



SAMPLE HTMA - SUMMARY 8/11/2021

Fast and slow metabolizer types are ways that the body responds to stress. The stress may be from within, such as nutrient deficiencies or fatigue. Stress may also arise from a multitude of external sources such as exercise, occupational, and medications.

Oxidation Type:

You are a fast oxidizer. This means you use your minerals very quickly and often have low levels of calcium and magnesium. This results in increase adrenal activity and thyroid function. Overall, vitality is lost, and one can feel restless and edgy. Taking a look at one's lifestyle and stressors is important for improving the minerals of this pattern.

Individual Mineral Statuses:

Low calcium – yours 30 – ideal ## – Low calcium can lead to impaired thyroid function, blood sugar issues, muscle tension, sleep issues, and anxiety. Bringing magnesium and potassium into balance with help regulate calcium in the body. You need to increase calcium intake preferably through foods. Calcium and magnesium work together to maintain blood sugar. Calcium is necessary for a healthy nervous system.

Low magnesium - yours 2.1 - ideal ## – This indicates a magnesium deficiency. Magnesium is necessary for a healthy nervous system and over 500 metabolic functions in the body. The "fight or flight" stress response from your adrenals puts you in a "stress overwhelm" state resulting in an accelerated magnesium burn rate. It's also possible that your diet is lacking the necessary magnesium.

High sodium – yours 65 – ideal ## – This mineral is under stress and is being lost at a cellular level. It is suggested to support your sodium level with sea salt or Himalayan salt. Sodium is referred to as the "volatility" mineral. High hair sodium is indicative of excessive adrenal gland activity often indicates excitability and fast oxidation. High sodium indicates the stress response, known as "fight or flight". Sodium levels can be elevated by toxic metals, especially cadmium.

High potassium – yours 79– ideal ## – This mineral is under stress and is being lost at a

cellular level. Potassium helps regulate the heart, it is needed for muscle contractions, and it helps maintain blood pressure. The suggested RDA for potassium is for 4700mgs.

Low copper – yours 1.2 – ideal ## – Your copper is too low. Copper is necessary for immunity, healthy skin, and is necessary for proper estrogen production. Copper is also antibacterial and antifungal.

Low zinc -yours 15 – ideal ## – Your zinc is low. Zinc is necessary for immunity and is important for progesterone/testosterone production. Zinc can be low from poor digestion and absorption. Zinc may also be low if experiencing copper toxicity.

Low phosphorus – yours 12 - ideal ## – Your phosphorus level is low. Phosphorus is derived from protein. A low phosphorus level is frequently associated with inadequate protein synthesis. Although most diets are adequate in phosphorus, those on low-protein diets or vegetarians may have a low phosphorus intake. Zinc is required for protein synthesis. Often a low phosphorus level is associated with a Zinc deficiency, cadmium toxicity or zinc loss. When these imbalances are corrected, the phosphorus level improves. A low phosphorus level may be due to poor digestion or assimilation of protein. This may be due to digestive enzyme deficiency or low hydrochloric acid level.

Low iron – yours 1.2 – ideal ## – This level is likely low from poor absorption. Iron should rise when digestion and absorption improve. Iron is necessary to prevent anemia, as well as to form healthy hemoglobin. Hemoglobin is essential for moving oxygen into your blood from the lungs. Symptoms of low iron can be fatigue, restless legs, low stamina, and shortness of breath. Iron may be low if experiencing copper toxicity.

Low manganese – yours .009 – ideal .## – Your level is low likely to poor absorption. Deficiency symptoms may include impaired growth, skeletal defects, ataxia in newborns, and defects in metabolism. Manganese is involved in the formation of bone, amino acids, cholesterol, and carbohydrate metabolism. It also has a major role in cartilage formation. Excessive calcium inhibits manganese absorption.

Low chromium – yours .04 - ideal .## – Your chromium is low. Chromium is critical for carbohydrate, lipid, and nucleic acid metabolism. Chromium enhances the effects of insulin. It is an important part of the glucose tolerance factor. The glucose tolerance factor is believed to help glucose move across the cell surface.

Low selenium – yours .03 – ideal .## – Your selenium is low. Selenium is necessary for proper thyroid hormone conversion. Selenium helps in the conversion of the inactive T4 to the more active T3 thyroid hormone. Selenium is necessary for detoxification, particularly useful with high mercury.

Low boron – N/A - ideal .## – Your boron level is low. Boron is necessary for magnesium absorption. It is also essential for bone growth. Boron can impact the body's estrogen and testosterone.

Low cobalt - yours .001 – ideal ### - Your cobalt level is low. Cobalt is needed for supporting energy, metabolism, and mental health. A lack of stomach acid can contribute to a lack of vitamin B12, which is made in the body using cobalt. This element is mainly stored in the liver, activates numerous enzymes, and is excreted in bile.

