

Toxic & Essential Elements; Hair

		RESULT µg/g	REFERENCE INTERVAL	PERCENTILE
				68 th 95 th
Aluminum	(Al)	6.1	< 12	
Antimony	(Sb)	0.024	< 0.080	
Arsenic	(As)	0.088	< 0.12	
Barium	(Ba)	0.39	< 1.5	
Beryllium	(Be)	< 0.01	< 0.020	
Bismuth	(Bi)	0.030	< 2.0	
Cadmium	(Cd)	0.012	< 0.065	
Lead	(Pb)	0.38	< 1.5	
Mercury	(Hg)	0.08	< 0.80	
Platinum	(Pt)	< 0.003	< 0.005	
Thallium	(Tl)	< 0.001	< 0.002	
Thorium	(Th)	< 0.001	< 0.002	
Uranium	(U)	0.002	< 0.060	
Nickel	(Ni)	0.06	< 0.40	
Silver	(Ag)	0.02	< 0.10	
Tin	(Sn)	0.10	< 0.30	
Titanium	(Ti)	0.29	< 0.70	

Total Toxic Representation

		RESULT µg/g	REFERENCE INTERVAL	PERCENTILE
				2.5 th 16 th 50 th 84 th 97.5 th
Calcium	(Ca)	776	375- 1100	
Magnesium	(Mg)	180	40- 140	
Sodium	(Na)	57	60- 400	
Potassium	(K)	42	28- 160	
Copper	(Cu)	68	11- 32	
Zinc	(Zn)	310	120- 200	
Manganese	(Mn)	0.16	0.15- 0.65	
Chromium	(Cr)	0.38	0.40- 0.70	
Vanadium	(V)	0.010	0.018- 0.065	
Molybdenum	(Mo)	0.042	0.040- 0.080	
Boron	(B)	0.94	0.40- 2.5	
Iodine	(I)	0.29	0.25- 1.8	
Lithium	(Li)	< 0.004	0.008- 0.030	
Phosphorus	(P)	231	200- 300	
Selenium	(Se)	1.1	0.80- 1.3	
Strontium	(Sr)	0.87	1.0- 6.0	
Sulfur	(S)	46300	41000- 47000	
Cobalt	(Co)	0.005	0.006- 0.035	
Iron	(Fe)	6.7	7.0- 16	
Germanium	(Ge)	0.028	0.030- 0.040	
Rubidium	(Rb)	0.044	0.030- 0.25	
Zirconium	(Zr)	0.058	0.040- 1.0	

SPECIMEN DATA		RATIOS		
COMMENTS:		ELEMENTS	RATIOS	RANGE
Date Collected: 01/19/2013	Sample Size: 0.201 g	Ca/Mg	4.31	4 - 30
Date Received: 01/25/2013	Sample Type: Pubic	Ca/P	3.36	0.8 - 8
Date Completed: 01/28/2013	Hair Color: Brown	Na/K	1.36	0.5 - 10
Methodology: ICP/MS	Treatment: Shampoo:	Zn/Cu	4.56	4 - 20
		Zn/Cd	> 999	> 800



