

What Your Hair Says About Your Health

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Many people are unaware that their hair holds valuable information regarding their health. Whether one is interested in preventing disease and maintaining optimal health or treating a chronic illness through either conventional or holistic methods, the first step is to evaluate the nutritional status of the individual. If essential nutrients are not being included in the diet in the correct proportions or are not being absorbed properly by the body, disease will undoubtedly present itself at some point in time. Your hair can tell you most things you need to know regarding your nutritional status. How can it do this?

Your hair is the closest thing your body has to a tissue biopsy when it comes to mineral assessment. Most metabolic processes take place at the cellular level. While blood can indicate nutrient levels, it functions primarily as a transporter of nutrients carrying vitamins, minerals and other nutrients to the tissues. It does not represent what is actually being absorbed into the tissues. Urine also contains nutritional information, however, it can only indicate what is being excreted by the body.

Many of us make great attempts to include healthy food choices in our diets, and the vitamin industry is now a booming market thanks to millions of North Americans ingesting billions of dollars worth of nutritional supplements each year. What is of key importance is how your body actually *absorbs* these nutrients. I see numerous clients in my clinical practice who eat all the right foods and take nutritional supplements, yet, they still do not function optimally in their daily lives. They often complain of symptoms such as fatigue, headaches, joint and muscle pain, digestive disturbances, osteoporosis, menstrual disturbances, skin disorders such as eczema and psoriasis, digestive disturbances, and so on. In addition, I also see many people who suffer from chronic disease or auto-immune disorders such as chronic fatigue syndrome and fibromyalgia for which conventional medicine and other healing methods have had little to offer.

To date, twenty minerals have been established as being essential to the human body, with more likely to come as nutritional research continues. It also has been well-established that deficiencies in these minerals can lead to a diseased state in the body including disorders such as anemia, metabolic disturbances such as acidosis, hormone imbalances as well as contribute to imbalances in other nutrients such as vitamins and essential fatty acids, producing many of the symptoms mentioned above.

For example, low levels of chromium, vanadium and manganese have been noted in hair samples of people who suffer from abnormal glucose tolerance, particularly diabetics. Supplementation of these nutrients in the correct dosages, as well as including foods in the diet rich in these minerals such as brewer's yeast, brown rice, whole grains, avocados, nuts and seeds and blueberries, can often help to regulate blood sugar levels. Many people suffering from symptoms of low thyroid have low levels of the trace mineral iodine in their system and including iodine-rich foods, such as kelp and asparagus, can help to balance the thyroid naturally. Other nutrients essential to proper thyroid function include copper, and zinc.

Deficiencies of vitamins and minerals can also cause an accumulation of *lactic acid* in the cells, producing metabolic acidosis. In response to the accumulation, the body activates the parathyroid gland to transfer calcium and magnesium to the tissues in an attempt to neutralize the lactic acid by salt formation. The excess levels of calcium and magnesium will then be excreted by the body, causing elevated levels of these minerals in the hair. Symptoms of metabolic acidosis can include fatigue, headaches, migraines, poor concentration and forgetfulness. These symptoms can often easily be remedied by supplementing with appropriate nutrients and including calcium and magnesium-rich foods to the diet such as salmon, leafy green vegetables, nuts and seeds and fruits such as apples, avocados and bananas.

While many people suffering from osteoporosis recognize the importance of maintaining adequate calcium levels in the diet, many do not realize the role boron plays in this disorder as well. Boron is a trace element required by the body for the proper maintenance of bone health. Without sufficient amounts of boron, calcium and magnesium cannot be optimally absorbed. In addition, boron aids in the body's production of estrogen and, therefore, is especially beneficial for menopausal women. Boron can be found in leafy green vegetables, fruits, nuts and grains. Unfortunately, modern-day soils are often depleted of this trace mineral so vital to bone health.

Another important factor that can be detected in the hair is the presence of heavy metals. Excess levels of contaminants such as lead, mercury and aluminum are commonly detected through hair analysis, particularly in those suffering from chronic ailments. High levels of lead in the body can be of particular importance to parents of children who struggle with learning disabilities, behavioural disorders and emotional disturbances, since a correlation between these symptoms and toxic levels of lead have been established. Vitamin E can prevent over-accumulation of lead to some degree while, nutritionally, one can include foods rich in sulfur and nitrogen to their diet such as eggs, cooked beans, onions and garlic as well as calcium-rich foods which help to chelate, or remove, lead from the body naturally.

Excessive concentrations of aluminum are known to produce toxic effects in the body involving insufficient calcium metabolism and hyper-parathyroidism, which contribute to poor bone integrity. High aluminum levels in the brain have been associated with pre-senile dementia and Alzheimer's disease. In addition to eliminating possible sources of aluminum contamination such as soft water, aluminum-based antacids, antiperspirants, aluminum cookware and processed foods one should include foods in the diet to displace aluminum from the body such as calcium-rich foods and supplementation with zinc, vitamin B-6 and vitamin C. Chronic contamination of barium, usually related to workplace or environmental exposure, have been linked to increased incidences of multiple sclerosis and other neurodegenerative diseases such as amyotrophic lateral sclerosis (ALS).

One can easily assess the levels of minerals and heavy metal contaminants through a *hair tissue mineral analysis* (HTMA). HTMA is a simple, non-invasive and inexpensive method of determining such imbalances in the body. It is necessary, however, to ensure the test results are being provided by a nutritionally-oriented health practitioner who can create a treatment program that specifically meets your dietary needs and correct nutritional imbalances.

While HTMA can provide invaluable information, it should be viewed as part of a greater picture and used along-side other diagnostic and healing techniques to ensure a comprehensive approach to balancing overall health.

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