TMI Trace Minerals International Laboratory

good chemistry for better health

1426 Pearl Street; Suite 201, Boulder, CO 80302, USA P.O.Box 4613, Boulder, CO 80306-4613, USA



MINERAL A	St	Stool					
		Lab Number			5St180204		
Doctor	Wendy Myers F	DN CHHC				Test Date	9/2/2016
Patient Name	Ben Greenfield	Ben Greenfield		Sex		D.O.B.	12/20/1991
Clinical Information	n Al strikingly inc	Al strikingly increased (confirmed		i)		Page	1/2
	Acceptable Range	Test Value					
Essential Trace	Elements (mcg/kg)						
Copper	< 10,000.000	6,567.557				A	
Potentially Toxi	c Elements in mcg	/kg					
Antimony	< 80.000	7.273				A	_
Arsenic-total	< 300.000	237.673			-	A	
Beryllium	< 10.000	59.952	1		-		A
Bismuth	< 50.000	< 10.000			-		
Cadmium	< 50.000	138.791	1		-		A
Lead	< 50.000	85.270	1				<u> </u>
Mercury	< 40.000	< 20.000					
Nickel	< 1,000.000	2,999.617	1		_		A
Silver	< 10.000	< 10.000					
Tin	< 10.000	12.382	1		_		A
Uranium	< 120.000	35.825				A	

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

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MINERAL ANALYSIS		Stool	Stool						
Patient Name	Ben Greenfield	Lab Number	5St180204	Page	2/2				

Stool is a transport medium. The concentrations of essential and toxic elements found in stool are influenced by food intake and the digestive breakdown of food. A factor influencing the metal concentration of stool may be the frequency of elimination. 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.

The reference ranges listed represent a statistical reference range in the 95percentile. For more information, please contact us: service@tracemin.com or http://www.tracemin.com

BERYLLIUM (Be): Ingested Be is not considered highly toxic, because it is poorly absorbed through the gut. However, excessive uptake can cause severe rickets. Beryllium is stored in the liver and skeleton and known to replace magnesium. Beryllium overexposure affects liver function. Beryllosis, a fatal lung disease, has affected workers in the nuclear industry, especially plutonium processing. THERAPEUTIC RECOMMENDATION: avoid smoking. Increase antioxidant intake, with emphasis on vitamin A. Amino acids and fatty acids support liver function.

CADMIUM (Cd):

Cadmium is toxic to virtually every system of the body. It has been implicated in bronchial, lung and kidney disease, prostate and other cancers, high blood pressure, and anemias. It inhibits enzyme and nutrient utilization, and is readily stored in the kidney where it competes with zinc for binding sites in various enzymes and other proteins. Zinc, vitamin C, iron and/or calcium intake can partially protect against cadmium overload. Smoke increases the susceptible to toxicity, and tissue levels are known to increase with age.

SOURCE: Pollution, smoking.

THERAPEUTIC CONSIDERATION: Antioxidant therapy with emphasis on vitamin C, zinc and vitamin B6; increased amino acid intake. Water contamination is a recognized source of cadmium toxicity.

NICKEL (Ni):

Nickel is naturally found in a variety of foods, including algae products. Nickel-rich foods include chocolate, nuts, and beans. Nickel intake from the Danish diet is estimated as 150 microgram/person/day on average. Roots and vegetables, meal, grain and bread relatively supply the average diet with much nickel. Certain food items, e.g. cocoa and chocolate, soya beans, oatmeal, nuts and almonds, fresh and dried legumes, have very high nickel contents. Consumption of these items in larger amounts may increase the nickel intake to 900 micrograms/person/day or more and consequently raise the nickel content of stool. Nickel allergy may be the cause of chronic urticaria or angioedema, pruritus or atopic dermatitis and a nickel-reduced diet may improve conditions. A recent study found that a low nickel diet was effective in controlling nickel-allergy symptoms in 39.28% of the patients tested.

Nickel is also found in cigarette smoke, contributing to the overall nickel load.

Sources:

(1) Allergy Asthma Proc 1999 Jul-Aug;20(4):235-42

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(2) Toxicol Lett 1999 Sep 5;108(2-3):185-9

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National Institute of Occupational Health, Lersoe Parkalle 105, Copenhagen, Denmark.

(3) Z Lebensm Unters Forsch. 1984 Dec;179(6):427-31. Flyvholm MA, Nielsen GD, Andersen A.Nickel content of food and estimation of dietary intake.

LEAD (Pb):

Occupational and environmental exposure are the common causes of exposure. Lead reduces the body's ability to utilize calcium, magnesium, zinc, iron and other important nutrients. This heavy metal greatly affects health. It is a known cause of anemia, and children are easily affected by lead exposure.

TOXICITY SYMPTOMS: Include abdominal pain, anorexia, anxiety, constipation, fatigue, headaches, impaired coordination, indigestion, irritability, muscle pains, learning and neurological disorders, incl. tremors, severe anemias and immune deficiencies, learning disabilities, hyperactivity and violent behavior. SOURCES: Canned goods, lead paint, newsprint, tobacco smoke, air pollution, and contaminated water.

n.n. = not detected

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