



Elemental Analysis Hair

GENOVA
DIAGNOSTICS

63 Zillico Street
Asheville, NC 28801
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Order Number: H7050805

Completed: September 10, 2014

Received: September 05, 2014

Collected: August 25, 2014

DOB: May 31, 1990

Sex: M

MRN: 1232356178

Toxic Elements

Element	Reference Range	Reference Range in µg/g
Aluminum	1.3	<= 17.3
Antimony	0.008	<= 0.016
Arsenic	0.057	<= 0.080
Barium	0.11	<= 1.70
Bismuth	<dl	<= 0.178
Cadmium	0.004	<= 0.022
Gadolinium	<dl	<= 0.0005
Lead	0.155	<= 0.700
Mercury	2.82	<= 1.32
Nickel	0.04	<= 0.55
Rhodium	<dl	<= 0.0005
Rubidium	<dl	<= 0.040
Thallium	0.0005	<= 0.0004
Tin	0.016	<= 0.149
Uranium	0.0005	<= 0.0057

Ratios

	Inside Range	Outside Range	Reference Range
Ca/Mg	11		5-29
Ca/P	1		1-9

Nutrient Elements

Element	Reference Range	Reference Range in µg/g
Calcium	105	192-1,588
Chromium	0.05	0.01-1.58
Cobalt	0.008	0.001-0.129
Copper	9	8-136
Iron	6.4	5.2-24.4
Magnesium	10	11-122
Manganese	0.08	0.04-1.93
Molybdenum	0.03	0.01-1.24
Phosphorous	119	104-206
Selenium	0.62	0.58-1.13
Sodium	2	14-426
Strontium	0.29	0.01-4.40
Sulfur	44,804	41,781-60,894
Vanadium	<dl	0.003-0.108
Zinc	160	119-245

Reference Range

Lithium	<dl	<= 0.302
Potassium	<dl	<= 174

Toxic & Essential Elements; Hair

TOXIC METALS				PERCENTILE	
		RESULT µg/g	REFERENCE INTERVAL	68 th	95 th
Aluminum (Al)		2.6	< 7.0	=====	
Antimony (Sb)		0.040	< 0.066	=====	
Arsenic (As)		0.027	< 0.080	=====	
Barium (Ba)		0.15	< 1.0	=====	
Beryllium (Be)		< 0.01	< 0.020	=====	
Bismuth (Bi)		< 0.002	< 2.0	=====	
Cadmium (Cd)		< 0.009	< 0.065	=====	
Lead (Pb)		0.18	< 0.80	=====	
Mercury (Hg)		0.31	< 0.80	=====	
Platinum (Pt)		< 0.003	< 0.005	=====	
Thallium (Tl)		< 0.001	< 0.002	=====	
Thorium (Th)		< 0.001	< 0.002	=====	
Uranium (U)		0.004	< 0.060	=====	
Nickel (Ni)		0.06	< 0.20	=====	
Silver (Ag)		0.01	< 0.08	=====	
Tin (Sn)		0.03	< 0.30	=====	
Titanium (Ti)		0.41	< 0.60	=====	
Total Toxic Representation				=====	

ESSENTIAL AND OTHER ELEMENTS				PERCENTILE				
		RESULT µg/g	REFERENCE INTERVAL	2.5 th	16 th	50 th	84 th	97.5 th
Calcium (Ca)		137	200 - 750	=====	=====	=====	=====	=====
Magnesium (Mg)		14	25 - 75	=====	=====	=====	=====	=====
Sodium (Na)		2	20 - 180	=====	=====	=====	=====	=====
Potassium (K)		< 3	9 - 80	=====	=====	=====	=====	=====
Copper (Cu)		11	11 - 30	=====	=====	=====	=====	=====
Zinc (Zn)		210	130 - 200	=====	=====	=====	=====	=====
Manganese (Mn)		0.15	0.08 - 0.50	=====	=====	=====	=====	=====
Chromium (Cr)		0.35	0.40 - 0.70	=====	=====	=====	=====	=====
Vanadium (V)		0.020	0.018 - 0.065	=====	=====	=====	=====	=====
Molybdenum (Mo)		0.087	0.025 - 0.060	=====	=====	=====	=====	=====
Boron (B)		0.28	0.40 - 3.0	=====	=====	=====	=====	=====
Iodine (I)		0.34	0.25 - 1.8	=====	=====	=====	=====	=====
Lithium (Li)		< 0.004	0.007 - 0.020	=====	=====	=====	=====	=====
Phosphorus (P)		165	150 - 220	=====	=====	=====	=====	=====
Selenium (Se)		1.1	0.70 - 1.2	=====	=====	=====	=====	=====
Strontium (Sr)		0.18	0.30 - 3.5	=====	=====	=====	=====	=====
Sulfur (S)		48300	44000 - 50000	=====	=====	=====	=====	=====
Cobalt (Co)		0.015	0.004 - 0.020	=====	=====	=====	=====	=====
Iron (Fe)		14	7.0 - 16	=====	=====	=====	=====	=====
Germanium (Ge)		0.040	0.030 - 0.040	=====	=====	=====	=====	=====
Rubidium (Rb)		< 0.003	0.011 - 0.12	=====	=====	=====	=====	=====
Zirconium (Zr)		0.013	0.020 - 0.44	=====	=====	=====	=====	=====

