



Personalized HTMA Report

Report Date: 7/14/2023 – Fast 2

Hair analysis determines the metabolic rate of the body. There are two types, fast and slow metabolizers. This metabolic typing lets us know the way the body is responding to stress. The stress may be from within, such as nutrient deficiencies or toxicities. Stress may also arise from external sources like intense exercise, medications, or even occupational stress.

You are a FAST metabolizer – Fast 2

This means you use your minerals very quickly and often have low levels of calcium and magnesium. This can result in overactive adrenals and increased thyroid function. Overall, vitality is lost, and one can feel restless and edgy. Anxiety may often be present in a fast oxidizer. A diet of unrefined carbs, moderate protein, and a good amount of healthy fats are important. Looking at one's lifestyle, work habits, and stressors are important for improving the minerals of this pattern. Reduce strenuous, intense exercise. Practicing meditation, Pilates, or yoga are better choices for staying healthy and reducing stress.

It's important to note that it is suspected in your pattern that you are likely dealing with a copper imbalance. Your symptoms, your mineral pattern, and history of birth control are all factors in this determination. More information below about your copper imbalance.

SUMMARY OF YOUR MOST IMPORTANT MINERAL VALUES

CALCIUM		
IDEAL – 63	PREVIOUS – 110	CURRENT - 26

Low calcium – Calcium and magnesium work together to maintain blood sugar. Calcium is necessary for a healthy nervous system. Low calcium can lead to impaired thyroid function, blood sugar issues, muscle tension, sleep issues, and anxiety. Bringing magnesium, sodium, and potassium into balance will help regulate calcium in

the body.

MAGNESIUM		
IDEAL – 6	PREVIOUS – 6.8	CURRENT – 2.2

Low magnesium - Your magnesium level is low. This indicates a magnesium deficiency. Low sodium and potassium can make it difficult to restore and maintain magnesium. A low magnesium level can make sleep difficult, induce anxiety, depression may be present, and low energy. You may also have a low tolerance for stress.

SODIUM		
IDEAL – 19	PREVIOUS – 7	CURRENT – 12

Low sodium - Your sodium level is low. Sodium is necessary for fluid balance, blood pressure, and energy. Most importantly, sodium is necessary in the production of stomach acid. Increased sodium is needed for this pattern. Low hair sodium on an HTMA is an excellent indicator of impaired adrenal gland activity. A very low sodium is indicative of exhaustion. Excessive magnesium supplementation will lower sodium levels.

POTASSIUM		
IDEAL – 13	PREVIOUS – 3	CURRENT – 6

Low potassium - Your potassium is low. Low potassium increases the stress response which can lead to anger, anxiety, fatigue, and depression. Sleep issues are common with low potassium. Low potassium results in overall loss of vitality and muscle cramping. Potassium is necessary for good blood pressure and energy. Low potassium can sometimes be an indicator of "copper imbalance". Isolated vitamin D supplementation will lower potassium while driving calcium at times too high. Heavy metal toxicity and a copper imbalance can also keep potassium levels low. For example, mercury blocks the potassium channel, hindering absorption. It is necessary to supply adequate daily potassium intake from a variety of foods in the diet every single day. Potassium is not stored in the body and needs constant replenishment as it is a mineral that is significantly impacted by stress. The RDA is approximately 3800 – 4700 mgs. a day. Some people may need even a bit more.

Sodium and potassium remain low when there is chronic stress. Copper imbalance is a chronic stress to the body.

COPPER		
IDEAL – 2.2	PREVIOUS – 1.1	CURRENT – .9

Low copper - Your copper is showing low, but you have markers on your HTMA that indicate you are dealing with a possible copper imbalance because many of your other minerals are out of balance. It is very common to have low copper on your HTMA but be carrying lots of hidden copper in your body's tissues. You can be copper deficient and copper toxic at the same time. Copper hiding in the tissues of the body can cause stress and alter healthy mineral status. It is a leading cause of numerous mental and physical health conditions including anxiety, depression, premature aging, insomnia, fertility issues, and hormone imbalance.

Once your pattern shows less stress, we will have a better picture of your copper status. Copper is necessary for immunity, healthy skin, and is necessary for proper estrogen production. Copper is also antibacterial and antifungal. Disturbance in copper level can cause microbiome, parasites, and gut imbalances.

The most common causes for copper imbalance:

Birth control – (even if stopped long ago) birth control pills, hormonal IUDs, copper IUDs. These cause fluctuations in estrogen which is tied to copper in the body.

Previous of use of birth control is a main contributor to you underlying copper imbalance.

