

HAIR ELEMENTS



PATIENT: Number 308
SEX: Male
AGE: 34
LOCATION: Lifelong in South-central Alaskan

POTENTIALLY TOXIC ELEMENTS				
TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Aluminum	18	< 7.0		
Antimony	0.31	< 0.066		
Arsenic	0.38	< 0.080		
Barium	1.2	< 1.0		
Beryllium	< 0.01	< 0.020		
Bismuth	0.011	< 2.0		
Cadmium	8.3	< 0.065		
Lead	28	< 0.80		
Mercury	0.19	< 0.80		
Platinum	< 0.003	< 0.005		
Thallium	0.001	< 0.002		
Thorium	0.002	< 0.002		
Uranium	0.001	< 0.060		
Nickel	0.32	< 0.20		
Silver	0.36	< 0.08		
Tin	0.57	< 0.30		
Titanium	0.91	< 0.60		
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	190	200- 750					
Magnesium	25	25- 75					
Sodium	210	20- 180					
Potassium	130	9- 80					
Copper	30	11- 30					
Zinc	140	130- 200					
Manganese	1.7	0.08- 0.50					
Chromium	0.90	0.40- 0.70					
Vanadium	0.15	0.018- 0.065					
Molybdenum	0.10	0.025- 0.060					
Boron	2.5	0.40- 3.0					
Iodine	0.61	0.25- 1.8					
Lithium	0.022	0.007- 0.020					
Phosphorus	193	150- 220					
Selenium	1.1	0.70- 1.2					
Strontium	0.47	0.30- 3.5					
Sulfur	48700	44000- 50000					
Cobalt	0.024	0.004- 0.020					
Iron	36	7.0- 16					
Germanium	0.038	0.030- 0.040					
Rubidium	0.15	0.011- 0.12					
Zirconium	0.086	0.020- 0.44					

SPECIMEN DATA				RATIOS		
COMMENTS: 1198921 - results checked				ELEMENTS	RATIOS	EXPECTED RANGE
Date Collected: 8/17/2009	Sample Size: 0.195 g					
Date Received: 8/20/2009	Sample Type: Head			Ca/Mg	7.6	4- 30
Date Completed: 8/22/2009	Hair Color: Brown			Ca/P	0.984	0.8- 8
Client Reference:	Treatment:			Na/K	1.62	0.5- 10
Methodology: ICP-MS	Shampoo: Garnier			Zn/Cu	4.67	4- 20
				Zn/Cd	16.9	> 800

V010.08



PATIENT: Number 308 - follow-up
 SEX: Male
 AGE: 37

Toxic & Essential Elements; Hair

TOXIC METALS			
	RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 68 th 95 th
Aluminum (Al)	3.5	< 7.0	
Antimony (Sb)	0.053	< 0.066	
Arsenic (As)	0.14	< 0.080	
Barium (Ba)	0.59	< 1.0	
Beryllium (Be)	< 0.01	< 0.020	
Bismuth (Bi)	0.015	< 2.0	
Cadmium (Cd)	0.26	< 0.065	
Lead (Pb)	1.9	< 0.80	
Mercury (Hg)	0.23	< 0.80	
Platinum (Pt)	< 0.003	< 0.005	
Thallium (Tl)	0.001	< 0.002	
Thorium (Th)	< 0.001	< 0.002	
Uranium (U)	0.006	< 0.060	
Nickel (Ni)	0.04	< 0.20	
Silver (Ag)	0.07	< 0.08	
Tin (Sn)	0.08	< 0.30	
Titanium (Ti)	0.36	< 0.60	
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)	248	200- 750			
Magnesium (Mg)	22	25- 75			
Sodium (Na)	27	20- 180			
Potassium (K)	21	9- 80			
Copper (Cu)	9.9	11- 30			
Zinc (Zn)	160	130- 200			
Manganese (Mn)	1.2	0.08- 0.50			
Chromium (Cr)	0.67	0.40- 0.70			
Vanadium (V)	0.091	0.018- 0.065			
Molybdenum (Mo)	0.037	0.025- 0.060			
Boron (B)	1.2	0.40- 3.0			
Iodine (I)	1.5	0.25- 1.8			
Lithium (Li)	0.007	0.007- 0.020			
Phosphorus (P)	178	150- 220			
Selenium (Se)	0.82	0.70- 1.2			
Strontium (Sr)	0.47	0.30- 3.5			
Sulfur (S)	47900	44000- 50000			
Cobalt (Co)	0.006	0.004- 0.020			
Iron (Fe)	9.1	7.0- 16			
Germanium (Ge)	0.020	0.030- 0.040			
Rubidium (Rb)	0.029	0.011- 0.12			
Zirconium (Zr)	0.083	0.020- 0.44			

SPECIMEN DATA		RATIOS		
COMMENTS:		ELEMENTS	RATIOS	RANGE
Date Collected: 02/26/2013	Sample Size: 0.197 g	Ca/Mg	11.3	4- 30
Date Received: 03/04/2013	Sample Type: Head	Ca/P	1.39	0.8- 8
Date Completed: 03/08/2013	Hair Color: Brown	Na/K	1.29	0.5- 10
Methodology: ICP/MS	Treatment:	Zn/Cu	16.2	4- 20
	Shampoo: Avalon	Zn/Cd	615	> 800

Health history for hair test 308 - for first hair test

1. Dental history (wisdom teeth removed? First root canal placed? Braces? First amalgam etc...) Zero dental work.
2. What dental work do you currently have in place? What part of the dental cleanup have you completed? Zero dental work.
3. What dentistry did your mother have at any time before or during pregnancy? Unknown.
4. What vaccinations have you had and when (including flu and especially travel shots)? Normally vaxxed as a child in the 70s.
5. Supplements and medications (including dosages) taken at time of hair test, or for the 3-6 months before the sample was taken? No medications.
6. What is your age, height and weight? 34, 6 feet, 200 pounds
7. Other information you feel may be relevant? father of #305. Small aircraft pilot. Drinking water comes from a hand-dug spring. Still waiting for water test results.
8. What is your location – city & country (so that we can learn where certain toxins are more prevalent). Lifelong Southcentral Alaskan