Micro Trace Minerals Laboratory

environmental & clinical laboratory

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MINERAL ANALYSIS — Hair

		Lab Number		1H122030	
Doctor				Test Date	3/9/2012
Patient Name		Sex	f	D.O.B.	2/20/1984
Clinical Information				Page	1/3

	Acceptable Range	Test Value		
Essential Trace Elements (ppm = mg/kg = mcg/g)				
Chromium	0.02 --- 0.21	0.04		
Cobalt	0.01 --- 0.30	0.00	↓	
Copper	10.00 --- 41.00	24.18		
Iodine	0.05 --- 5.00	0.63		
Iron	4.60 --- 17.70	4.92		
Manganese	0.03 --- 1.10	0.05		
Molybdenum	0.03 --- 1.10	0.02	↓	
Selenium	0.40 --- 1.70	0.74		
Vanadium	0.01 --- 0.20	0.00	↓	
Zinc	150.00 --- 272.00	194.18		
Essential Macroelements (ppm = mg/kg = mcg/g)				
Calcium	220.00 --- 1,600.00	637.64		
Magnesium	20.00 --- 130.00	36.26		
Nonessential Trace Elements (ppm = mg/kg)				
Boron	0.08 --- 1.30	0.16		
Germanium	< 1.65	0.00		
Lithium	< 0.30	0.00		
Strontium	0.65 --- 6.90	0.64	↓	
Tungsten	< 0.01	0.00		
Potentially Toxic Elements (ppm = mg/kg = mcg/g)				
Aluminum	< 8.00	1.14		
Antimony	< 0.30	0.01		

n.n. = not detected
These 95percentile Reference Ranges listed above are representative for a healthy population. All elements are tested quantitatively.
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

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MINERAL ANALYSIS — Hair

Patient Name	J	Lab Number	1H122030	Page	2/3

	Acceptable Range	Test Value	
Potentially Toxic Elements (ppm = mg/kg = mcg/g)			
Arsenic-total	< 0.20	0.06	
Barium	< 4.64	0.22	
Beryllium	< 0.10	0.00	
Bismuth	< 0.20	0.02	
Cadmium	< 0.20	0.01	
Lead	< 3.00	0.39	
Mercury	< 0.60	0.31	
Nickel	< 1.00	0.06	
Palladium	< 0.03	0.01	
Platinum	< 0.01	n.n.	
Silver	< 1.00	0.13	
Thallium	< 0.01	0.00	
Tin	< 0.70	0.07	
Titanium	< 1.50	0.16	
Uranium	< 0.10	0.02	
Zirconium	< 0.50	0.02	

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MINERAL ANALYSIS		Hair			
Patient Name	Lab Number		1H122030	Page	3/3

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.

COBALT (Co) is part of the Vitamin B12 molecule and is necessary for Vitamin B12 activity and function. Cobalt, which is mainly stored in the liver, activates numerous enzymes, and is excreted in bile. A low dietary intake inhibits fetal development and may reflect a low intake of Vitamin B12. SOURCES: all animal products, including all meats, fish, cheese, brewer's yeast and yeast extracts. Strict vegetarians (vegans) and those who lack intrinsic factor risk vitamin B12 and cobalt deficiency. SYMPTOMS include pernicious anemia. THERAPEUTIC CONSIDERATION: increase vitamin B12 intake and/or consumption of cobalt-rich foods.

MOLYBDENUM (Mo) deficiency has been linked to gout. Low levels in heavy meat eaters reflect digestive disorder, the need for digestive enyzmes and dietary changes. Such patients should avoid pork, beef, whole grain and rather eat poultry, fish and other light proteins. Vegetarians should either add some meat to their diet or take molybdenum chelate with B-vitamins, which aid the absorption of molybdenum. Dietary molybdenum is readily absorbed by the intestine and is excreted in the urine and bile. SOURCES: whole grains, legumes, leafy vegetables and organ meats. The recommended daily intake is 0,15-0,5 mg/day, depending on age and status. Acute deficiency symptoms are unknown in humans. Excess intake of copper, zinc, and sulfates can depress Mo-update, causing disturbances in the uric acid cycle. Low molybdenum levels have been associated with impotency, increased cancer susceptibility, gout, dental caries, defects in the metabolism of sulfur-containing amino acids,and asthma.

STRONTIUM (Sr) has similar physiological and chemical properties as calcium, but essentiality has not been established. In humans, strontium is poorly absorbed in the intestinal tract, but younger people have a higher rate of absorption. Clinically, strontium has long been associated with strong teeth and bones. Studies suggest that strontium improves resistance to dental decay, claiming that in areas where the water contains more natural strontium and molybdenum, the rate of tooth decay is lower than in areas where the drinking water is fluoride-enriched. Strontium may improve cell structures and its function reflects that of calcium. SOURCE: drinking water, depending on geography, Brazil nuts, bran, root vegetables and milk. Vitamin D (and exposure to sunshine), lysine and arginine improve absorption. When magnesium deficiency is present, the strontium absorption is decreased.