SPECIMEN DATA		RATIOS		
COMMENTS:		ELEMENTS	RATIOS	RANGE
Date Collected: 09/11/2015		Ca/Mg	9.79	4 - 30
Date Received: 09/18/2015		Ca/P	0.83	0.8 - 8
Date Completed: 09/21/2015		Na/K	0.667	0.5 - 10
Methodology: ICP/MS		Zn/Cu	19.1	4 - 20
Sample Size: 0.201 g		Zn/Cd	> 999	> 800
Sample Type: Head				
Hair Color:				
Treatment:				
Shampoo:				



SEX: Male
AGE: 27

What is your main health concern?

279 Walkers Mills Rd
Bethel, ME 04217 U.S.A.

DEFER TO YOUR DOCTOR

Toxic & Essential Elements; Hair

TOXIC METALS					
I would run a CSA			RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 68 th 95 th
Aluminum	€ GPPP	(Al)	4.7	< 7.0	██████████ MTHF Liver Caps
Antimony	next	(Sb)	0.030	< 0.066	██████████ + ATP + Metal Away
Arsenic		(As)	0.078	< 0.080	██████████
Barium		(Ba)	0.18	< 1.0	██████████ All in One + Be calm
Beryllium		(Be)	< 0.01	< 0.020	+ Bio Naturus minerals
Bismuth		(Bi)	< 0.002	< 2.0	+ PS/PEPC + DHA
Cadmium		(Cd)	< 0.009	< 0.065	
Lead	Also run a water test	(Pb)	5.1	< 0.80	██████████ EDTA
Mercury	GSH + NADH	(Hg)	1.0	< 0.80	██████████ Soap +
Platinum		(Pt)	< 0.003	< 0.005	██████████ Metal Away
Thallium		(Tl)	< 0.001	< 0.002	+ Extra gaba as needed
Thorium		(Th)	0.001	< 0.002	██████████
Uranium		(U)	0.001	< 0.060	██████████
Nickel		(Ni)	0.05	< 0.20	██████████ ATP + Ribosylphos
Silver		(Ag)	0.01	< 0.08	██████████ + Mitoforce
Tin		(Sn)	0.12	< 0.30	██████████ + CoQ10 spray
Titanium		(Ti)	0.43	< 0.60	██████████
Total Toxic Representation					██████████

Inflammatory Pathway Caps
+ General Nuc. blend



SEA: Male
AGE: 27

Refer to
Your Doctor

275 Wainwright Mills Rd
Bethel, ME 04217 U.S.A.

ESSENTIAL AND OTHER ELEMENTS

+ ATP + Ribo 5 phos + Mitoforce + Co Q 10 spray		RESULT	REFERENCE	PERCENTILE				
		μg/g	INTERVAL	2.5 th	16 th	50 th	84 th	97.5 th
Calcium	(Ca)	103	200 - 750					
Magnesium	(Mg)	14	25 - 75					
Sodium	(Na)	2	20 - 180					
Potassium	(K)	3	9 - 80					
Copper	(Cu)	11	11 - 30					
Zinc	(Zn)	190	130 - 200					
Manganese	(Mn)	0.09	0.08 - 0.50					
Chromium	(Cr)	0.56	0.40 - 0.70					
Vanadium	(V)	0.019	0.018 - 0.065					
Molybdenum	(Mo)	0.11	0.025 - 0.060					
Boron	(B)	1.5	0.40 - 3.0					
Iodine	(I)	0.49	0.25 - 1.8					
Lithium	(Li)	< 0.004	0.007 - 0.020					
Phosphorus	(P)	168	150 - 220					
Selenium	(Se)	0.90	0.70 - 1.2					
Strontium	(Sr)	0.09	0.30 - 3.5					
Sulfur	(S)	49100	44000 - 50000					
Cobalt	(Co)	0.015	0.004 - 0.020					
Iron	(Fe)	8.0	7.0 - 16					
Germanium	(Ge)	0.032	0.030 - 0.040					
Rubidium	(Rb)	0.004	0.011 - 0.12					
Zirconium	(Zr)	0.065	0.020 - 0.44					

Work on above suggestions THEN rerun a HE
in 3-4 months to be sure lithium is in balance so
you can THEN add long route methylation



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AGE: 27

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Toxic & Essential Elements; Hair

