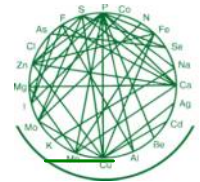


MICRO TRACE MINERALS GmbH

environmental & clinical laboratory



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service@microtrace.de

MINERAL ANALYSIS		Hair		Lab Number	
Dr. X		Test Date		1H10215X	
Patient Name		Age		Sex	
Sample Report		44		w	
Clinical Information		Immune- and Nervous Disorder			

Essential Macroelements (ppm = mg/kg = mcg/g)	Low	Acceptable Range	High
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Acceptable Range Test Value

Calcium	220.00 -- 1600.0	561.80	*****
Magnesium	20.00 -- 130.00	40.79	*****

Essential Trace Elements (ppm = mg/kg = mcg/g)	Low	Acceptable Range	High
--	-----	------------------	------

Acceptable Range Test Value

Chromium	0.03 -- 0.68	0.03	<
Cobalt	0.02 -- 0.57	0.02	*****
Copper	10.00 -- 41.00	54.75	High *****
Iodine	0.05 -- 5.00	0.18	*****
Iron	4.60 -- 17.70	5.33	*****
Manganese	0.12 -- 1.30	0.18	*****
Molybdenum	0.02 -- 1.00	0.05	*****
Selenium	0.21 -- 5.46	0.97	*****
Vanadium	0.01 -- 0.73	0.01	<
Zinc	150.00 -- 272.00	151.00	*****

Nonessential Trace Elements (ppm = mg/kg)	Low	Acceptable Range	High
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Acceptable Range Test Value

Boron	0.07 -- 9.00	0.25	*****
Germanium	< 1.65	0.00	<
Lithium	< 0.53	0.00	<
Strontium	0.65 -- 6.90	1.20	*****

Potentially Toxic Elements (ppm = mg/kg = mcg/g)	Low	Acceptable Range	High
--	-----	------------------	------

Acceptable Range Test Value

Aluminum	< 8.00	5.28	*****
Antimony	< 0.60	0.01	*****
Arsenic-total	< 1.00	0.06	*****
Barium	< 4.64	0.51	*****
Beryllium	< 0.20	0.00	<
Bismuth	< 0.27	0.00	<
Cadmium	< 0.20	0.03	*****

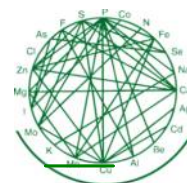
< Test value below Detection Limit

These 95percentile Reference Ranges listed above are representative for a healthy population. All elements are tested quantitatively.

Accreditation: DIN EN ISO 17025; Quality control: Dr. Rauland PhD; Validation: Dr E.Blaurock-Busch PhD

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MINERAL ANALYSIS		Hair		Lab Number 1H10215X	
Doctor	Dr. X	Test Date		13. Apr. 10	
Patient Name	Sample Report	Age	44	Sex	w
Clinical Information	Immune- and Nervous Disorder				

Potentially Toxic Elements (ppm = mg/kg = mcg/g)			High
--	--	--	------

Acceptable Range Test Value

Element	Acceptable Range	Test Value	Result
Cerium	< 0.10	0.00	<
Cesium	< 0.01	0.00	<
Dysprosium	< 0.01	0.00	<
Erbium	< 0.01	0.00	<
Europium	< 0.01	0.00	<
Gadolinium	< 0.02	0.00	<
Gallium	< 0.22	0.03	*****
Iridium	< 0.01	0.00	<
Lead	< 3.00	1.02	*****
Lutetium	< 0.01	0.00	<
Mercury	< 0.60	0.50	*****
Nickel	< 1.00	0.12	*****
Palladium	< 0.04	0.00	<
Platinum	< 0.01	0.00	<
Praseodymium	< 0.01	0.00	<
Rhenium	< 0.00	0.00	<
Rhodium	< 0.01	0.00	<
Ruthenium	< 0.45	0.00	<
Samarium	< 0.01	0.00	<
Silver	< 1.00	0.31	*****
Tantalum	< 0.01	0.00	<
Tellurium	< 0.02	0.00	<
Thallium	< 0.01	0.00	<
Thorium	< 0.03	0.00	<
Thullium	< 0.00	0.00	<
Tin	< 0.70	0.09	*****
Titanium	< 2.20	0.22	*****
Tungsten	< 0.06	0.02	*****
Uranium	< 0.15	0.02	*****
Ytterbium	< 0.01	0.00	<
Zirconium	< 1.47	0.01	*****

< Test value below Detection Limit

These 95percentile Reference Ranges listed above are representative for a healthy population. All elements are tested quantitatively.

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Sample Report

1H10215X

Your Analysis Determined The Following Mineral Deficiencies And Excesses. Since it is difficult to distinguish treated samples from untreated ones, it is assumed that the spectroanalytical analysis was performed on chemically untreated hair as requested in our laboratory brochure. Chemically treated hair does not provide reliable results and TMI does not assume responsibility for data obtained from treated hair. The information contained in this elemental analysis report is designed as an interpretive adjunct to normally conducted diagnostic procedures. The findings are best viewed in the context of a medical examination and history.

COPPER (Cu) Brain and liver are the main storage sites, while the liver is the main organ for excretion. High hair levels of copper suggest elevated liver storage, and the body's inability to complex copper with amino acids such as histidine, threonine and glutamine. This insufficient complexing prevents the transport of copper between the liver and various peripheral tissues. High hair copper levels have been linked to headache, dizziness, depression and mood disorders, migraines, an increased sensitivity to pain, collagen disease, leukemias and other malignancies. Symptoms include nausea, diarrhea, vomiting, and discoloration of skin. High copper levels are often accompanied by zinc deficiency. High copper levels increase the toxic effect of selenium and suppress iron absorption.

SOURCES: shellfish, nuts, organ meats, eggs, cocoa, chocolate, Brewer's yeast and copper-rich drinking water.

THERAPEUTIC CONSIDERATION: To normalize levels, evaluate iron, manganese, zinc and molybdenum levels. These trace elements are natural antagonists of copper, and deficiency in one of those elements may cause increased absorption of the others. Vitamin C increases the copper excretion, especially when used with amino acids and vitamin B6. In cases of chronic copper intoxication, chelation may be recommended.

Sample Report

1H10215X

The following nutritional program is aimed at providing optimum health. The program is suitable for patients 12 years and older. It is recommended for 3-4 months, after which a repeat analysis is recommended. A follow-up test would evaluate and determine your body's ability to digest and absorb nutrients. If any questions or problems arise, consult your medical doctor or health care provider.

To normalize copper levels, support liver function and increase your intake of B-vitamins and antioxidants. Avoid chocolate, meat, oysters and other copper-rich foods. Testing of drinking water may be recommended, provided your drinking water flows in copper pipes.