SEX: Male
AGE: 27

Toxic & Essential Elements; Hair

TOXIC METALS				Picasa			
	RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 68 th	95 th			
Aluminum (Al)	0.9	< 7.0	-	-			
Antimony (Sb)	< 0.01	< 0.066	-	-			
Arsenic (As)	0.078	< 0.080	-	-			
Barium (Ba)	0.13	< 1.0	-	-			
Beryllium (Be)	< 0.01	< 0.020	-	-			
Bismuth (Bi)	0.046	< 2.0	-	-			
Cadmium (Cd)	< 0.009	< 0.065	-	-			
Lead (Pb)	0.06	< 0.80	-	-			
Mercury (Hg)	0.08	< 0.80	-	-			
Platinum (Pt)	< 0.003	< 0.005	-	-			
Thallium (Tl)	< 0.001	< 0.002	-	-			
Thorium (Th)	< 0.001	< 0.002	-	-			
Uranium (U)	0.002	< 0.060	-	-			
Nickel (Ni)	0.01	< 0.20	-	-			
Silver (Ag)	0.01	< 0.08	-	-			
Tin (Sn)	0.09	< 0.30	-	-			
Titanium (Ti)	0.18	< 0.60	-	-			
Total Toxic Representation							
ESSENTIAL AND OTHER ELEMENTS							
	RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 2.5 th	16 th	50 th	84 th	97.5 th
Calcium (Ca)	273	200 - 750	-	-	-	-	-
Magnesium (Mg)	56	25 - 75	-	-	-	-	-
Sodium (Na)	41	20 - 180	-	-	-	-	-
Potassium (K)	5	9 - 80	-	-	-	-	-
Copper (Cu)	11	11 - 30	-	-	-	-	-
Zinc (Zn)	220	130 - 200	-	-	-	-	-
Manganese (Mn)	0.08	0.08 - 0.50	-	-	-	-	-
Chromium All in one (Cr)	0.33	0.40 - 0.70	-	-	-	-	-
Vanadium (V)	0.018	0.018 - 0.065	-	-	-	-	-
Molybdenum (Mo)	0.029	0.025 - 0.060	-	-	-	-	-
Boron (B)	0.71	0.40 - 3.0	-	-	-	-	-
Iodine (I)	1.8	0.25 - 1.8	-	-	-	-	-
Lithium (Li)	< 0.004	0.007 - 0.020	-	-	-	-	-
Phosphorus (P)	169	150 - 220	-	-	-	-	-
Selenium (Se)	0.77	0.70 - 1.2	-	-	-	-	-
Strontium (Sr)	0.37	0.30 - 3.5	-	-	-	-	-
Sulfur (S)	48400	44000 - 50000	-	-	-	-	-
Cobalt (Co)	0.003	0.004 - 0.020	-	-	-	-	-
Iron (Fe)	4.4	7.0 - 16	-	-	-	-	-
Germanium (Ge)	0.032	0.030 - 0.040	-	-	-	-	-
Rubidium (Rb)	0.009	0.011 - 0.12	-	-	-	-	-
Zirconium (Zr)	0.028	0.020 - 0.44	-	-	-	-	-
SPECIMEN DATA					RATIOS		
COMMENTS:					ELEMENTS	RATIOS	RANGE
Date Collected: 06/20/2013	Sample Size: 0.199 g				Ca/Mg	4.88	4 - 30
Date Received: 06/24/2013	Sample Type: Head				Ca/P	1.62	0.8 - 8
Date Completed: 06/25/2013	Hair Color: Brown				Na/K	8.2	0.5 - 10
Methodology: ICP/MS	Treatment:				Zn/Cu	20	4 - 20
	Shampoo: Tea Tree Oil				Zn/Cd	> 999	> 800



SEX: Male
AGE: 27

Toxic & Essential Elements; Packed Red Blood Cells

ESSENTIAL AND OTHER ELEMENTS									
		RESULT / UNIT	REFERENCE INTERVAL		2.5 th	16 th	50 th	PERCENTILE	
			8 -	25				84 th	97.5 th
Calcium	(Ca)	10	µg/g	8 - 25			■		
Magnesium	(Mg)	48	µg/g	39 - 59			■		
Potassium	(K)	80	mEq/L	70 - 90			•		
Phosphorus	(P)	584	µg/g	510 - 700			■		
Copper	(Cu)	0.70	µg/g	0.52 - 0.80			■		
Zinc	(Zn)	11.4	µg/g	8.6 - 14.5			■		
Iron	(Fe)	954	µg/g	800 - 1020			■		
Manganese	(Mn)	0.014	µg/g	0.008 - 0.029			■		
Chromium	(Cr)	0.0004	µg/g	0.0003-0.0020			■		
Selenium	(Se)	0.18	µg/g	0.19 - 0.50			■		
Boron	(B)	0.049	µg/g	0.01 - 0.110			■		
Vanadium	(V)	0.0001	µg/g	0.0001-0.0005			■		
Molybdenum	(Mo)	0.0009	µg/g	0.0006-0.0020			■		

