

16 HARKER STREET
BURWOOD VIC 3125

LAB ID : 3814150
UR NO. :
Collection Date : 09-May-2022
Received Date:09-May-2022



3814150

Hair Mineral Analysis

Summary At A Glance

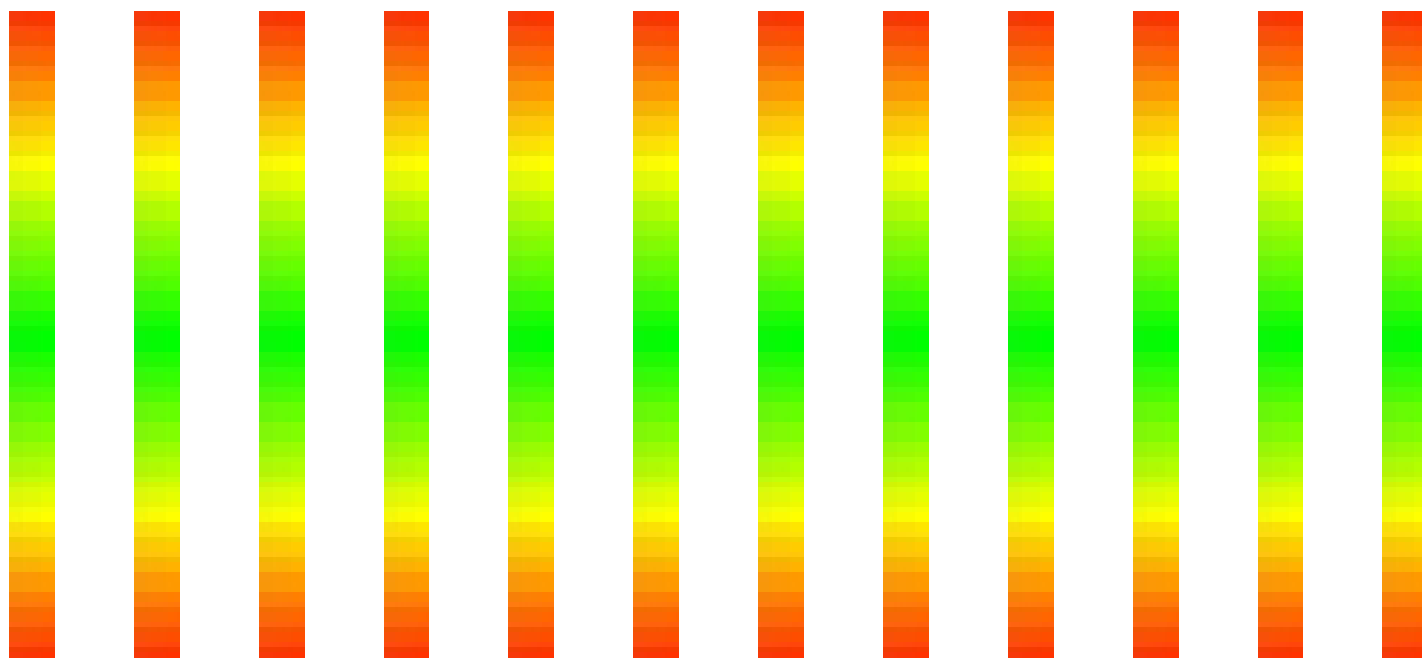
Essential Mineral Deficiency

Selenium
Zinc

Essential Mineral Excess

Toxic Elements

Essential Mineral Ratios



Ca/Cu	Ca/Fe	Ca/Mg	Ca/Sr	Ca/Zn	Fe/Cu	Fe/Mn	Zn/Cr	Zn/Cu	Zn/Fe	Zn/Mg	Zn/Mn
Calcium/Copper	Calcium/Iron	Calcium/Magnesium	Calcium/Strontium	Calcium/Zinc	Iron/Copper	Iron/Manganese	Zinc/Chromium	Zinc/Copper	Zinc/Iron	Zinc/Magnesium	Zinc/Manganese
42.6	36.2	16.3	699	4.3	1.2	35.9	960	9.9	8.4	3.79	302

