia, anemia atherosclerosis arteriosclerosis arthritis, osteo arthritis, rheumatoid bone repair, inhibited cancer cardiovascular disease cerebral hemorrhage cholesterol, elevated cirrhosis of the liver diabetes, emphysema enlarged heart failure-to-thrive syndrome fertility, decreased hyperlipidemia hyperactivity in children hypertension hypoglycemia inflammation lung disease migraine headaches osteoporosis renal disease schizophrenia sex drive, reduced strokes vascular disease

ANTAGONISTS
zinc, calcium, vitamin D, copper, iron, manganese, vitamin C, protein (particularly egg white). EDTA is used to reduce cadmium by some doctors, but not in nutritional balancing.

HAIR ANALYSIS NOTES
• The ideal hair cadmium level is probably about 0.005 mg%, lower than most labs suggest. We can reduce it this low eventually with nutritional balancing programs.
• Cadmium has an aldosterone-like action and can elevate the hair sodium level. When cadmium is eliminated, often the sodium level declines.
• Cadmium is considered one of the most toxic of the heavy metals. It is located just below zinc in the periodic table of the elements. It replaces zinc in vital enzyme binding sites.
• Cadmium is often not revealed on early hair tests. The metal is usually deeply buried and requires time to uncover and dislodge from storage sites in the body.

**LEAD**

**SOURCES OF LEAD TOXICITY**
• Leaded gasoline, 'Grecian Formula' or ‘Youth Hair’ hair dyes, manufacture of batteries, smelting industries, lead-based paints, cigarette smoke, colored inks, food cans soldered with lead, ceramic glazes, drinking water contaminated, pesticide residues, food contaminated with lead from the soil or from pesticide use, and contaminated water that has passed through lead-soldered water pipes.
• All American and European children are likely born with elevated lead, passed through the placenta from their mothers. This is not revealed on every hair test, however, as lead can be deeply buried in the bones and elsewhere.
• Diets deficient in calcium, magnesium, or iron increase lead absorption.
• Fast oxidizers are very prone to accumulate lead, as it replaces calcium that is usually in great demand in fast oxidizers. All babies and almost all young children are fast oxidizers.

**DETECTION OF LEAD TOXICITY**
*Blood serum* – excellent for acute lead toxicity. It is not as accurate for chronic lead poisoning because most lead is removed from the blood within 30 days of exposure and stored in the tissues such as the hair.
*Urine challenge tests(usually with EDTA)* – definitely better than serum tests, but still misses lead that is not easily chelated.
*Hair* – US Environmental Protection Agency review in 1979 showed hair to be an excellent method of testing for chronic lead poisoning. Several hair tests may be necessary before elevated lead levels are revealed.

**HOW LEAD AFFECTS THE BODY**
*Blood* - inhibits enzymes associated with hemoglobin synthesis, and increases the rate of destruction of red blood cells. End result is fatigue.
*Bones* - lead is incorporated into bone in preference to calcium.
*Brain* - can inhibit copper-dependent enzymes needed for neurotransmitters (dopamine, epinephrine, norepinephrine). End result is hyperactivity, mental dullness and lowered IQ, violence and anti-social behavior.
*Energy* - inhibits copper and iron-dependent enzymes in the Krebs cycle required for energy production. End result is fatigue.
*Kidneys* - lead can raise uric acid levels and impair kidney function. End result is gout.
*Minerals* - lead displaces and can cause deficiency or bio-unavailability of calcium, zinc, manganese, copper, and iron.
*Thyroid gland* - lead interferes with iodine uptake by the thyroid, and can inactivate thyroxin.
SYMPTOMS OF LEAD TOXICITY

*Musculo-skeletal system*
- arthritis, osteo
- arthritis, rheumatoid
- back pain, low
- rickets
- gout

*Hematological*
- anemia

*Nervous system*
- brain function, abnormal
- blindness
- convulsions
- deafness
- dyslexia
- encephalitis
- encephalopathy
- epilepsy
- fatigue
- insomnia
- multiple sclerosis
- muscular dystrophy
- Parkinson's disease
- vertigo

*Cardiovascular system*
- arteriosclerosis

*Digestive system*
- abdominal pain
- colic
- constipation
- liver dysfunction

*Reproductive system*
- abortions, spontaneous
- impotency
- infertility
- libido, diminished
- menstrual difficulties
- sterility
- stillbirths

*Glandular system*
- adrenal insufficiency
- hypopituitarism
- hypothyroidism

*Excretory system*
- nephritis, other

*Dental*
- pyorrhea, tooth decay

*Psychological*
- anxiety
- concentration, poor
- depression, mental
- hallucinations
- hyperkinesis
- memory impairment
- mental retardation
- mood swings
- nightmares
- psychotic behavior
- schizophrenia

ANTAGONISTS AND CHELATORS
- phosphorus, calcium, chromium, copper, selenium, magnesium, iron, zinc, dietary protein, vitamins C and E

HAIR ANALYSIS NOTES
- The ideal hair lead level is probably less than 0.06 mg%. This is lower than most labs suggest.
- As with other toxic metals, months or even years of nutritional balancing may be needed before lead is revealed as it is eliminated through the hair.
Hair dyes containing lead occasionally cause very high hair readings. Lead is easily absorbed into the scalp when these products are applied.

**MERCURY**

**SOURCES OF MERCURY TOXICITY**
- *All* fish, seafood and sea vegetables, especially larger ocean fish such as tuna, swordfish, shark and others.
- Vaccines preserved with thimerosal. This even includes some flu shots.
- Dental amalgams (silver amalgam fillings).
- Contaminated drinking water.
- Air pollution from burning coal.
- Seeds and vegetables treated with mercurial fungicides.
- Medications - diuretics, preparation H, contact lens solution and perhaps others.
- Chemistry sets, old thermometers and other older uses for mercury.
- All children are born with some mercury toxicity that is passed through the placenta from their mothers. Mercury can also be passed to children in breast milk.

**DETECTION OF MERCURY TOXICITY**

*Serum:* not used much because mercury is cleared rapidly from the blood, making it difficult to detect chronic exposure.

*Urine challenge test with DMPS or DMSA.* Used commonly by holistic physicians, this can detect some mercury, but misses a lot as well.

*Hair:* Hair better for chronic exposure, though it will shows acute exposure if severe enough. Levels of mercury in hair are about 300 times higher than blood levels. May require several tests to be revealed, as with all the toxic metals.

**HOW MERCURY AFFECTS HEALTH**

*Genetic* – birth defects, delayed development syndromes, autism and many others.

*Energy* - mercury compounds inhibit the enzyme ATPase, which impairs energy production in all body cells.

*Nervous system* - degeneration of nerve fibers occurs, particularly the peripheral sensory nerve fibers. In addition to sensory nerve damage, motor conduction speed was reduced in persons with high hair mercury levels. The most common sensory effects are paresthesia, pain in limbs, and visual and auditory disturbances. Motor nerve disturbances results in changes in gait, weakness, falling, slurred speech, and tremor. Other symptoms are headaches rashes and other neurological disorders.

*Endocrine system* - mercury has been shown to concentrate in the thyroid and pituitary glands, interfering with their function. Impairment of adrenal gland activity also occurs.

*Kidneys* - mercury can accumulate in the kidneys, where it may cause kidney damage.

*Psychological* – associated with the “mad hatters”, mercury causes severe emotional difficulties in susceptible individuals including ADD, ADHD, autism, confusion, timidity, “craziness’ and possibly some schizoid behaviors. It is associated with copper toxicity. Mercury is a primitive “female” element.