

MINERAL ANALYSIS			U۵	Hair					
WIINERAL ANAL 1 313									
			Lab	Number		1H147735			
Provider	Be Well Med				Test Date	22/07/2014			
Patient Name	Jane Doe		Sex		f	D.O.B.	01/01/1964		
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	Acceptable Range	Test Value	•						
	Elements (ppm = r								
Chromium	0.02 0.21	0.83			1		A		
Cobalt	0.01 0.30	0.02				A			
Copper	10.00 41.00	31.78				A	_		
Iodine	0.05 5.00	2.91				A			
Iron	4.60 17.70	13.27				A			
Manganese	0.05 0.92	0.26				A			
Molybdenum	0.03 1.10	0.04				A			
Selenium	0.40 1.70	0.78				A			
Vanadium	0.01 0.20	0.08				A			
Zinc	150.00 272.00	204.29				A	_		
	elements (ppm = r	mg/kg = mcg/	'g)						
Calcium	220.00 1,600.00	2,403.16			1		_		
Magnesium	20.00 130.00	153.91	1						
	ace Elements (ppn	n = mg/kg = r	ncg/g	1)					
Boron	< 0.84	0.39				A			
Germanium	< 1.65	0.01					_		
Lithium	< 0.30	0.00				<u> </u>			
Strontium	0.65 6.90	8.87	1		ı		<u> </u>		
Tungsten	< 0.01	0.00				A			
	c Elements (ppm =	: mg/kg = mc	g/g)						
Aluminum	< 8.00	15.46	1				<u> </u>		

n.n. = not detected

Accreditation: DIN EN ISO 17025; Quality control: Dipl. Ing. Friedle, Ing. J. Merz, Dr. Rauland; Validation: Dr. E.Blaurock-Busch PhD, Laboratory physician: Dr. med. A. Schönberger



Antimony	< 0.30	0.04	A

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	Acceptable Range	Test Value		<u>'</u>				
	Elements (ppm = m		_J /g)					
Arsenic-total	< 0.20	0.01		A				
Barium	< 4.64	4.11			A			
Beryllium	< 0.10	< 0.01						
Bismuth	< 0.20	0.09						
Cadmium	< 0.20	0.02		A				
Cerium	< 0.10	0.01			_			
Cesium	< 0.01	< 0.01			_			
Dysprosium	< 0.01	< 0.00			_			
Erbium	< 0.01	< 0.00			_			
Europium	< 0.01	< 0.00			_			
Gadolinium	< 0.10	0.00			_			
Gallium	< 0.20	0.00			_			
Iridium	< 0.01	< 0.01						
Lanthanum	< 0.03	0.01			_			
Lead	< 3.00	0.93			_			
Lutetium	< 0.01	< 0.00			_			
Mercury	< 0.60	0.21			_			
Nickel	< 1.00	0.34			_			
Palladium	< 0.10	< 0.05						
Platinum	< 0.01	< 0.01			_			
Praseodymium	< 0.01	< 0.01			_			
Rhenium	< 0.01	< 0.01						

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Rhodium	< 0.01	< 0.01	

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	Acceptable Range	Test Val						
Potentially Tox	ic Elements (ppm = r	mg/kg = mcg	g/g)					
Ruthenium	< 0.10	< 0.00						
Samarium	< 0.01	< 0.00		-				
Silver	< 1.00	0.36		A				
Tantalum	< 0.01	0.00		A				
Tellurium	< 0.01	< 0.01						
Thallium	< 0.01	< 0.00						
Thorium	< 0.01	< 0.01						
Thulium	< 0.00	< 0.00			_			
Tin	< 0.70	0.81	1		<u> </u>			
Titanium	< 1.50	0.28		A				
Uranium	< 0.10	0.03						
Ytterbium	< 0.01	< 0.00		-				
Zirconium	< 0.50	0.38			A			

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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.



ALUMINIUM (AI) is commonly ingested with food, medicine and water.

COMMON SOURCES: soft drinks, medications, and certain treated waters. All is also used in certain covering called Waraq which is another source of silver in India as well as Ayurvedic medicines. Aluminum cooking vessels may also be a cause of excessive Al- intake. For decades, aluminum was considered virtually non-absorbable and was thus freely used in a variety of food additives and over-the-counter drugs such as antacids. New research suggests that Al can cause neurological changes as seen in Alzheimer's and Parkinson's disease, and dialysis dementia. Al can bind to DNA, resulting in abnormal neurofibrillary tangles in the brain. Al inhibits the enzyme, hexokinase. It is absorbed in the intestine and excreted via the kidney. Al can be deposited in bones, particularly in the presence of calcium deficiency. TOXICITY SYMPTOMS include muscular coordination problems, colic and gastric irritation.

THERAPEUTIC CONSIDERATION: Increased blood levels indicate increased exposure and uptake. To decrease uptake and increase elimination, support digestive and kidney function and check calcium balance. Check hair tissue levels to confirm or rule out longterm exposure. Chelation treatments support the binding and elimination of Aluminum. Comparing pre and post urine levels is a direct reflection on the chelaing agents binding capacity and the body's ability to detoxify.

