



PATIENT: Number 939  
 SEX: Female  
 AGE: 66

**Toxic & Essential Elements; Hair**

TOXIC METALS			
	RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 68 <sup>th</sup> 95 <sup>th</sup>
Aluminum (Al)	1.3	< 12	
Antimony (Sb)	< 0.01	< 0.060	
Arsenic (As)	0.090	< 0.090	
Barium (Ba)	1.2	< 2.0	
Beryllium (Be)	< 0.01	< 0.020	
Bismuth (Bi)	0.027	< 2.0	
Cadmium (Cd)	< 0.009	< 0.050	
Lead (Pb)	0.07	< 1.0	
Mercury (Hg)	0.25	< 0.80	
Platinum (Pt)	< 0.003	< 0.005	
Thallium (Tl)	< 0.001	< 0.002	
Thorium (Th)	< 0.001	< 0.002	
Uranium (U)	0.16	< 0.060	
Nickel (Ni)	0.04	< 0.40	
Silver (Ag)	0.01	< 0.10	
Tin (Sn)	0.03	< 0.30	
Titanium (Ti)	0.39	< 1.3	
Total Toxic Representation			

ESSENTIAL AND OTHER ELEMENTS			
	RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 2.5 <sup>th</sup> 16 <sup>th</sup> 50 <sup>th</sup> 84 <sup>th</sup> 97.5 <sup>th</sup>
Calcium (Ca)	732	475- 1500	
Magnesium (Mg)	140	45- 180	
Sodium (Na)	78	80- 450	
Potassium (K)	10	28- 160	
Copper (Cu)	11	11- 30	
Zinc (Zn)	160	130- 200	
Manganese (Mn)	0.14	0.15- 0.65	
Chromium (Cr)	0.30	0.40- 0.65	
Vanadium (V)	0.027	0.018- 0.065	
Molybdenum (Mo)	0.071	0.040- 0.10	
Boron (B)	0.99	0.40- 4.0	
Iodine (I)	2.6	0.25- 1.8	
Lithium (Li)	< 0.004	0.008- 0.030	
Phosphorus (P)	218	250- 500	
Selenium (Se)	0.74	0.80- 1.3	
Strontium (Sr)	3.8	1.0- 8.0	
Sulfur (S)	45400	42000- 48000	
Cobalt (Co)	0.008	0.006- 0.035	
Iron (Fe)	6.5	7.0- 16	
Germanium (Ge)	0.029	0.030- 0.040	
Rubidium (Rb)	0.011	0.030- 0.25	
Zirconium (Zr)	0.020	0.040- 1.0	

SPECIMEN DATA		RATIOS	
<b>COMMENTS:</b>		ELEMENTS	RATIOS
Date Collected: 01/25/2014	Sample Size: 0.2 g	Ca/Mg	5.23
Date Received: 01/30/2014	Sample Type: Pubic	Ca/P	3.36
Date Completed: 02/12/2014	Hair Color:	Na/K	7.8
Methodology: ICP/MS	Treatment:	Zn/Cu	14.5
	Shampoo:	Zn/Cd	> 999
		RANGE	
			4- 30
			1- 12
			0.5- 10
			4- 20
			> 800