Result
Range

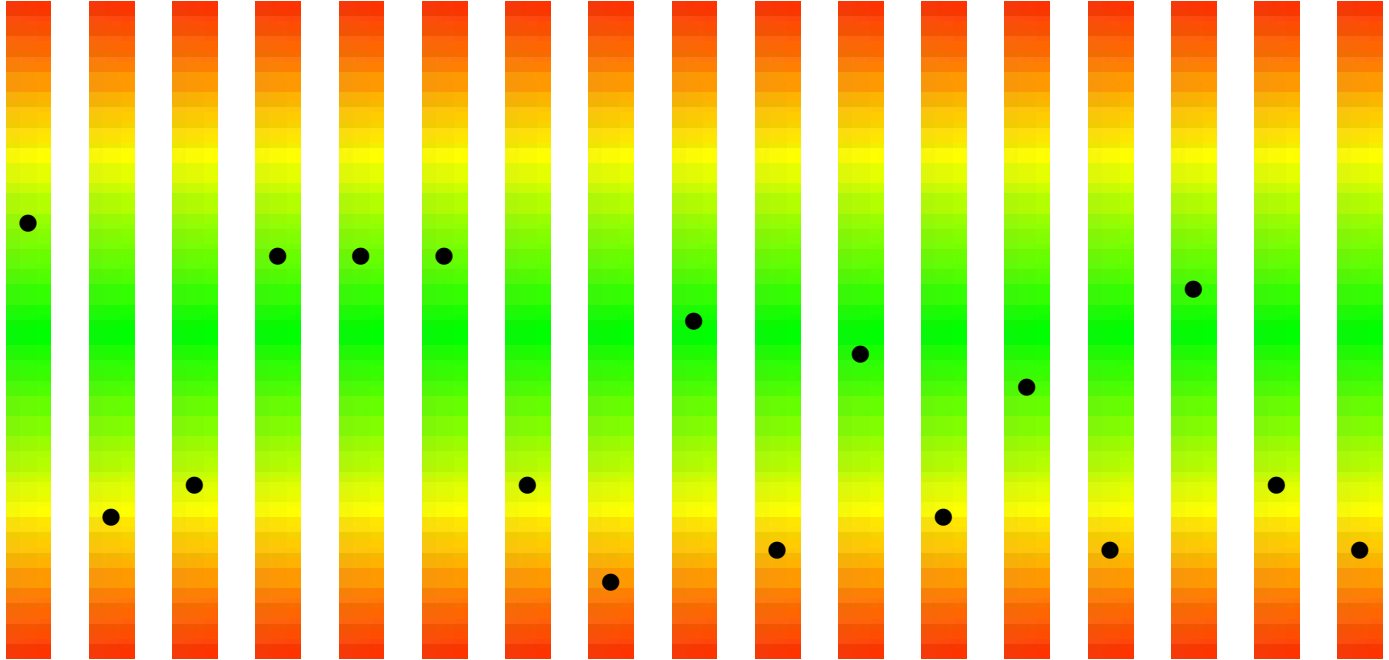
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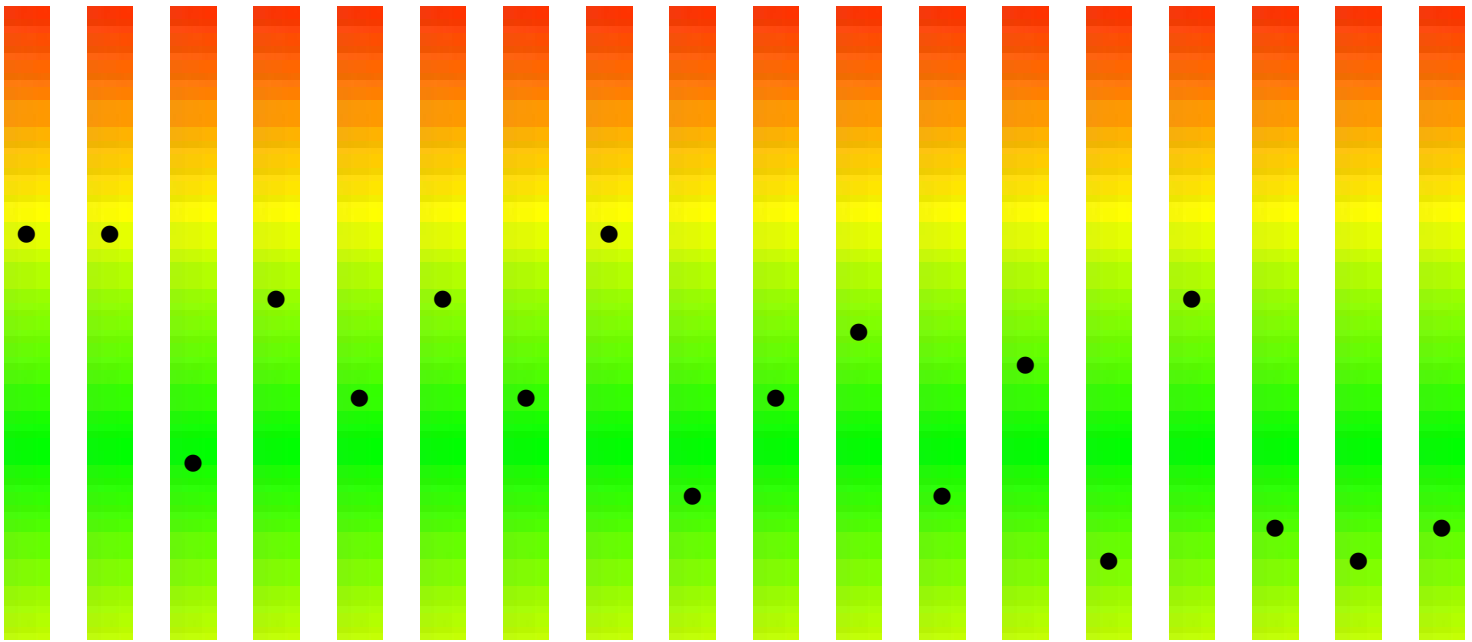
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Essential Minerals