CALCIUM (Ca): high tissue levels of chemically untreated hair reflect malabsorption problems and a masked deficiency, which is caused by calcium being drawn from bones and redistributed into other tissues such as hair. Thus, high hair levels reflect bone withdrawal and osteoporotic tendency. Calcium deficiency symptoms such as unhealthy hair, nail and teeths, muscle cramping at night, insomnia, menstrual problems, nervousness and irritability may be present. When such deficiency symptoms are present, moderate calcium supplementation is recommended in combination with a low fat diet and increased activity level. To further support the calcium absorption and to normalize tissue levels, digestive aids and an increased intake of lecithin are recommended.

CHROMIUM (Cr) overexposure may be caused by breathing contaminated industrial air or by contact exposure to chromate dust or other forms of chromium pollution. This environmental (hexavalent) form of chromium is known to result in inflammation of the skin and nasal passages, and lung cancer. An excess intake of nutritional chromium supplements rarely results in high tissue levels, but may be considered as a possible cause. Whole grain, brewer's yeast, molasses, wheat germ and mushrooms are high in chromium. THERAPEUTIC CONSIDERATION: Removal of person from exposure location; DMPS oral chelation therapy

MAGNESIUM (Mg) is an essential element with both electrolyte and enzyme-activator functions. High hair tissue levels reflect early bone withdrawal and maldistribution into tissue such as hair. In most cases, high hair levels are signs of a masked deficiency and can be confirmed with deficiency symptoms such as weakness, confusion, personality changes, muscle tremor and spastic tendencies during mild exercise, bizarre muscle movements, esp in the face, swollen gums, skin lesions, lack of coordination and digestive disorders. GOOD FOOD SOURCES: all fruit and dark green vegetables, nuts, legumes, wholegrain cereals and breads. THERAPEUTIC CONSIDERATION: B-Vitamins aid magnesium absorption.

TIN (Sn) is considered essential, because some studies suggest that tin deprivation depresses growth in rats. Tin is poorly absorbed and retained by humans and is excreted mainly in the feces. Once tin is absorbed, both the bile and urine are routes of excretion and the level of accumulation seems related to the intake. Large amounts of tin can accumulate in foods that are in contact with tin plate or are absorbed as tin fluoride from toothpaste. Tin has a low toxicity, but tin salts are gastric irritants causing nausea, vomiting, and diarrhea. High tin levels influence the metabolism of several minerals, including calcium, zinc and alkaline phosphates activities in liver and femur. Tin is a potent inducer of heme oxygenase and thus affects hemedependent functions. TOXICITY SYMPTOMS: vomiting, diarrhea, abdominal cramps, loss of appetite, tightness of chest, metallic taste in mouth, dry throat. Excessive inhalation of tin oxide can cause Stannosis (pneumoconiosis).

THERAPEUTIC CONSIDERATION: avoid toothpaste, containing stannous fluoride. Check calcium and zinc levels.

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STRONTIUM (Sr) possesses physiological and chemical properties similar to calcium. Strontium is poorly absorbed by humans, and the intestinal uptake lies between 5-25%. Of that, about 99% is found in bone and teeth. People living in areas where high levels are found in the water supply, show higher tissue levels. The daily intake varies considerably from 1mg/day to 4.7mg/day, according to geography. Strontium can interfere with the calcium metabolism, leading to bone disorders, incl. rickets. THERAPEUTIC CONSIDERATION: Strontium may compete with the calcium absorption and storage in bone and teeth and when high hair strontium levels are followed by high hair calcium level, the need for an increased calcium supply is indicated. Algae and fibrous cellulose reduce strontium and calcium utilization.

n.n. = not detected

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The following nutritional program is aimed at providing optimum health. The program is suitable for patients 12 years and older. It is recommeded 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.

Aluminum (AI)

To reduce the aluminum uptake, support digestive function. Increase fiber intake and support intestinal function. Lactobazillus acidophilus improves the intestinal pH and flora, which in turn reduces the aluminum uptake.

Calcium (Ca)

To improve calcium utilization, reduce consumption of dairy products. Avoid fatty foods and increase intake of fiber foods and digestive enzymes to improve digestive function. Physical activity greatly aids the utilization of calcium.

Chromium (Cr)

Avoid industrial chromium exposure. Chromium-rich foods are rarely the cause of high chromium exposure: however, temporarily avoid yeast products and cooking in chromium cookware.

Magnesium (Mg)

High magnesium levels of hair may indicate a masked deficiency and an increased need for magnesium. Check blood levels.

Strontium (Sr)

An increased intake of vegetable fiber, seaweed and calcium can normalize strontium levels.

Tin (Sn)

To reduce tin levels, avoid canned foods and fluoride toothpastes. Increase Riboflavin intake