High Molybdenum – your .008 – ideal .## – Your molybdenum is high. High levels of molybdenum reduce the normal elasticity of connective tissues such as tendons and can contribute to joint stiffness. Other symptoms associated with molybdenum excess include gout, arthralgia and increased uric acid levels. High levels may be present during copper toxicity.

Low sulfur – yours 3849 – ideal ## – Your sulfur is low. Adequate sulfur levels are important for detoxification. Add nuts, onions, garlic, shallots, and eggs to your diet to increase sulfur.

TOXIC ELEMENTS

Your uranium is high. You may want to have your home checked for radon as uranium tends to be found with radon gas. Granite is a potential source of uranium exposure. This level can also raise when there are other mineral imbalances. Keep in my mind that uranium exposure may also be related to the area in which you live. Pennsylvania is known to have high radon levels; this can prompt high uranium levels on an HTMA.

Your cadmium level is high. Cadmium is found in fertilizer and sewage sludge which comes from contaminating agricultural soil. Cadmium is used for plating and corrosion treatment of iron and steel. Cadmium is utilized in production of batteries and is contained in spray paints. Cadmium will displace calcium. Acute effects are toxic pneumonitis, which is the inflammation of the walls of the alveoli in the lungs. Chronic effects include renal dysfunction, nephropathy and osteomalacia. Long term exposure can result in emphysema and lung cancer.

ADDITIONAL ELEMENTS

Your barium is high. Elevated levels of barium often are observed after exposure to barium which is used as a contrast agent during diagnostic medical tests such as "barium swallow", "upper GI series", "barium enema", etc. Elevated levels of barium may interfere with calcium metabolism and potassium levels. Chronic exposure to barium may be manifested by skeletal muscle and cardiac muscle stimulation, tingling in the extremities, and loss of tendon reflexes. Due to its high density, barium is utilized to absorb radiation and is utilized in concrete shields around nuclear reactors and in plaster used to line x-ray

rooms. The main use of barium in medicine is as a contrast medium. Barium is also used to produce pigments in paints and decorative glass. Barium can be very high in peanuts and peanut butter. Barium levels in water can be assessed with water testing.

Your vanadium is high. Vanadium is a blue metal found from heating ore and crushing it. It is found in metal refining. High doses of vanadium are toxic to humans, but scientists think we may need the element in very small amounts for normal bone growth. Vanadium can be found in trace amounts in many types of food, including mushrooms, black pepper, parsley, dill weed, shellfish, beer, wine, and grain.

Most often, toxic elements and additional elements appear due to lack of other necessary minerals to combat them. When your minerals status improves, so will your ability to prevent the absorption of toxic elements.

Significant Ratios

Mineral ratios are at times more important than individual minerals levels. These ratios give us a cellular view of what is happening within the body and can let us know how bodily systems are functioning.

1) Metabolic type: (Ca/P) Calcium/Phosphorus - Ideal Ratio: ###/1

Your ratio: ###/1 - fast metabolizer

This ratio can indicate:

- Sympathetic dominance
- Increased adrenal function
- Increased thyroid function
- Fatigued but mind runs
- Impaired digestion

2) Stress & Vitality: (Na/K) Sodium/Potassium - Ideal Ratio: ###/1

Your ratio: ###/1

This ratio can indicate:

- Current stress level
- Wired but tired feeling
- Can indicate magnesium loss
- May experience sleep difficulties
- A need to keep going even though exhausted

- Restlessness and irritability
- Anxiety may be present
- Fatigue

**3) Thyroid Function: (Ca/K) Calcium/Potassium - Ideal Ratio: ###/1
Your ratio: ####/1**

This ratio can indicate:

- High calcium indicates a calcium shell. Can display as nervousness, hypersensitivity, muscle cramps
- Significant hypothyroidism

**4) Hormonal Function: (Zn/Cu) Zinc/Copper - Ideal Ratio: ####/1
Your ratio: ####/1**

This ratio can indicate:

- A high ratio can sometimes indicate hidden copper.
- Hormonal balance
- Zinc correlates with Progesterone in women, testosterone in men
- Copper correlates with Estrogen in both sexes

**5) Adrenal Function: (Na/Mg) Sodium/Magnesium - Ideal Ratio: ####/1
Your ratio: ####/1**

This ratio can indicate:

- Moderate adrenal fatigue
- Burnout
- Requires adrenal support
- Magnesium loss can contribute to adrenal burnout
- Can indicate magnesium deficiency

**6) Blood Sugar Balance: (Ca/Mg) Calcium/Magnesium - Ideal Ratio: ###/1
Your ratio: ####/1**

This ratio can indicate:

- Blood sugar imbalances

- Calcium contracts muscles, magnesium relaxes muscles
- Spasms in muscles
- Tight tense muscles

7) Infection Ratio: (Fe/Cu) Iron/Copper - Ideal Ratio: ####/1

Your ratio: #####/1

This ratio can indicate:

- A high ratio - may signify an infection – *Lyme disease, root canal infection*
- A low ratio - maybe associated with iron deficiency or thyroid disturbance.
- A high or low ratio can affect neurotransmitters

TIPS FOR OPTIMAL WELLNESS:

Supporting your liver during mineral balancing is helpful and often necessary for everyone. The liver can be overloaded with toxins from the environment, health/beauty products, and home cleaning products. It is important to take a personal inventory of what you are using on your body and what you use in your home (laundry detergent/fabric softener especially). The most common offenders are often anti-perspirants, perfumes, body washes, lotions, and cosmetics. Most anti-perspirants contain some form of aluminum or zirconium. Those 2 ingredients are often used to control perspiration. Stopping perspiration is a problem on many levels. Mostly, because you stop your own body's detoxification, sweating is way of allowing the body to get rid of toxins. Many of the common ingredients in perfumes, body washes, shampoos, lotions, and cosmetics can contain chemicals such as sulfates, phthalates, and parabens. They have been listed as [endocrine disruptors](#). Estrogen Dominance is on the rise for many men, women, and children. It is important for both women, men, and children to take note of what products they use daily. Even changing a few products can make a big difference in reducing your liver's toxic burden.

Your liver, which is responsible for over 500 metabolic functions, is very busy at night when you sleep between the hours of 1 am and 3 am. If you are waking during these times, it can be an indicator that your liver is struggling and could benefit from some liver support. The follow are very gentle and helpful ways to support the liver and detoxification: (Not necessary to do all of these, starting with one is a good place to start)

Evenbetternow® DETOX Bentonite Clay Baths - Soaking in sodium bentonite clay helps to remove both chemical and metal toxins out through the pores of the skin. For

many, taking regular clay baths or foot baths have radically improved their health. Our DETOX clay has the highest cation exchange capacity (CEC) of any bathing clay that was tested on the market. This means it has a strong “pulling power” to attract positively charged toxins and the unique molecular structure to ABSorb and ADSorb harmful contaminants. It is a safe, gentle, and easy way to detoxify without having to process impurities through the internal organs of elimination. You can read more about how clay baths work [here](#).

Red Desert Clay® - As an edible clay, Red Desert Clay is capable of removing toxins as well as any other clay recommended for internal use. This is partly due to its electrical charge. Every clay when hydrated has a particular negative ionic surface charge which determines its “pulling power”. The electrical charge in Red Desert® clay is quite strong due to the location where the clay is mined in the high California desert. The hot, dry, and arid desert conditions exceed 100 degrees regularly. This consistent heat causes the minerals in the clay to remain alkaline and retain their electrically active, negative charge. This gives Red Desert Clay it’s high-quality rate of ADSorption and ABSorption when taken internally. Also, the unique composition of Red Desert Clay contains 57 macro, micro and trace minerals, all in bio-available form, making it a great supplement for re-mineralization.

ADSorption is the process by which toxic substances stick to the outside surface of the clay. ABSorption describes the sponge-like effect where toxins are also drawn inside the clay particle. With the combination of tiny, tiny particle sizes and the adsorption/absorption capabilities, the structure of Red Desert Clay is powerful for picking up many more of the positively charged toxic particles we want to eliminate from our cells. You can read more about Red Desert Clay [here](#).

Please Note: Red Desert® Clay for All Animals is the very same top grade Red Desert® Clay that was previously labeled as edible for humans. We apologize for any confusion, but we were required to change the label due to government regulations a few years ago.

Zeolite Pure Mineral Clay - is volcanic ash that is orally taken. It binds on to toxins and helps remove them from the body. It has also been known for removing viruses. It is negatively charged by nature, which means it attracts the toxins like a magnet. A unique cage-like structure traps these body harming toxins and carries them out of the body. You can read more about Zeolite [here](#).

Bio-Chelat® - is a solution of oral drops that you take 3x daily to help remove metal toxins (not chemical) that are deeply embedded in the organs and tissues of the body. It is a German-patented formula that works in the gut through the Law of Isotonicity to gradually and gently capture heavy metal ions and remove them safely through the urine and stool. It is a unique liquid dietary supplement to help support the body’s natural detoxification processes and safe enough for babies. It has no side effects according to the manufacturer, even when taken long-term. You can read more about Bio-Chelat [here](#).

NOTE: Bio-Chelat would be most recommended for removing heavy metal toxicity only, especially long-term sequestered metal toxicity. The DETOX clay baths would be recommended most for those wanting to quickly detoxify safely and as half of a dynamic duo when used with Bio-Chelat for removing metals. The Red Desert Clay and Zeolite would be for internal use; although the RDC clay also makes a great external poultice, pack or facial.)