TOXIC METALS								
		RESULT / UNIT	REFERENCE INTERVAL		95 th	99 th	PERCENTILE	
Arsenic	(As)	0.005	µg/g	< 0.010	■			
Cadmium	(Cd)	0.001	µg/g	< 0.002	■			
Lead	(Pb)	0.011	µg/g	< 0.060	■			
Mercury	(Hg)	0.001	µg/g	< 0.010	•			
Thallium	(Tl)	< 0.0001	µg/g	< 0.0005				

SPECIMEN DATA

Comments:	
Date Collected:	06/25/2013
Date Received:	06/27/2013
Date Completed:	06/30/2013

Methodology: ICP-MS

v8.10

Toxic & Essential Elements; Hair

TOXIC METALS			
	RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 68 th 95 th
Aluminum (Al)	2.1	< 7.0	■
Antimony (Sb)	0.020	< 0.066	■
Arsenic (As)	0.044	< 0.080	■
Barium (Ba)	0.19	< 1.0	■
Beryllium (Be)	< 0.01	< 0.020	
Bismuth (Bi)	0.020	< 2.0	●
Cadmium (Cd)	< 0.009	< 0.065	
Lead (Pb)	0.17	< 0.80	■
Mercury (Hg)	< 0.03	< 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)	0.03	< 0.20	■
Silver (Ag)	0.01	< 0.08	●
Tin (Sn)	0.06	< 0.30	■
Titanium (Ti)	0.38	< 0.60	■
Total Toxic Representation			

ESSENTIAL AND OTHER ELEMENTS			
	RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 2.5 th 16 th 50 th 84 th 97.5 th
Calcium (Ca)	417	200 - 750	■
Magnesium (Mg)	61	25 - 75	■
Sodium (Na)	30	20 - 180	■
Potassium (K)	12	9 - 80	■
Copper (Cu)	14	11 - 30	■
Zinc (Zn)	280	130 - 200	■
Manganese (Mn)	0.06	0.08 - 0.50	■
Chromium (Cr)	0.28	0.40 - 0.70	■
Vanadium (V)	0.018	0.018 - 0.065	■
Molybdenum (Mo)	0.028	0.025 - 0.060	■
Boron (B)	0.91	0.40 - 3.0	■
Iodine (I)	1.5	0.25 - 1.8	■
Lithium (Li)	0.012	0.007 - 0.020	■
Phosphorus (P)	171	150 - 220	■
Selenium (Se)	0.92	0.70 - 1.2	■
Strontium (Sr)	0.58	0.30 - 3.5	■
Sulfur (S)	47700	44000 - 50000	■
Cobalt (Co)	0.003	0.004 - 0.020	■
Iron (Fe)	6.7	7.0 - 16	■
Germanium (Ge)	0.019	0.030 - 0.040	■
Rubidium (Rb)	0.014	0.011 - 0.12	■
Zirconium (Zr)	0.043	0.020 - 0.44	■

SPECIMEN DATA		RATIOS	
COMMENTS:		ELEMENTS	RATIOS
Date Collected: 07/27/2014	Sample Size: 0.201 g	Ca/Mg	6.84
Date Received: 08/01/2014	Sample Type: Head	Ca/P	2.44
Date Completed: 08/03/2014	Hair Color: Brown	Na/K	2.5
Methodology: ICP/MS	Treatment:	Zn/Cu	20
	Shampoo: Trader Joes	Zn/Cd	> 999

Hair Test 722 5 month Update (7/1/2013)

All my symptoms are pretty much still the same including bad systemic candidiasis that does not respond to natural antifungals.

