

Toxic & Essential Elements; Hair

TOXIC METALS				
	RESULT µg/g	REFERENCE INTERVAL	PERCENTILE	
			68 th	95 th
Aluminum (Al)	2.4	< 7.0		
Antimony (Sb)	< 0.01	< 0.050		
Arsenic (As)	0.030	< 0.060		
Barium (Ba)	0.25	< 2.0		
Beryllium (Be)	< 0.01	< 0.020		
Bismuth (Bi)	< 0.002	< 2.0		
Cadmium (Cd)	< 0.009	< 0.050		
Lead (Pb)	0.09	< 0.60		
Mercury (Hg)	0.94	< 0.80		
Platinum (Pt)	< 0.003	< 0.005		
Thallium (Tl)	< 0.001	< 0.002		
Thorium (Th)	< 0.001	< 0.002		
Uranium (U)	0.034	< 0.060		
Nickel (Ni)	0.04	< 0.30		
Silver (Ag)	0.03	< 0.15		
Tin (Sn)	0.02	< 0.30		
Titanium (Ti)	0.24	< 0.70		
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)	224	300- 1200					
Magnesium (Mg)	16	35- 120					
Sodium (Na)	11	20- 250					
Potassium (K)	8	8- 75					
Copper (Cu)	14	11- 37					
Zinc (Zn)	160	140- 220					
Manganese (Mn)	0.11	0.08- 0.60					
Chromium (Cr)	0.30	0.40- 0.65					
Vanadium (V)	0.031	0.018- 0.065					
Molybdenum (Mo)	0.072	0.020- 0.050					
Boron (B)	0.31	0.25- 1.5					
Iodine (I)	0.66	0.25- 1.8					
Lithium (Li)	0.004	0.007- 0.020					
Phosphorus (P)	123	150- 220					
Selenium (Se)	1.1	0.55- 1.1					
Strontium (Sr)	0.88	0.50- 7.6					
Sulfur (S)	43800	44000- 50000					
Cobalt (Co)	0.004	0.005- 0.040					
Iron (Fe)	6.5	7.0- 16					
Germanium (Ge)	0.029	0.030- 0.040					
Rubidium (Rb)	0.009	0.007- 0.096					
Zirconium (Zr)	0.009	0.020- 0.42					

SPECIMEN DATA		RATIOS		
COMMENTS:		ELEMENTS	RATIOS	RANGE
Date Collected: 09/29/2014		Ca/Mg	14	4- 30
Date Received: 10/15/2014		Ca/P	1.82	1- 12
Date Completed: 10/17/2014		Na/K	1.38	0.5- 10
Methodology: ICP/MS		Zn/Cu	11.4	4- 20
Sample Size: 0.197 g		Zn/Cd	> 999	> 800
Sample Type: Head				
Hair Color:				
Treatment:				
Shampoo:				

What are your current symptoms and health history?

**Hashimoto's, candida, hormone issues, occasional joint pain in fingers, lower back pain (haven't figured out source and have seen a few PTs about it), depression/irritability, foggy brain, extreme disorganization, list goes on and on

Dental history (Wisdom teeth removed and when? Any other extractions. First root canal placed?

**Had quite a few amalgams that were given as a child. Those have all been replaced (the last two were replaced last year - not by a biological dentist unfortunately). First root canal was in 1998 (metal in crown - gold?)

Braces? First amalgam etc...)

Braces 12-13 years old; suspect first amalgam when 6 or 7 years old

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

**Currently have a root canal and crown as well as quite a few composite fillings.

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

**Not sure but she had amalgams too

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

**Tetanus booster 2007, vaccinations standard when child and some had to retake at age 18 to enter college because some given as a baby were done 1 day before my birthday so state didn't accept them for attending school.

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

Selenium 400 mg/day
NAC 200 mg/day (3-6 mos prior)
fermented cod liver oil (tsp every few days)
Cod liver oil (tsp every few days)
5MFTH - 5mg/day
Zinc - 50 mg/day
T3/T4 compounded for thyroid daily
progesterone (100-200 mg day 3-6 mos prior to test)
Vitamin C occasionally

What is your age, height and weight?

**age 42, 5' 6", 143 lbs

Other information you feel may be relevant?

Worked in a dry cleaners in late 1980s where unsafe practices were used (open drums of PERC) which I always attributed to thyroid problems as adult.

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

Lakewood, CO USA