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Barium (Ba)		0.18	< 1.0		
Beryllium (Be)		< 0.01	< 0.020		
Bismuth (Bi)		< 0.002	< 2.0		
Cadmium (Cd)		< 0.009	< 0.065		
Lead (Pb)		5.1	< 0.80		
Mercury (Hg)		1.0	< 0.80		
Platinum (Pt)		< 0.003	< 0.005		
Thallium (Tl)		< 0.001	< 0.002		
Thorium (Th)		0.001	< 0.002		
Uranium (U)		0.001	< 0.060		
Nickel (Ni)		0.05	< 0.20		
Silver (Ag)		0.01	< 0.08		
Tin (Sn)		0.12	< 0.30		
Titanium (Ti)		0.43	< 0.60		
Total Toxic Representation					

ESSENTIAL AND OTHER ELEMENTS				PERCENTILE				
		RESULT µg/g	REFERENCE INTERVAL	2.5 th	16 th	50 th	84 th	97.5 th
Calcium (Ca)		103	200– 750					
Magnesium (Mg)		14	25– 75					
Sodium (Na)		2	20– 180					
Potassium (K)		3	9– 80					
Copper (Cu)		11	11– 30					
Zinc (Zn)		190	130– 200					
Manganese (Mn)		0.09	0.08– 0.50					
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Sulfur (S)		49100	44000– 50000					
Cobalt (Co)		0.015	0.004– 0.020					
Iron (Fe)		8.0	7.0– 16					
Germanium (Ge)		0.032	0.030– 0.040					
Rubidium (Rb)		0.004	0.011– 0.12					
Zirconium (Zr)		0.065	0.020– 0.44					

SPECIMEN DATA		RATIOS		
COMMENTS:		ELEMENTS	RATIOS	RANGE
Date Collected: 09/04/2017		Ca/Mg	7.36	4– 30
Date Received: 09/25/2017		Ca/P	0.613	0.8– 8
Date Completed: 09/27/2017		Na/K	0.667	0.5– 10
Methodology: ICP/MS		Zn/Cu	17.3	4– 20
Sample Size: 0.203 g		Zn/Cd	> 999	> 800
Sample Type: Head				
Hair Color: Red				
Treatment:				
Shampoo:				

Health history for follow-up hair test 1010B

Ongoing Symptoms include fatigue, headache, brainfog, incomplete stools, drunken vision, sensitive hearing, rashes (possible dermatitis on hands), occasional speech difficulty (trying to say two words at once or just mixed up) and uncoordinated. Exercise tolerance increased with adrenal support, and muscle and joint pains are now only mild. Mood is usually stable, have a lot of bouts of self doubt but also indifference.

Current supplements taken on and before the testing:

- Vitamin C 4mg daily or 12 if chelating (will increase this to 12mg daily everyday)
- Vitamin E 1200iu
- magnesium citrate 1000mg over three doses
- Calcium 1000mg over 3 doses
- Molybdenum 1200mcg over four doses
- Zinc 33mg over three doses
- Silymarin (600mg Milk thistle, Dandelion Root 200mg, Artichoke 100mg) over 2 doses
- Vitamin D 5000iu
- Selenium 300mcg over 3 doses
- Adrenal cortex extract 300mg with breakfast
- Pregnenolone 200mg with breakfast

Been going through what i suspect to be the "stall phase " for 2 or 3 months so i have been forced to take lower chelater doses (previously i was cruising with ALA at 25mg every 2 hours).

Currently on ALA 1mg every 2hours.

DMPS/DMSA 1-2mg every 6 or 2 hours.

I will perhaps half the ALA dose as i still get effects from these doses.

Mostly wish to improve energy and recovery but my biggest thing to improve would be mind clarity and the ability to think and act without brain fog and indecisive sluggish thoughts.

I currently live in Geelong, relatively big town in Australia.

Health history for hair test 1010

1. Symptoms include fatigue, headache, brainfog, migrating muscle and joint pain, IBS, drunken vision, sensitive hearing, rashes and scratch like marks over body, occasional speech difficulty and uncoordinated. Symptoms ongoing since August 2011. Have had rashes and uncomfortable burning face at night since teenager.
2. Had one big filling when a kid in baby teeth, not sure if amalgam or porcelain.
3. Undergoing no dental work.
4. Mother had 4+ large Amalgams at the time of my birth.
5. Never had vaccinations
6. Supplements taken at the time of testing were: Milk Thistle, Vitamin C, Vitamin D, Magnesium, Eleuthero, L-Carnitine, CoQ10 and fish oil (all at recommended doses).
7. I live in Australia Anglesea, roughly 1km away from the Anglesea Alcoa power station. The power station is very outdated and the dust from the smoke stack (which settles in the town) has been tested and shown the following elements present: Antimony, Beryllium, Cadmium, Lead, Mercury, Nickel, Silver, Thallium, Thorium, Tungsten and Uranium.
I have been a lawn mower/gardener for 5 years and was constantly exposed to large amounts of dust in the air.