Passed in utero from mother to child - Mother has a high copper load; children are born copper imbalanced from the day they are born. Very common.

Copper water pipes – (past exposure counts, childhood home etc.) if your current home has them, you must change your drinking and cooking water to spring water or use filtration like Berkey or Radiant Life. Not all filters catch copper. Things like Brita, Zero, reverse osmosis, or refrigerator filters will not work for copper removal. See further notes below about filtration. *Please be very sure you do not have copper water piping in your home. If found, you will need to drink and cook with spring water or invest in a filtration system. See below for more information.*

Diet – vegetarian, vegan, plant based, pescatarian, Mediterranean, strict carnivore (high in organ meat, minimal vegetables). These diets are too high in copper foods and lack balance either through lack of fiber, iron, retinol, or zinc. Participation in these diets in the past counts. *It was noted on your intake form that you tend to eat higher protein and organ meats. Although those are helpful, it's important to keep balance with enough health carbohydrates from cooked vegetables and some fruit. Those also*

ensure you are getting enough fiber for proper elimination and the ability to sweep toxins and metals from the colon. It's also recommended to keep your intake of organ meats (liver, kidney, etc.) on the low side until we can get a better grip on your copper imbalance. Approximately 3-4 oz. a week is about where you want to keep it. Organ meat is very high in copper and although healthy, sometimes it can add to your copper load. This could further exacerbate your symptoms.

Estrogen therapy - estrogen therapy which is often used to relieve menopause symptoms. Although meant to be bioidentical, the majority of women are left copper imbalanced because of its use.

Copper stores in the body just like any other heavy metal. Mineral balancing is the best way to allow the body to recover from copper overload because it needs to be prompted by other minerals to leave. Chelation and detoxing do not work to remove copper and most often not any other metal. These practices tend to make the situation much worse. Please read more about copper imbalance [here](#).

SIGNS OF COPPER EXCESS IN THE BODY	
<ul style="list-style-type: none">➤ Skin issues like eczema, psoriasis, dermatitis➤ Thyroid/Adrenal imbalances➤ Estrogen Dominance➤ Sleep issues/Insomnia➤ Hair loss➤ Constipation/IBS/Crohn's	<ul style="list-style-type: none">➤ Candida/Yeast & Fungal Infections➤ Iron imbalance/Anemia➤ Anxiety/Panic Attacks➤ Racing mind/Overanalyzing/ Fearsome/Worrying➤ PMS/ Fertility Issues➤ Mental Health Issues like ADHD,ADD, OCD

To learn even more about copper imbalance, check out this link for a YouTube video:
<https://coppertoxic.com/movie>.

ZINC		
IDEAL – 16	PREVIOUS – 16	CURRENT – 12

Low zinc – Your zinc is low. Zinc is necessary for immunity and is important for progesterone/testosterone production. Zinc is a major mineral involved in the making of stomach acid in the body. Zinc may also be low if experiencing a copper imbalance.

PHOSPHORUS		
IDEAL – 16	PREVIOUS – 16	CURRENT – 12

Low phosphorus – 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. Copper imbalance can leave the body with low zinc level which affects the production of HCL in the stomach.

IRON		
IDEAL – 1.3	PREVIOUS – 1.4	CURRENT – .4

Low iron – 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 a copper imbalance.

OTHER IMPORTANT TRACE MINERALS:

Low boron – Your boron level is low. Boron is necessary for magnesium and calcium absorption. It is also essential for bone growth. Boron can impact the body's estrogen

and testosterone.

Low manganese - Your low manganese is likely low from copper overload.

Manganese is a great antagonist of copper. When copper is in excess in the tissues, manganese cannot build in the body properly.

Low cobalt - 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.

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 rise when there are other mineral imbalances. Keep in mind that uranium exposure may also be related to the area in which you live. For example, Pennsylvania is known to have high radon levels; this can prompt high uranium levels on an HTMA.

Your mercury is high. Mercury is used in amalgam for dental filling. Amalgam (mercury) fillings are 50% mercury by weight. Mercury fillings off gas 1 microgram of toxic mercury into the body, per filling, per day. Chronic mercury poisoning from amalgam fillings takes time to accumulate and express a related symptom. If you have them, they must be removed safely using a holistic dentist. To find a holistic dentist for SAFE amalgam (mercury) dental filling removal, go to www.iaomt.org. Toxic mercury vapor is continually being released from amalgam fillings where 80% of it enters the body and accumulates in it. Other sources of mercury may be environmental. Several species of seafood, fish, and sushi have all been found to contain high levels of mercury. Mercury can also be found in vaccines, as thimerosal and in CFL bulbs. Zinc,