

HAIR ELEMENTS



PATIENT: Number 43
SEX: Male
AGE: 34
Location: Scheveningen, Holland

POTENTIALLY TOXIC ELEMENTS				
TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Aluminum	8.9	< 7.0		
Antimony	0.017	< 0.066		
Arsenic	0.061	< 0.080		
Beryllium	< 0.01	< 0.020		
Bismuth	0.022	< 0.060		
Cadmium	0.011	< 0.15		
Lead	0.26	< 2.0		
Mercury	0.47	< 1.1		
Platinum	< 0.003	< 0.005		
Thallium	< 0.001	< 0.010		
Thorium	< 0.001	< 0.005		
Uranium	0.009	< 0.060		
Nickel	0.11	< 0.40		
Silver	0.05	< 0.12		
Tin	0.04	< 0.30		
Titanium	0.39	< 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	1120	200- 750					
Magnesium	62	25- 75					
Sodium	3	12- 90					
Potassium	< 3	9- 40					
Copper	24	10- 28					
Zinc	200	130- 200					
Manganese	0.11	0.15- 0.65					
Chromium	0.24	0.20- 0.40					
Vanadium	0.017	0.018- 0.065					
Molybdenum	0.045	0.025- 0.064					
Boron	0.19	0.40- 3.0					
Iodine	0.18	0.25- 1.3					
Lithium	< 0.004	0.007- 0.023					
Phosphorus	203	160- 250					
Selenium	0.52	0.95- 1.7					
Strontium	2.6	0.30- 3.5					
Sulfur	46400	44500- 52000					
Barium	0.38	0.16- 1.6					
Cobalt	0.011	0.013- 0.035					
Iron	4.7	5.4- 13					
Germanium	0.032	0.045- 0.065					
Rubidium	0.007	0.011- 0.12					
Zirconium	0.033	0.020- 0.44					

SPECIMEN DATA				RATIOS		
COMMENTS:				ELEMENTS	RATIOS	EXPECTED RANGE
Date Collected:	12/1/2006	Sample Size:	0.196 g	Ca/Mg	18.1	4- 30
Date Received:	12/13/2006	Sample Type:	Head	Ca/P	5.52	0.8- 8
Date Completed:	12/16/2006	Hair Color:	Brown	Na/K	1	0.5- 10
		Treatment:		Zn/Cu	8.33	4- 20
Methodology:	ICP-MS	Shampoo:	Normal	Zn/Cd	> 999	> 800

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