

HAIR ELEMENTS



PATIENT No 24
SEX: Female
AGE: 44
Location: Burnsville, North Carolina

POTENTIALLY TOXIC ELEMENTS				
TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Aluminum	16	< 7.0		
Antimony	0.039	< 0.050		
Arsenic	0.067	< 0.060		
Beryllium	< 0.01	< 0.020		
Bismuth	0.019	< 0.10		
Cadmium	0.051	< 0.10		
Lead	1.0	< 1.0		
Mercury	0.10	< 1.1		
Platinum	< 0.003	< 0.005		
Thallium	< 0.001	< 0.010		
Thorium	0.001	< 0.005		
Uranium	0.002	< 0.060		
Nickel	0.07	< 0.40		
Silver	0.11	< 0.15		
Tin	0.12	< 0.30		
Titanium	0.53	< 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
Calcium	73	300- 1200				
Magnesium	7	35- 120				
Sodium	32	12- 90				
Potassium	13	8- 38				
Copper	21	12- 35				
Zinc	130	140- 220				
Manganese	0.35	0.15- 0.65				
Chromium	0.65	0.20- 0.40				
Vanadium	0.082	0.018- 0.065				
Molybdenum	0.054	0.028- 0.056				
Boron	0.55	0.30- 2.0				
Iodine	0.48	0.25- 1.3				
Lithium	0.008	0.007- 0.023				
Phosphorus	163	160- 250				
Selenium	1.1	0.95- 1.7				
Strontium	0.21	0.50- 7.6				
Sulfur	49100	44500- 52000				
Barium	0.29	0.26- 3.0				
Cobalt	0.007	0.013- 0.050				
Iron	18	5.4- 14				
Germanium	0.032	0.045- 0.065				
Rubidium	0.027	0.007- 0.096				
Zirconium	0.027	0.020- 0.42				

SPECIMEN DATA				RATIOS		
COMMENTS:				ELEMENTS	RATIOS	EXPECTED RANGE
Date Collected:	10/13/2006	Sample Size:	0.201 g	Ca/Mg	10.4	4- 30
Date Received:	10/19/2006	Sample Type:	Head	Ca/P	0.448	1- 12
Date Completed:	10/21/2006	Hair Color:	RED	Na/K	2.46	0.5- 10
		Treatment:		Zn/Cu	6.19	4- 20
Methodology:	ICP-MS	Shampoo:	Magick Botanicals	Zn/Cd	> 999	> 800

HAIR ELEMENTS



PATIENT: Number 24a
SEX: Female
AGE: 44
Location: Burnsville, North Carolina

POTENTIALLY TOXIC ELEMENTS				
TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Aluminum	12	< 7.0		
Antimony	0.023	< 0.050		
Arsenic	0.096	< 0.060		
Beryllium	< 0.01	< 0.020		
Bismuth	0.019	< 2.0		
Cadmium	0.084	< 0.10		
Lead	0.70	< 1.0		
Mercury	0.06	< 1.1		
Platinum	< 0.003	< 0.005		
Thallium	< 0.001	< 0.010		
Thorium	0.001	< 0.005		
Uranium	0.003	< 0.060		
Nickel	0.06	< 0.40		
Silver	0.12	< 0.15		
Tin	0.09	< 0.30		
Titanium	0.62	< 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	46	300- 1200					
Magnesium	6	35- 120					
Sodium	21	12- 90					
Potassium	8	8- 38					
Copper	22	12- 35					
Zinc	150	140- 220					
Manganese	0.18	0.15- 0.65					
Chromium	0.67	0.20- 0.40					
Vanadium	0.15	0.018- 0.065					
Molybdenum	0.037	0.028- 0.056					
Boron	0.21	0.30- 2.0					
Iodine	0.31	0.25- 1.3					
Lithium	< 0.004	0.007- 0.023					
Phosphorus	151	160- 250					
Selenium	1.4	0.95- 1.7					
Strontium	0.14	0.50- 7.6					
Sulfur	43400	44500- 52000					
Barium	0.20	0.26- 3.0					
Cobalt	0.005	0.013- 0.050					
Iron	20	5.4- 14					
Germanium	0.034	0.045- 0.065					
Rubidium	0.013	0.007- 0.096					
Zirconium	0.10	0.020- 0.42					

SPECIMEN DATA				RATIOS		
COMMENTS:				ELEMENTS	RATIOS	EXPECTED RANGE
Date Collected: 5/8/2007	Sample Size: 0.204 g			Ca/Mg	7.67	4- 30
Date Received: 6/28/2007	Sample Type: Head			Ca/P	0.305	1- 12
Date Completed: 7/6/2007	Hair Color: Red			Na/K	2.63	0.5- 10
	Treatment:			Zn/Cu	6.82	4- 20
Methodology: ICP-MS	Shampoo: Magik Botanicals			Zn/Cd	> 999	> 800
	V06.99					