Milk Thistle is also very helpful to the liver. The silymarin extracted from milk thistle is known to have antioxidant, antiviral and anti-inflammatory properties. You can read more about it [here](#).

As toxins leave the body, sometimes unpleasant physical reactions can occur. Some of the reactions can be irritability, nausea, headaches, grogginess, and sometimes sleep disturbances. These are to be considered "healing reactions" as your body begins find homeostasis and they will become less and less.

Consuming a nutrient dense diet is essential when bringing the body back into balance. Strong digestion is needed for optimal break down of foods to allow proper nutrient absorption. Optimal stomach acid and bile are necessary to break down fats, proteins, and carbohydrates. Beets, spicy greens, ox bile, and dandelion root tea are all great for bile production and the gall bladder. [Digestive enzymes](#) can be helpful to improve digestion while your body is healing.

Probiotic foods (kefir/raw sauerkraut), organ meats, and properly prepared foods will help correct the digestion. Steaming is a great way to preserve nutrients in vegetables compared to boiling them. If you decided to boil your vegetables, it is recommended to drink the cooking water which is full of nutrients. Bone marrow broth or collagen can be added to your diet. This will help rebuild the stomach and intestinal lining. Collagen provides health amino acids that improve gut health. A healthy gut is your second brain, it is within the gut that building blocks are made for proper brain function, this includes neurotransmitters.

Take note of foods that cause the pancreas to release a lot of insulin. We are consuming more carbohydrates than ever before. This could come in the form of sugar, grains, orange juice, or a fresh vegetable juice. The body recognizes this as sugar and automatically makes the pancreases release a lot of insulin to balance out the sugar. Aloe vera is very gelatinous and stops the sugar from dumping into the bloodstream by adding in some valuable fiber. Collagen powder can also be added for additional protein. Both can minimize blood sugar spikes. Minimizing foods that cause our pancreases to release insulin at once is beneficial to decrease stress on the body.

It is recommended to change things one at a time when balancing minerals. This helps to see how the body is adjusting. Keeping a food diary is also helpful.

The combination of mineral balancing, blood sugar balancing, correcting digestion, and

removing toxins from the body will all contribute to bringing the body back into balance. Lifestyle, lack of minerals in the soil, environment, and many other factors will affect our bodies. We all need to be more conscious of our food choices, practice self-care, reduce stress, and limit your exposures to unnecessary toxins.

RECOMMENDATIONS:

- Recommend reducing the amount of strenuous and intense exercise. Light stretching, Pilates, yoga, Tai chi, Qigong, and walking are suggested.
- Increase intake of calcium rich foods. Broccoli, kale, spinach, kefir, Greek yogurt, and milk (if tolerated).
- Recommend maintain magnesium through food intake, topical magnesium lotion, or Epsom salt baths. Just don't overdo it. Topical magnesium is easily absorbed by the body vs. oral supplementation, it can still affect sodium levels. Magnesium rich foods include almonds, almond butter, kale, spinach, and chard.
- Recommend using sea salt freely at all meals. You may need more if stressed, exercising, or have been in heat. Saunas will induce sweating which will lower sodium. Himalayan, Redmond's, and Celtic Sea salts are all suggested. Avoid iodized table salt, it is devoid of all nutrients.
- Recommend increasing iron rich foods like black strap molasses, (which is also good for copper and potassium), red meat, legumes, and green vegetables.
- Recommend increasing manganese rich foods which include whole grains, dark chocolate, coconut water, birch water, cereals, and legumes.
- Recommend adding 4 prunes a day and eating the skins of organic potatoes to increase your boron.
- Recommended increasing cobalt rich foods such as fish, nuts, and green leafy vegetables.
- Recommend increasing molybdenum rich foods. Highest sources are found in milk, legumes, and cereals.
- Recommend diet consist of mainly cooked food. Lightly steamed or stir-fried. Raw food is hard to digest.

Suggested Supplements

Digestive Enzymes – follow dosage on bottle. Suggested brand: [Source Naturals Daily Essential Enzymes](#)

B – complex – follow dosage on bottle. Suggested brand: [Life Extension Complete B-Complex](#)

Overall, your pattern requires solid nutrition which needs to be acquired through diet and supplementation. Foods are completely balanced allowing the body to absorb each nutrient and mineral with its natural co-factors. Supplements do not replace food but are helpful.

It is recommended to retest in 3-4 months to see progress and make modifications to the program.

<https://www.evenbetternow.com/proddetail.asp?prod=Hair-Mineral-Analysis-Retest>

Should you have any questions, please feel free to contact me at rebecca.####@gmail.com