

29
Cu
Copper
63.546

20
Ca
Calcium
40.078

30
Zn
Zinc
65.38

12
Mg
Magnesium
24.31

AVAZERA

Hair Tissue Mineral Analysis Report

Client: Sample (ORDER ID: 1111)

Report Date: December 1, 2020

INTRODUCTION TO HTMA INTERPRETATION

The interpretation of the results in this report is to be used as a guide only. Each person is biochemically unique and experiences a different environment, thus it is important to provide a range of information, such as patient history, metabolic type, occupation, symptoms, diet analysis, digestion/absorption status, current supplementation regimen, medication use, etc. It is important to consider each element that is outside the normal range, establish the possibility of exogenous sources (e.g., workplace, lifestyle) and assess the results in relation to other test results and information. Finally, the patterns and ratios can be used to give more insight.

As well as the interpretation of complex and sometimes conflicting nutritional symptoms, it is sometimes necessary to concentrate on the correction of the most significant issues rather than attempt to correct everything at once. Diet and supplementation are a complex issue and must be carried out with consideration of input from a qualified wellness professional.

Many vitamins and minerals interact and an excess of one can cause a deficiency of another. Indeed, this one of the values of hair analysis: it indicates these balances. Nutrients must work together to be absorbed and utilized effectively.

Hair analysis is widely recognized as a valuable tool for the detection of toxic heavy metals (Mercury, Cadmium, Lead, Arsenic, etc.) Research has shown that minerals in the hair are reflective of the total nutritional environment, including the input of protein, carbohydrate, fat, vitamins, and minerals.



Disclaimer: *This information is to educate and inform and is not intended for diagnosis or treatment. It is recommended to be used in conjunction with other information including patient history symptomatology, diet/nutritional assessment, etc. If you suspect a medical problem, please seek appropriate care.*

Hair Tissue Mineral Analysis Report

Toxic Elements	Reference Range	Unit
Aluminum (Al)	<10	12 ug/g
Antimony (Sb)	<1	0.02 ug/g
Arsenic (As)	<1	0.02 ug/g
Beryllium (Be)	<0.050	0 ug/g
Barium (Ba)	<1.50	0.45 ug/g
Cadmium (Cd)	<0.10	0.01 ug/g
Lead (Pb)	<1.00	0.06 ug/g
Mercury (Hg)	<1.00	0.41 ug/g

Nutritional Elements

Calcium (Ca)	375-875	560 ug/g
Chromium (Cr)	0.2-1.8	0.30 ug/g
Cobalt (Co)	0.02-0.20	0.046 ug/g
Copper (Cu)	12-38	11.3 ug/g
Iron (Fe)	8-18	12.2 ug/g
Magnesium (Mg)	44-98	56 ug/g
Manganese (Mn)	0.2-0.8	0.150 ug/g
Phosphorus (P)	125-250	145.9 ug/g
Potassium (K)	10-115	178.4 ug/g
Selenium (Se)	0.8-2.0	0.56 ug/g
Sodium (Na)	37-370	166.4 ug/g
Molybdenum (Mo)	0.03-0.15	0.039 ug/g
Strontium (Sr)	0.8-6.0	1.5 ug/g
Sulphur (S)	35000-55000	49350 ug/g
Vanadium (V)	0.01-0.15	0.008 ug/g
Zinc (Zn)	140-250	174.0 ug/g
Boron (B)	0.5-3.5	1.39 ug/g
Silicon (Si)	15-300	81 ug/g

SIGNIFICANT RATIOS

Element	Reference Range*	Your Result
Ca:Mg	4-20	10.00
Ca:P	1.5-7	3.84
Ca:K	2-40	3.14
Na:K	2-4	0.93
Na:Mg	0.2-2.2	2.97
Zn:Cu	4-17	15.40
Fe:Cu	0.20-1.5	1.08

HAIR TISSUE MINERAL ANALYSIS RESULTS

ALUMINIUM



YOUR RESULT
OUT OF RANGE

ABOUT ALUMINIUM

Aluminum is one of today's most toxic metals. Aluminum affects the brain more than any other body system. It impairs memory and interferes with sleep and cognition.

ALUMINIUM EVIDENCE RATING



ALUMINIUM TOXICITY SIGNS & SYMPTOMS

Early Symptoms

- Accumulation of gas
- Headaches
- Dryness of skin and mucous membranes
- A tendency for colds
- Heartburn
- An aversion to meat

Late Symptoms

- Loss of memory
- Confusion

Other Symptom

- Alzheimer's disease
- Dental cavities
- Anemia
- Hemolysis
- Colitis
- Ulcers
- Liver dysfunction
- Kidney dysfunction
- Hypoparathyroidism

INTERFERENCES AND IMPORTANT FACTS

- Dietary Aluminum may interfere with the absorption of Calcium, Iron, Magnesium and Phosphate
- **Hidden toxicity of Aluminum:** Aluminum poisoning may be hidden from a Hair Mineral Analysis. Hidden Aluminum indicators for a properly performed hair mineral analysis include:
 - A hair level of Manganese above 0.04 mg%
 - Hair Iron levels above 2 mg%
 - Possibly elevated Chromium or Selenium. Iron, Manganese and Aluminum are often found together

ALUMINIUM SUMMARY

ALUMINIUM AFFECTS

All muscle organs since Aluminum interferes with Magnesium:



