

Hair Mineral Analysis

Special Points

of Interest:

- Mineral levels in the hair correspond to the levels of those minerals in the body.
- Minerals are essential for the normal healthy functioning of all living cells.
- Environmental factors contribute to mineral imbalances because of toxic mineral exposure.
- Improper dietary habits can also lead to mineral imbalances.

Inside this Newsletter:

<i>What is Hair Mineral Analysis?</i>	1
<i>Toxic Minerals</i>	1
<i>Mineral Imbalances</i>	2
<i>Importance of Minerals</i>	2
<i>The Key Ratios</i>	2

Uckele Health & Nutrition
P.O. Box 160
Blissfield, MI 49228
(800) 248-0330
www.uckele.com

What is hair mineral analysis and why should you have one done?

Hair mineral analysis is a laboratory test that measures mineral content present in the hair. A small amount of hair taken easily from the scalp is scientifically analyzed. The mineral content of the hair can give an over-view of the mineral levels in the body's tissues and the changes that occur over time.



Blood has to maintain a strict balance or homeostasis to sustain life. Unlike hair, blood mineral levels stay relatively the same even when the tissue mineral levels are changing.

Since hair is a living, metabolically active tissue, an accurate hair mineral analysis performed by a reliable laboratory can provide the health conscious consumer with valuable information including:

- Low and/or excessive levels of minerals detected in the hair can indicate corresponding high or low levels of these same minerals in the body.
- A possible indication of the body's ability to utilize certain minerals.

- An overview of the individual's current mineral status can also reflect toxic levels of undesirable elements including uranium, arsenic, beryllium, mercury, cadmium, lead, and aluminum.
- Important mineral ratios can be established that indicate metabolic balance. For example: Calcium/Phosphorus, Calcium/Magnesium, Sodium/Potassium, Zinc/Copper and others.
- Takes the guesswork out of deciding which important dietary and supplement changes are needed by each individual to help balance their current mineral levels.

Toxic Minerals

In today's modern environment, we are exposed to a number of toxic metals on a daily basis. Since 1980, the Environmental Protection Agency has maintained that hair can be utilized effectively to monitor

the highest priority toxic minerals. The concentration of lead found in the hair correlates well with the concentration of lead in the bones. The body's burden of mercury is accurately indicated in the hair as mer-

cury is deposited in the hair while it grows. Some toxic minerals stay in the blood very briefly after exposure and can be more easily detected in the hair.

Mineral Imbalances

There are many reasons for mineral imbalances to occur:

1. Mental, physical and emotional stress can contribute to mineral imbalances. Many nutrients are used more rapidly during these periods of stress and may need to be replenished.
2. Exposure to environmental toxins such as automobile exhaust, cigarette smoke, industrial pollution and commonly used household products can impact mineral absorption and utilization affecting the delicate metabolic balance of mineral levels and ratios in the body.
3. The use of medications can either increase or decrease mineral levels by affecting the rate of min-

eral utilization, the rate of mineral activity or the rate of excretion. Nutritional supplements can cause mineral imbalances by increasing or decreasing the levels of certain minerals.

4. Healthy diets can promote a proper mineral balance in the body. However, some food choices and certain dietary patterns may lead to mineral imbalances. These imbalances can occur by supplying too much or not enough mineral nutrients to maintain a healthy balance.
5. Excessive intake of processed foods, over-consumption of refined carbohydrates and heavily processed fats and oils or diets that focus on too few food groups

can lead to mineral imbalances.

6. Inherited genetic patterns can give a predisposition towards mineral imbalances. Genetic patterns can exist that contribute to mineral deficiencies and excesses.

Mineral imbalances affect essentially every tissue in the body and can be a major factor in a number of changes in the metabolism.



Importance of Minerals

“A healthy mineral balance can promote the healthy functioning of all living cells.”

Minerals are critically important for the normal healthy functioning of all living cells. Minerals have strong interactions with all other nutrients, especially the vitamins. For example, vitamin C improves the absorption of iron and vitamin D is essential for the proper utilization of calcium.

Minerals are necessary for energy production, fluid balance, normal growth, the formation and activation of hormones, bone formation, the rate of healing, and the health and balance of every cell and tissue in the body. Minerals also function as co-enzymes and enzyme activators. A healthy balance of minerals allows for a more efficient, balanced and healthy metabolism.

The Key Ratios

Minerals have strong interrelationships with each other to maintain metabolic balance. The ratios of minerals to each other are in many respects equally as important as the individual level of and single mineral. The ratios or balance between minerals can be an indicator of metabolic balance.

There are concerns about how some minerals interact with each other. For example, there is both an antagonism and synergism that occurs between minerals. Large doses of iron can reduce copper levels or make copper less available. However, these same minerals may complement each other as well. Copper and iron work together in the formation of hemoglobin. Similar patterns occur between other minerals and those corresponding ratios can give insight on the overall state of metabolic balance.



Uckele Health & Nutrition
P.O. Box 160
Blissfield, MI 49228
(800) 248-0330
www.uckele.com