VANADIUM (V): the biological function of this trace element has not been substantiated and deficiency symptoms have not been established; however there is evidence that this trace element influences the glucose metabolism, the sodium/potassium transport and the adrenal catecholamine metabolism. Vanadium appears to catalyze the oxidation of catecholamines and inhibit cholesterol synthesis and lower phospholipid levels. It may have anti-diabetic, weight-reducing function and anticaries effects. SOURCE: fiber-rich foods, dill seeds, parsley and black pepper. Vanadium is highly concentrated in vegetable oils. THERAPEUTIC CONSIDERATION: high fiber diet, use of vegetable oil instead of animal fats.

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.

Co

Increased Vitamin B12 intake is recommended. Check with your physician.

Mo

To improve molybdenum levels, increase intake of molybdenum-rich foods such as whole grains, legumes, leafy vegetables. B-vitamins improve the molybdenum absorption. Ask your doctor about molybdenum supplementation.

V

To improve vanadium levels, increase intake of soy, corn and sunflower oil. Avoid animal fats.

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Health history for hair test 621

1. **What are your current symptoms and health history?**

1982-often sick, higher temperatures
1987 - pneumonia
2 1/2 years old otitis media
5 years old - scarlet fewer, headaches, belly pain-psychosomatic cause doctors wrote
1992 headaches -right site sinusitis,belly pain - bronchopneumonia bilater
11 years old - appendix surgery, chickenpox
1994 - asymetric back
1997 - 1 year lasting hedaches (cause stress, puberty?), scolsiosis th levis
2002 - painful knee when longer walking, scolsiosis structuralis idiopatic adolescenta
25 years old - tonsillitis
27 years old - positive test for epstein barr virus-cmv virus, i had 1 year problem with higher temperature few days a week, feeling sick and tired, palpitations.
since march 2011 after having cold with blisters in my throat, those blisters still persists
27,5 years old - perioral dermatitis, twisted ankle
august 2011 - I found a bulb in my underarm,it was bigger lymphnode, I was checked and it was 1.2 cm big. In september 2011 I was checked again and it was 0.4 cm big. Doctor saiy it is only swollen node, nothing bad.
23.1.2012 i had weird numbness in my leg around ankle(the one I had twisted) this lasted for a few hour and came back next day for few hours aswell, painfull thighs-weird burning pricking pain.
2012- amalgam removal:
chest pain, shortness of breath,kydney pain, liver pain, headaches, upset stomach, weight loss,joints pain, short tyrn memory problems, numbness like feeling in arm, cheeck, leg.., muscle weakness, twitching, pinches and needles in skin,

2. **Dental history (Wisdom teeth removed and when? Any other extractions. First root canal placed? Braces? First amalgam etc…)**

Three wisdom teeth are out, 1 is still growing. all amalgam fillings replaced with composite fillings. 12 in total + 2 partial in front teeth
amalgam removal: 1 filling I pulled out myself by accident, 2 fillings in august 2011 without coffer dam
27.1 2012- 1 filling with coffer dam
2.2 - 2 fillings with coffer dam
9.2- 3 fillings with coffer dam
16.- 3 fillings with cofferdam

3. **What dental work do you currently have in place? What part of the dental clean-up have you completed?**

Composite fillings

4. **What dentistry did your mother have at any time before or during pregnancy?**

a few amalgam fillings

5. **What vaccinations have you had and when (including flu and especially travel shots)?**

1984 TBC, tuberculine, difteria 3x, tetanus 3x, pertusis 3x,
1985 polyiomyelitis 2x, morbilli
1986 polyiomyelitis 2x, rubeola
1988 tetanus
1995 trimovax-poliomyelitis
1996 polyiomyelitis
1998 tetanus
1999 difteria
2002 tbc 2x
2003 flu vaccination, hepatitis vaccination

6. **Supplements and medications (including dosages) taken at time of hair test, or for the 3-6 months before the sample was taken?**

B complex 1 pill daily, dont know how much anymore.

7. **What is your age, height and weight?**

28, 176cm, 55kg

8. **Other information you feel may be relevant?**

I used chlorella for 1/2 year after first amalgam removal just like a supplement

I ate salmon 2x per week for about 1 year.

9. **What is your location – city & country (so that we can learn where certain toxins are more prevalent).**

Netherlands, but I live here just 4 years.