ALUMINIUM SOURCES

- + Contaminated water for drinking
- + Some tea has high levels of Aluminum
- + Table salt + Baking Powder
- + Some Antiperspirants
- + Some vaccines and flu shots
- + Aluminum containing antacids and medicines
- + Food cooked in Aluminum cookware
- + Beverages and soft drinks in Aluminum cans or cardboard containers
- + Processed food such as cheese and bleached flour
- + Cosmetics

RECOMMENDATIONS ★★★

- Avoid products that contain Aluminum
- Test your drinking water
- Consume foods rich in Silica
- **Consume foods that detoxifies the body from heavy metals:**

- *Detox Heavy Metals | Avazera Spirulina and Chlorella Powder*

CADMIUM



YOUR RESULT
NORMAL

ABOUT CADMIUM

Cadmium is a heavy metal. Exposure occurs mostly in the workplace where cadmium products are made. The general population can be exposed to cadmium from cigarette smoke or eating cadmium-contaminated foods.

CADMIUM EVIDENCE RATING



CADMIUM SUMMARY

CADMIUM AFFECTS



CADMIUM SOURCES

- + **Seafood:** crab, mussels, oysters, scallops
- + **Congenital Cadmium:** passes easily through the placenta in utero and enters developing fetuses
- + Liver and kidney meats
- + Contaminated drinking water
- + Cigarette smoking
- + Air pollution
- + Certain foods grown in Cadmium laden soil

RECOMMENDATIONS ★★★★★

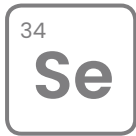
- Selenium protects against Cadmium toxicity
 - Avazera Brazil Nuts
- Zinc and Copper are important nutrients that protect the body against Cadmium
- Iron, ascorbic acid, and protein can reduce the absorption of low levels of dietary Cadmium
- Calcium may reduce oral Cadmium toxicity
- Sauna

INTERFERENCES AND IMPORTANT FACTS

- Cadmium interferes with the metabolism of Iron, Copper, and Zinc as well as Vitamin D
- Cadmium causes loss of Calcium with the possibility of kidney stones and osteoporosis
- Cadmium interferes with the function of the cell surface protein that exchanges Sodium and Potassium
- Cadmium interferes with the function of the adrenal gland that makes adrenaline medulla
- Cadmium can impair the body's ability to make blood sugar from protein or fats
- Cadmium can escape from landfills (where trash is buried) and get into the ground or ground water. From there, it can become a part of the food and water that humans and animals ingest.*
- The more Cadmium in the body the less Zinc

HAIR TISSUE MINERAL ANALYSIS RESULTS

SELENIUM



YOUR RESULT
OUT OF RANGE
 This element is in **deficiency**

ABOUT SELENIUM

Selenium is one of the most important elements for immunity. When it comes to human papillomavirus or HPV, or any virus problem for that matter, it is crucial that you are getting adequate amounts of selenium in your diet or using a supplement. Glutathione requires selenium for its production. It is the granddaddy of all antioxidants. Every single condition we associate with aging has been linked to lowered glutathione levels.

Studies have shown that individuals who maintain the highest levels of glutathione remain the healthiest and live the longest. Selenium in humans tends to be one of the most common deficient minerals!

SELENIUM EVIDENCE RATING



SELENIUM DEFICIENCY SIGNS & SYMPTOMS

- Infertility in men and woman
- Muscle weakness
- Fatigue
- Mental fog
- Hair loss
- Weakened immune system

SELENIUM SUMMARY

SELENIUM AFFECTS



DIGESTION RESPIRATORY HAIR/SKIN/
 NAILS BLOOD



REPRODUCTIVE

SELENIUM FUNCTIONS

- **Circulatory:** needed for the heart muscle
- **Excretory:** protection from toxic metal
- Selenium prevents the body fat from going rancid (age Spots – liver spots)
- Selenium is the most efficient antioxidant
- Selenium prevents bilipid layer membrane from oxidative damage
- **Endocrine:** synergistic with the sex hormones
- Detoxification: helps remove Mercury, Cadmium, Silver, Arsenic and peroxides
- **Nervous:** protection from Mercury and Cadmium
- **Immune:** enhances immune system in animals
- **Metabolic:** lipid and sulfhydryl metabolism; may prevent liver necrosis
- Selenium deficiency may result in infertility of both women and men

SELENIUM SOURCES

- + Seafood
- + Meats
- + Nuts/Seeds: Brazil Nuts
- + Grains

RECOMMENDATIONS ★★★★★

- Incorporate the various selenium food sources listed above
- Avazera Brazil Nuts (2 Brazil Nuts per day should give you your daily recommended Selenium needs)

What are our evidence recommendations based on?

- Our recommendations are based on a review of current scientific literature that relates to mineral analysis.
- We have developed an Evidence Rating System that explains both the reliability of the Hair Tissue Mineral Analysis for a particular mineral as well as the recommendations given.
- The Hair Tissue Mineral Analysis Report has been co-written by Avazera's scientific advisor Ramiz Saad, a Biochemist. He is a well-developed research scientist with over 35 years of versatile experience on water, food, tissue, and environment industries. His area of expertise and contributions is in the data.



**High levels of
evidence available**



**Moderate levels of
evidence available**



**Low levels of
evidence available**