

Toxic & Essential Elements; Hair

TOXIC METALS					
		RESULT µg/g	REFERENCE INTERVAL	PERCENTILE	
				68 th	95 th
Aluminum (Al)		4.8	< 7.0		
Antimony (Sb)		0.053	< 0.066		
Arsenic (As)		0.093	< 0.080		
Barium (Ba)		0.20	< 1.0		
Beryllium (Be)		0.013	< 0.020		
Bismuth (Bi)		0.021	< 2.0		
Cadmium (Cd)		0.028	< 0.065		
Lead (Pb)		0.40	< 0.80		
Mercury (Hg)		0.18	< 0.80		
Platinum (Pt)		< 0.003	< 0.005		
Thallium (Tl)		< 0.001	< 0.002		
Thorium (Th)		< 0.001	< 0.002		
Uranium (U)		0.026	< 0.060		
Nickel (Ni)		0.09	< 0.20		
Silver (Ag)		0.01	< 0.08		
Tin (Sn)		0.19	< 0.30		
Titanium (Ti)		0.41	< 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)		289	200- 750				
Magnesium (Mg)		25	25- 75				
Sodium (Na)		430	20- 180				
Potassium (K)		280	9- 80				
Copper (Cu)		13	11- 30				
Zinc (Zn)		180	130- 200				
Manganese (Mn)		0.07	0.08- 0.50				
Chromium (Cr)		0.58	0.40- 0.70				
Vanadium (V)		0.096	0.018- 0.065				
Molybdenum (Mo)		0.061	0.025- 0.060				
Boron (B)		2.9	0.40- 3.0				
Iodine (I)		0.39	0.25- 1.8				
Lithium (Li)		0.024	0.007- 0.020				
Phosphorus (P)		166	150- 220				
Selenium (Se)		1.3	0.70- 1.2				
Strontium (Sr)		0.53	0.30- 3.5				
Sulfur (S)		48400	44000- 50000				
Cobalt (Co)		0.004	0.004- 0.020				
Iron (Fe)		9.3	7.0- 16				
Germanium (Ge)		0.032	0.030- 0.040				
Rubidium (Rb)		0.18	0.011- 0.12				
Zirconium (Zr)		0.073	0.020- 0.44				

SPECIMEN DATA		RATIOS		
COMMENTS:		ELEMENTS	RATIOS	RANGE
Date Collected: 8/21/2011		Ca/Mg	11.6	4- 30
Date Received: 8/25/2011		Ca/P	1.74	0.8- 8
Date Completed: 8/27/2011		Na/K	1.54	0.5- 10
Methodology: ICP/MS		Zn/Cu	13.8	4- 20
Sample Size: 0.198 g		Zn/Cd	> 999	> 800
Sample Type: Head				
Hair Color: Brown				
Treatment:				
Shampoo: Head Shoulders				

Health history for hair test 546

- 1) Headaches , food allergy, vitamin sensitivity, acne on body.
- 2)
 - a) 7 amalgams placed summer of 1997
 - b) 4 teeth pulled, wisdom teeth removed, and braces installed summer of 1998
 - c) 3/2005 remaining 6 amalgams replaced with composite fillings
- 3) 6 composite fillings; "Esthet-x flow liquid micro hybrid restorative".....contains; " >60% Barium boron fluoroalumino silicate glass"
.....
and "3m Espe Adper single bond plus"
- 4) not sure
- 5) Decavac; 1/2007
polio; 2/1983, 4/1983, 7/1983, 6/1984, 8/1988
DTP; 2/1983, 4/1983, 7/1983, 6/1984, 8/1988
Measles, Rubella, Mumps; 3/1984
HiB; 1/1987
Tuberculin Test; 12/1984, 1/1987
- 6) 500mg Calcium EDTA taken 1 time daily for 3 days 1-2 weeks prior hair test collection date
- 7) 28, 5'10" , 145lbs
- 8) none
- 9) Mesa, Arizona