

HAIR ELEMENTS



PATIENT: Number 46
SEX: Female
AGE: 32
Location: Sandwich, IL, US

POTENTIALLY TOXIC ELEMENTS				
TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Aluminum	2.8	< 7.0		
Antimony	< 0.01	< 0.050		
Arsenic	0.051	< 0.060		
Beryllium	< 0.01	< 0.020		
Bismuth	0.014	< 0.10		
Cadmium	0.020	< 0.10		
Lead	0.16	< 1.0		
Mercury	0.69	< 1.1		
Platinum	< 0.003	< 0.005		
Thallium	< 0.001	< 0.010		
Thorium	< 0.001	< 0.005		
Uranium	0.005	< 0.060		
Nickel	0.08	< 0.40		
Silver	0.01	< 0.15		
Tin	0.03	< 0.30		
Titanium	0.17	< 1.0		
Total Toxic Representation				

ESSENTIAL AND OTHER ELEMENTS							
ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE				
			2.5 th	16 th	50 th	84 th	97.5 th
Calcium	1670	300- 1200					
Magnesium	190	35- 120					
Sodium	250	12- 90					
Potassium	15	8- 38					
Copper	11	12- 35					
Zinc	220	140- 220					
Manganese	0.12	0.15- 0.65					
Chromium	0.33	0.20- 0.40					
Vanadium	0.010	0.018- 0.065					
Molybdenum	0.033	0.028- 0.056					
Boron	0.27	0.30- 2.0					
Iodine	0.11	0.25- 1.3					
Lithium	0.004	0.007- 0.023					
Phosphorus	198	160- 250					
Selenium	0.95	0.95- 1.7					
Strontium	1.3	0.50- 7.6					
Sulfur	49100	44500- 52000					
Barium	1.7	0.26- 3.0					
Cobalt	0.017	0.013- 0.050					
Iron	2.3	5.4- 14					
Germanium	0.034	0.045- 0.065					
Rubidium	0.006	0.007- 0.096					
Zirconium	0.013	0.020- 0.42					

SPECIMEN DATA				RATIOS		
COMMENTS:				ELEMENTS	RATIOS	EXPECTED RANGE
Date Collected:	12/11/2006	Sample Size:	0.197 g	Ca/Mg	8.79	4- 30
Date Received:	12/13/2006	Sample Type:	Head	Ca/P	8.43	1- 12
Date Completed:	12/16/2006	Hair Color:	Brown	Na/K	16.7	0.5- 10
		Treatment:		Zn/Cu	20	4- 20
Methodology:	ICP-MS	Shampoo:	Suave	Zn/Cd	> 999	> 800

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