



Unlocking the Potential of HTMA: What Every Practitioner and Client Should Know

Compliments of EatRight-LiveWell™ with Tam John | FNTP | Functional Nutrition expert

In the journey to bring about improved wellness, people seek better ways to understand their health and create health based on personalized methods. That's where Hair Tissue Mineral Analysis (HTMA) comes in. HTMA is a non-invasive test that provides valuable insights into a person's mineral levels and how they impact overall health.

In this article, we will explore the potential of HTMA and why every person should consider incorporating it into their wellness practice. From identifying mineral imbalances to assessing heavy metal and toxic elements, with an understanding of the body's stress response pattern, HTMA offers a comprehensive view of individual health.

Moreover, this article will delve into how HTMA can aid in establishing effective functional nutritional plans with an integrative approach to incorporate healthy individual lifestyle choices. By analyzing mineral ratios and deficiencies, HTMA is a screening tool to be used as a basis for personalized nutritional strategies and recommend targeted supplements, leading to a better feeling life.

If you are a person looking to enhance your bio-individuality and receive truly personalized care, this article is must-read. Unlock the potential of HTMA and transform the way you approach your food lifestyle.

What is HTMA (Hair Tissue Mineral Analysis)?

EatRight-LiveWell™ laboratory service provider Trace Elements says “[HTMA is an analytical test that assays the mineral composition of the hair](#). As a screening test in the preventive health care field, HTMA is providing invaluable as clinical results continue to validate its increasing use.

Interpreted correctly, HTMA may provide indications of mineral imbalances, deficiencies, and excesses of many essential and toxic elements.”

There are variances in the assay of an HTMA sample. Our provider evaluates synergistic relationships of 35 minerals, toxic elements, and additional elements, heavy metals, including their levels and importantly ratios. The measure of ratios is significant because of the element's interactive relationships to each other.



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The metabolic type provided reflects the body's stress patterns. This can be an indication of nervous system dominance, either sympathetic or parasympathetic; adrenal activity, and other hormonal patterns.

Contraindications are provided to suggest supplementation or nutrient intake avoidance until re-evaluation after the recommended dietary, nutritional supplementation, exposures, and lifestyle choices are followed.

Understanding the science behind HTMA

During hair's growth phase, increased metabolic activity exposes hair to the internal biochemical environment. This includes extracellular fluids, circulating blood, and lymph. Metabolic products accumulated during this hair formation period harden its outer layers and are locked in. The hair closest to the scalp is a record of metabolic activity.

The hair sample, through scientific examination reveals possible deficiency, excess, or bio-unavailability of that element within the body.

[“Data have been compiled from the available world literature on the accumulation and bioconcentration of selected toxic trace metals in human hair](#) and nails and other mammalian hair, fur, nails, claws, and hoofs. The toxic trace metals and metalloids include antimony, arsenic, boron, cadmium, chromium, cobalt, copper, lead, mercury, nickel, selenium, tin, and vanadium. These have been tabulated by toxic metal, geographic area, subjects, sex, age, exposure gradient, analyses in ppm, and authority, from over 400 references. . . The various uses of hair for biological monitoring are reviewed for correlating with environmental exposure gradients, diseases associated with excesses and deficiencies, geographic distribution, and historic trends It appears to be that if hair and nail samples are collected, cleaned, and analyzed properly with the best analytical methods under controlled conditions by experienced personnel, the data are valid. Human hair and nails have been found to be meaningful and representative tissues for biological monitoring for most of these toxic metals.”

— Jenkins, D. TOXIC TRACE METALS IN MAMMALIAN HAIR AND NAILS. U.S. Environmental Protection Agency, Washington, D.C., EPA/600/4-79/049 (NTIS PB80103997), 1979

Is blood serum a better indicator?

Minerals are contained in blood serum but may not be completely representative of the body's mineral storage. Serum concentrations may fluctuate with emotional changes, the time of day the blood is drawn, or foods eaten prior to taking a sample. As an example, serum magnesium



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can fluctuate depending upon the blood drawing technique. Iron deficiency can be present long before low serum levels can be detected.

Minerals are deposited by the blood into tissues, making excess accumulation of minerals go undetected with serum testing. As a protective measure, the body removes toxic metal lead from the blood and deposits into the liver, bones, teeth, and hair.

Calcium loss from the body can become so advanced that severe osteoporosis develops without appreciable changes in blood levels of calcium.

Benefits of HTMA

- Hair specimen collection is non-invasive, and more easily collected than blood, urine, or other tissue.
- Hair Analysis is more cost-effective than mineral testing through other means.
- Hair is less susceptible to the homeostatic mechanisms that quickly affect trace element levels.
- Hair provides information of substances entering the hair from blood serum as well as from external sources.
- Hair is highly valuable in the assessment of toxic metal levels.