Cr	Co	Cu	Iod	Fe	Mn	Mo	Se	Van	Zn	cal	Mg	Bor	Ger	Li	Str	Tun
Chromium	Cobalt	Copper	Iodine	Iron	Manganese	Molybdenum	Selenium	Vanadium	Zinc	Calcium	Magnesium	Boron	Germanium	Lithium	Strontium	Tungsten
0.11	0.01	10.7	2.44	12.5	0.35	0.13	0.30 *L	0.08	106 *L	454	27.9	0.63	<DL	0.11	0.65	<DL
0.02 - 0.15	< 0.15	6.7 - 37.0	0.15 - 3.50	7.7 - 15.0	0.07 - 0.50	0.02 - 1.00	0.40 - 1.40	0.01 - 0.15	110 - 227	200 - 850	20.0 - 130.0	< 2.00	< 0.50	< 0.20	0.11 - 4.28	< 0.02

Toxic Elements



Al	Ant	As	Bar	Be	Bis	Cd	Pb	Hg	Ni	Pd	Pt	Ag	Thal	Sn	Ti	U	Zc
Aluminium	Antimony	Arsenic	Barium	Beryllium	Bismuth	Cadmium	Lead	Mercury	Nickel	Palladium	Platinum	Silver	Thallium	Tin	Titanium	Uranium	Zirconium
6.11	0.14	0.04	1.48	0.01	0.10	0.07	2.22	0.03	0.32	0.05	0.01	0.39	<DL	0.42	0.01	<DL	0.05
< 8.00	< 0.20	< 0.20	< 2.65	< 0.03	< 0.18	< 0.20	< 3.00	< 0.30	< 0.85	< 0.10	< 0.07	< 1.00	< 0.01	< 0.70	< 0.65	< 0.10	< 1.47

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Laboratory Comments

LOW/LOW NORMAL SELENIUM LEVEL:

Increased susceptibility to cardiovascular disease and diminished thyroid function are possible results of deficiency. Impaired resistance to oxidative stress also occurs. Extremely low levels are associated with increased cancer risk and cardiomyopathy.

Unbound selenium is known to be a strong prooxidant with similar valences as oxygen. It is toxic at high levels. Small amounts are required for glutathione peroxidase.

Protects against hydrogen peroxides and lipid peroxides in the cytosol and mitochondria. Selenium is also involved in deiodination of T4 (thyroxine) to T3, whereas reverse T3 does not require Selenium (Wilson's Syndrome).

Sources:

Grains (soil dependent), seafood, organ meats, garlic, mushrooms. Vegetable sources may be better absorbed.

Therapeutic Considerations:

Recommended Daily Intake: 70mcg. Available in a number of forms and generally well absorbed from the duodenum.

Vitamins C, E Retinal and Reduced glutathione improve absorption. Heavy metals and phytates inhibit absorption.

LOW/LOW NORMAL ZINC LEVEL:

Deficiency may result in poor wound healing, poor sense of smell and taste, hypochlorhydria, night blindness, and immune dysfunction. Pregnant women, cancer and burn patients are at high risk for zinc deficiency, causing fatigue, poor growth, menstrual problem and sexual maturity problems. Deficiency causes are malnutrition and malabsorption. Zinc is necessary for spermatogenesis, protein synthesis and degradation, haeme synthesis, CO2 transport, metabolism, RNA polymerases and the cytosol component of SOD. Because it has a fixed outer electron valence of +2 it can inhibit many iron based free radical reactions by displacing iron from its binding site. Zinc can also be toxic at high levels.

Sources:

Meats, crustaceans, nuts, seeds, leafy and root vegetables.

Therapeutic Considerations:

Recommended Daily Intake: 15mg, however keep in mind that only 20-30% of zinc ingested is absorbed, therefore suggest doses of 50mg/day and Vitamin B6 is needed for utilization.

Competition with Calcium, Iron and Copper can significantly impair absorption, as can high phytate foods and folic acid supplementation.

LOW/LOW NORMAL MAGNESIUM LEVEL:

Low hair magnesium has been linked with hypoglycemia, and in certain circumstances schizophrenia, depression, hypertension and increased cardiac risk. Deficiency results in muscle weakness/spasm.

Magnesium is necessary for RNA/DNA synthesis, protein synthesis, ATP synthesis via both glycolysis and Krebs Cycle, muscle contraction and nerve conduction, and cAMP production.

Because it has a fixed outer electron valence of +2 it can inhibit many iron based free radical generating reactions by displacing iron from its binding site. Magnesium has been shown to be helpful in preventing heart disease.

Therapeutic Considerations:

Recommended Daily Intake: 400mg. About 30-60% of dietary forms are absorbed via small intestine. Stool fats decrease absorption, as do phytate and fibre. Vitamin D mildly increases absorption. Taurine deficiency causes urinary wasting.

Metals within range.