

Toxic & Essential Elements; Hair

TOXIC METALS				
		RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 68 th 95 th
Aluminum	(Al)	11	< 7.0	
Antimony	(Sb)	0.035	< 0.066	
Arsenic	(As)	0.078	< 0.080	
Barium	(Ba)	0.39	< 1.0	
Beryllium	(Be)	< 0.01	< 0.020	
Bismuth	(Bi)	0.16	< 2.0	
Cadmium	(Cd)	0.021	< 0.065	
Lead	(Pb)	0.84	< 0.80	
Mercury	(Hg)	0.13	< 0.80	
Platinum	(Pt)	< 0.003	< 0.005	
Thallium	(Tl)	< 0.001	< 0.002	
Thorium	(Th)	< 0.001	< 0.002	
Uranium	(U)	0.43	< 0.060	
Nickel	(Ni)	0.12	< 0.20	
Silver	(Ag)	0.02	< 0.08	
Tin	(Sn)	0.19	< 0.30	
Titanium	(Ti)	0.24	< 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)	333	200- 750	
Magnesium	(Mg)	32	25- 75	
Sodium	(Na)	53	20- 180	
Potassium	(K)	98	9- 80	
Copper	(Cu)	32	11- 30	
Zinc	(Zn)	100	130- 200	
Manganese	(Mn)	0.11	0.08- 0.50	
Chromium	(Cr)	0.38	0.40- 0.70	
Vanadium	(V)	0.042	0.018- 0.065	
Molybdenum	(Mo)	0.066	0.025- 0.060	
Boron	(B)	1.1	0.40- 3.0	
Iodine	(I)	0.96	0.25- 1.8	
Lithium	(Li)	0.20	0.007- 0.020	
Phosphorus	(P)	131	150- 220	
Selenium	(Se)	0.55	0.70- 1.2	
Strontium	(Sr)	1.3	0.30- 3.5	
Sulfur	(S)	50200	44000- 50000	
Cobalt	(Co)	0.005	0.004- 0.020	
Iron	(Fe)	5.8	7.0- 16	
Germanium	(Ge)	0.033	0.030- 0.040	
Rubidium	(Rb)	0.16	0.011- 0.12	
Zirconium	(Zr)	0.029	0.020- 0.44	

SPECIMEN DATA		RATIOS		
COMMENTS:		ELEMENTS	RATIOS	RANGE
Date Collected: 08/14/2013		Ca/Mg	10.4	4- 30
Date Received: 08/20/2013		Ca/P	2.54	0.8- 8
Date Completed: 08/22/2013		Na/K	0.541	0.5- 10
Methodology: ICP/MS		Zn/Cu	3.13	4- 20
Sample Size: 0.196 g		Zn/Cd	> 999	> 800
Sample Type: Head				
Hair Color: Brown				
Treatment:				
Shampoo: Avalon				

Health history for hair test 849

1. fatigue, widespread muscle pain, brain fog, irritability, bipolar II, OCD, depression
2. Wisdom teeth removed in late teens. Several amalgam fillings; two of them were removed and replaced several years ago by a non-mercury-safe dentist (no precautions were taken). Braces in early teens.
3. No recent dental work. I consulted a mercury-safe dentist about possibly removing the remaining two fillings.
4. Do not know.
5. Most vaccinations were as a child. A couple of flu shots in recent years.
6. Neurontin, 4000 mg/day. Risperdal 2 mg/day. Lamictal 200 mg/day. Cymbalta 30 mg/day. Sonata 10 mg/day. Lithium orotate about 30 mg/day for a short time before the test. Magnesium 400 mg/day. Vitamin C 4000 mg/day.
7. age 44. height 5' 10". 215 pounds.
8. I do get hair permanents every six months. The hair used in this analysis was grown out long after my last permanent.
9. Los Angeles, USA