Common applications of HTMA in practice

Minerals are the sparks that create energy. “[Minerals like calcium, phosphorus, magnesium, etc comes with amazing health benefits.](#) Some of the benefits include maintaining bone health, reducing muscular dystrophy- muscles weakness, promoting strong bones, maintaining blood vessels function, promoting dental health, improving brain function, ensuring blood circulation, and much more,” according to Natural Food Series.

They are antagonistic, meaning if one goes high, the other will go low. A few of the coactive mineral relationships include calcium and magnesium; copper and zinc; and potassium and sodium. Each of these are nutrients vital for life and for optimal function must be in balance with each other.

Personalized and functional nutritional therapy is evidence-based. Not all healthy food is healthy for all. HTMA is a means to hone the most efficacious food and beverages for a person. Without HTMA the advantageous recommendations can be indiscernible.

Overnutrition is a form of malnutrition where over consuming nutrients through food and supplementation results in a burden of nutritional imbalance. HTMA is a means to know the body’s unique needs for specific foods, dietary supplementation, and stress relief modalities.



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Taking incorrect types and amounts of supplements can contribute to overall biochemical imbalance.

Hormones are based on mineral production. Manganese and copper are necessary for neurotransmitter synthesis. Zinc is involved in the production, storage, and secretion of insulin. Zinc is also necessary for growth hormones.

Stress is inherent in every life. Physical and emotional stress can deplete the body of many nutrients, while also reducing bioavailability of nutrients. The stress pattern revealed through HTMA is a tool to hone physiological stress relief and support well-being.

HTMA can be useful to overcome mineral imbalances and toxicities caused by diet, stress, medications, pollution, and nutritional supplementation.

David L. Watts, Ph.D. states “Through proper interpretation, there exists a unique ability to recognize abnormal processes from trace mineral patterns found in the hair and other tissues. With specific dietary modifications, restoration or a more normal biochemical balance can be achieved, thereby eliminating many nutritionally related endocrine, neurological, and even emotional disturbances.”

Integrating HTMA into personalized nutrition plans

Minerals are trace elements. They are more important than vitamins because they cannot be synthesized by living matter. They must be acquired by through the food consumed. Dr. Emanuel Cheraskin states in his book, *Diet and Disease*, “Minerals have interrelationships with every other nutrient. Without optimum mineral levels within the body, the other nutrients are not effectively utilized.”

An effective functional and personalized approach to eating well must be based on bio-individual data. The data HTMA provides to reveal each person’s biochemistry is foundational to base personally nutritious food and integrative nutrition choices like supplementation and lifestyle.

Lifestyle nutrition guidance HTMA provides includes honoring stress patterns and intervening the current course to turnaround imbalances and deficiencies.

Tips for collecting and sending hair samples for analysis.

EatRight-LiveWell™ provides a Trace Elements hair sample kit that includes a paper scale, detailed directions, and envelope to send to the laboratory. It requires a small amount of clean (without hair styling products) scalp hair, taken from the root and not recently dyed, bleached, or permed. Medicated shampoos may contribute to artificially elevated levels of some minerals.



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Sampling scissors must be of high-grade stainless steel or plastic to avoid metal contamination of the hair sample. Thinning shears may also be used.

Cut hair should be placed directly into the hair specimen envelope provided and sealed with the glue flap only.

A one page form and mailing envelope are included.

Many people easily cut their own sample. Or ask a friend, partner, or barber/hair stylist to snip your sample.

Once the laboratory in Texas receives your sample via regular mail, the turnaround time varies from a couple of weeks to sometimes longer for EatRight-LiveWell™, your [HTMA practitioner](#), to receive your report.

View a sample [HTMA practitioner Trace Elements](#) report. Every client receives a 30-minute virtual results interpretation consultation with EatRight-LiveWell™. Results are immediately actionable for the client. After starting the rebalancing program, the client may experience symptomatic changes very quickly, usually within 10-20 days.

Sometimes, where excess body burden of toxic metals exists, the client may develop temporary discomfort during this period of elimination. Such discomfort can usually be alleviated by temporarily reducing the supplement program.

Schedule an Insight Call with [Tam John, Trace Elements HTMA Practitioner](#) to ask about HTMA and inquire about current pricing and easy ordering.

Retesting is recommended between 60 and 120 days if the client is observing the program. This is necessary to follow the client's progress and make necessary changes in the nutritional recommendations. If follow-up analysis is not performed within four months, we suggest that the supplement recommendations be discontinued.

Reference:

Hair Tissue Mineral Analysis (HTMA): Balancing Body Chemistry. 2011. Trace Elements, Addison, Texas



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