

Toxic & Essential Elements; Hair

TOXIC METALS			
	RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 68 th 95 th
Aluminum (Al)	3.9	< 8.0	
Antimony (Sb)	< 0.01	< 0.066	
Arsenic (As)	0.034	< 0.080	
Barium (Ba)	0.06	< 0.75	
Beryllium (Be)	< 0.01	< 0.020	
Bismuth (Bi)	0.002	< 2.0	
Cadmium (Cd)	< 0.009	< 0.060	
Lead (Pb)	0.06	< 1.0	
Mercury (Hg)	0.16	< 0.40	
Platinum (Pt)	< 0.003	< 0.005	
Thallium (Tl)	< 0.001	< 0.002	
Thorium (Th)	< 0.001	< 0.002	
Uranium (U)	0.003	< 0.060	
Nickel (Ni)	0.03	< 0.20	
Silver (Ag)	0.03	< 0.10	
Tin (Sn)	0.05	< 0.30	
Titanium (Ti)	0.26	< 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)	189	200- 700	
Magnesium (Mg)	25	18- 70	
Sodium (Na)	13	20- 200	
Potassium (K)	4	9- 80	
Copper (Cu)	9.3	11- 32	
Zinc (Zn)	180	150- 230	
Manganese (Mn)	0.05	0.08- 0.50	
Chromium (Cr)	0.40	0.40- 0.70	
Vanadium (V)	0.033	0.020- 0.075	
Molybdenum (Mo)	0.038	0.030- 0.060	
Boron (B)	1.6	0.34- 3.0	
Iodine (I)	0.20	0.25- 1.3	
Lithium (Li)	< 0.004	0.007- 0.020	
Phosphorus (P)	156	150- 220	
Selenium (Se)	0.87	0.70- 1.2	
Strontium (Sr)	0.16	0.30- 3.2	
Sulfur (S)	48400	44000- 50000	
Cobalt (Co)	0.028	0.004- 0.020	
Iron (Fe)	4.4	7.0- 16	
Germanium (Ge)	0.022	0.030- 0.040	
Rubidium (Rb)	< 0.003	0.009- 0.090	
Zirconium (Zr)	0.067	0.047- 0.70	

SPECIMEN DATA		RATIOS		
COMMENTS:		ELEMENTS	RATIOS	RANGE
Date Collected: 03/10/2013	Sample Size: 0.203 g	Ca/Mg	7.56	4- 30
Date Received: 03/15/2013	Sample Type: Head	Ca/P	1.21	0.8- 8
Date Completed: 03/18/2013	Hair Color:	Na/K	3.25	0.5- 10
Methodology: ICP/MS	Treatment:	Zn/Cu	19.4	4- 20
	Shampoo:	Zn/Cd	> 999	> 800

Health history for hair test 753

16 years old

118 pounds

no amalgams ever

no vaccinations since he was 3 or 4 years old

no flu shots or shots of any kind

no medications

present supplements: omegas, vit c, multi vitamin, D3, calcium

looks like he needs Lithium from the hair test...

I am planning on giving him milk thistle to support his liver...

are there other supps I should be including?