



PATIENT: Number 941
 SEX: Female
 AGE: 47

Toxic & Essential Elements; Hair

TOXIC METALS			
	RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 68 th 95 th
Aluminum (Al)	4.8	< 7.0	
Antimony (Sb)	< 0.01	< 0.050	
Arsenic (As)	0.020	< 0.060	
Barium (Ba)	1.0	< 2.0	
Beryllium (Be)	< 0.01	< 0.020	
Bismuth (Bi)	0.026	< 2.0	
Cadmium (Cd)	0.012	< 0.050	
Lead (Pb)	0.10	< 0.60	
Mercury (Hg)	0.14	< 0.80	
Platinum (Pt)	< 0.003	< 0.005	
Thallium (Tl)	< 0.001	< 0.002	
Thorium (Th)	< 0.001	< 0.002	
Uranium (U)	0.014	< 0.060	
Nickel (Ni)	0.27	< 0.30	
Silver (Ag)	0.04	< 0.15	
Tin (Sn)	0.12	< 0.30	
Titanium (Ti)	0.16	< 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)	1060	300- 1200	
Magnesium (Mg)	120	35- 120	
Sodium (Na)	57	20- 250	
Potassium (K)	18	8- 75	
Copper (Cu)	20	11- 37	
Zinc (Zn)	260	140- 220	
Manganese (Mn)	0.11	0.08- 0.60	
Chromium (Cr)	0.35	0.40- 0.65	
Vanadium (V)	0.021	0.018- 0.065	
Molybdenum (Mo)	0.025	0.020- 0.050	
Boron (B)	0.45	0.25- 1.5	
Iodine (I)	0.55	0.25- 1.8	
Lithium (Li)	< 0.004	0.007- 0.020	
Phosphorus (P)	156	150- 220	
Selenium (Se)	0.77	0.55- 1.1	
Strontium (Sr)	4.3	0.50- 7.6	
Sulfur (S)	44500	44000- 50000	
Cobalt (Co)	0.008	0.005- 0.040	
Iron (Fe)	6.6	7.0- 16	
Germanium (Ge)	0.021	0.030- 0.040	
Rubidium (Rb)	0.017	0.007- 0.096	
Zirconium (Zr)	0.013	0.020- 0.42	

SPECIMEN DATA		RATIOS	
COMMENTS:		ELEMENTS	RATIOS
Date Collected: 12/29/2013	Sample Size: 0.204 g	Ca/Mg	8.83
Date Received: 01/02/2014	Sample Type: Head	Ca/P	6.79
Date Completed: 01/04/2014	Hair Color: Brown	Na/K	3.17
Methodology: ICP/MS	Treatment:	Zn/Cu	13
	Shampoo: Neutrogena	Zn/Cd	> 999
		RANGE	
			4- 30
			1- 12
			0.5- 10
			4- 20
			> 800

Health history for hair test 941

- 1. Severe, worsening insomnia and fatigue for past 18 years. Thyroid was treated and normalized years ago. Cortisol and iron are always low but treating them doesn't help.**
- 2. No metal fillings.**
- 3. 5-10 ceramic fillings.**
- 4. Mother had 1-5 metal fillings before pregnancy.**
- 5. Flu test last fall. Almost never get them. 1 travel shot 8 years ago.**
- 6. 60-120 mg of P5P (vitamin B6), 25-50 mg of zinc, lots of lactoferrin.**
- 7. Female, age 47, 5'5" 147 pounds**
- 8. Lived in buildings with lead pipes for 7 years 20 years ago. Competitive swimmer as child (possible copper fungicide exposure). After a year of high-fish diet 12 years ago, had high mercury blood levels and ate a lot of pesto (cilantro) until levels normalized.**
- 9. Cleveland, US**