Improvements - Increased sense of smell, taste and hearing and weight gain (I believe this was the zinc)

New symptoms (since introducing zinc for high copper) - Extreme fatigue, leg pain, migraines, lower jaw tremors, short term memory problems, and brain fog

Copper was definitely a problem for me and I think I resolved most of it because I no longer get bad copper dumps as I did when I first started zinc.

Supplements (x2 Morning and Evening)

- Vitamin A (palmitate) 5,000 IU
- D-3 (cholecaciferol) 200IU
- Vitamin C (ascorbic acid) 1,000mg
- Vitamin E (d-alpha tocopheryl acetate) 200 IU
- B-5 Pantothenic Acid 250mg
- Biotin 5mg
- Zinc gluconate 6.25 mg
- Molybdenum 250mcg
- Magnesium Citrate 225mg
- Flax Oil 1.5g

I have not started chelation yet. I plan to start with 5mg of DMSA within the next few weeks. I also plan on requesting DMPS from my doctor at my next appointment in 3 weeks.

1) What are your current symptoms and health history?

All my problems started shortly after taking a few courses of antibiotics for a recurrent ear infection. This included:

- Chronic Candidasis
- Chronic clogged ears
- Itching peeling ear canals
- Tinnitus
- Red flushed face, esp after eating
- Hot flashes, esp after eating
- Constant chills, esp after eating (cold then hot)
- Chronic itchy scalp and dandruff
- Chronic sore throat
- Intolerance to colder temperature (cold all the time)
- Oral thrush
- Tonsil stones
- White coated tongue
- Bad breath
- Dry Mouth (esp at night)
- Body Odor
- Recessed gum line and sensitive gums
- Acne
- Jock Itch
- Athlete's foot
- Toenail fungus
- Rectal itch
- Anal fissures
- Mucus in urine and stools
- Itchy/peeling skin patches (knees and armpits)
- Dry Skin (mostly face)
- Gallbladder pain (sludge or gravel)
- Bloating
- Chronic anxiety
- Anxiety attacks
- Depression
- Bouts of anger
- Inability to concentrate
- Chronic Fatigue
- Hangover feeling in the morning without alcohol use
- Eye floaters
- Sensitivity to light (esp fluorescent and LCD computer monitors)
- Shaky Vision
- Obsessive Compulsive Disorder

2) Dental history

I have never had amalgam fillings. I had some composite baby fillings and only one small composite filling in my adult teeth. I never had braces and still have my wisdom teeth. No root canals.

3) What dental work do you currently have in place? What part of the dental cleanup have you completed?

1 small composite filling

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

My mother has about 10 amalgam fillings that she had since she was young

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

DTP Vaccine	10/9/1990, 9/22/1986, 2/21/1986, 12/20/1985, 10/18/1985
Hepatitis B, 0-19 yrs	3/13/2001, 10/18/2000, 9/7/2000
MMR-VAR:Measles/Mumps/Rubella/Varicella	3/25/1987
MMR: Measles/Mumps/Rubella Vaccine	9/7/2000
OPV: Polio Virus Vaccine (Oral)	10/9/1990
TD:Tetanus/Diphtheria (ADULT)	9/7/2000
TDAP (age 11 and older)(Adacel)	5/17/2012

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

- Daily Multivitamin (contained Copper, Zinc, Molybdenum and Iodine)
- Vitamin C 3g
- SF722 (For Candida) 250mg x 3

7) Other information you feel may be relevant?

I was recently given a natural Heavy Metal cleanse by my naturopath which was Premiere Research HM Detox Caps which I had a severe psychotic reaction with just 6 small doses that I stopped immediately.

My post about this incident can be found here

<http://health.groups.yahoo.com/group/frequent-dose-chelation/message/100386>

I also suspect whatever metal that is in my system is concentrated in my liver/gallbladder causing congestion. Everytime I feel something pass in my bile ducts I get a severe anxiety/depression reaction.

8) What is your location

Central Pennsylvania