

# HAIR ELEMENTS



**PATIENT: Number 704**  
**SEX: Male**  
**AGE: 2**

POTENTIALLY TOXIC ELEMENTS				
TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 <sup>th</sup>	95 <sup>th</sup>
Aluminum	12	< 8.0		
Antimony	0.079	< 0.066		
Arsenic	0.15	< 0.080		
Barium	0.18	< 0.50		
Beryllium	< 0.01	< 0.020		
Bismuth	0.10	< 2.0		
Cadmium	0.10	< 0.070		
Lead	0.31	< 1.0		
Mercury	0.05	< 0.40		
Platinum	< 0.003	< 0.005		
Thallium	< 0.001	< 0.002		
Thorium	< 0.001	< 0.002		
Uranium	0.13	< 0.060		
Nickel	0.05	< 0.20		
Silver	0.06	< 0.20		
Tin	1.1	< 0.30		
Titanium	0.76	< 1.0		
Total Toxic Representation				

ESSENTIAL AND OTHER ELEMENTS					
ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE		
			2.5 <sup>th</sup>	16 <sup>th</sup>	50 <sup>th</sup>
Calcium	139	125- 370			
Magnesium	14	12- 30			
Sodium	56	20- 200			
Potassium	53	12- 200			
Copper	30	11- 18			
Zinc	72	100- 190			
Manganese	0.08	0.10- 0.50			
Chromium	0.50	0.43- 0.80			
Vanadium	0.067	0.030- 0.10			
Molybdenum	0.10	0.050- 0.13			
Boron	1.9	0.70- 5.0			
Iodine	0.55	0.25- 1.3			
Lithium	0.005	0.007- 0.020			
Phosphorus	204	150- 220			
Selenium	0.76	0.70- 1.1			
Strontium	0.10	0.16- 1.0			
Sulfur	52100	45500- 53000			
Cobalt	0.005	0.004- 0.020			
Iron	15	7.0- 16			
Germanium	0.029	0.030- 0.040			
Rubidium	0.042	0.016- 0.18			
Zirconium	0.15	0.040- 1.0			

SPECIMEN DATA		RATIOS		
<b>COMMENTS:</b>		ELEMENTS	RATIOS	EXPECTED RANGE
Date Collected: 8/23/2010	Sample Size: 0.197 g			
Date Received: 8/27/2010	Sample Type: Head	Ca/Mg	9.93	4- 30
Date Completed: 8/28/2010	Hair Color:	Ca/P	0.681	0.8- 8
Client Reference:	Treatment:	Na/K	1.06	0.5- 10
Methodology: ICP-MS	Shampoo:	Zn/Cu	2.4	4- 20
		Zn/Cd	720	> 800

V010.08



PATIENT: Number 704 - follow up  
 SEX: Male  
 AGE: 4

## Toxic & Essential Elements; Hair

TOXIC METALS			
	RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 68 <sup>th</sup> 95 <sup>th</sup>
Aluminum (Al)	7.6	< 8.0	
Antimony (Sb)	0.092	< 0.066	
Arsenic (As)	0.13	< 0.080	
Barium (Ba)	0.14	< 0.50	
Beryllium (Be)	< 0.01	< 0.020	
Bismuth (Bi)	0.068	< 2.0	
Cadmium (Cd)	0.086	< 0.070	
Lead (Pb)	0.81	< 1.0	
Mercury (Hg)	0.11	< 0.40	
Platinum (Pt)	< 0.003	< 0.005	
Thallium (Tl)	< 0.001	< 0.002	
Thorium (Th)	< 0.001	< 0.002	
Uranium (U)	0.061	< 0.060	
Nickel (Ni)	0.10	< 0.20	
Silver (Ag)	0.22	< 0.20	
Tin (Sn)	0.75	< 0.30	
Titanium (Ti)	0.34	< 1.0	
Total Toxic Representation			

ESSENTIAL AND OTHER ELEMENTS					
	RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 2.5 <sup>th</sup> 16 <sup>th</sup> 50 <sup>th</sup> 84 <sup>th</sup> 97.5 <sup>th</sup>		
Calcium (Ca)	170	125- 370			
Magnesium (Mg)	14	12- 30			
Sodium (Na)	120	20- 200			
Potassium (K)	140	12- 200			
Copper (Cu)	24	11- 18			
Zinc (Zn)	36	100- 190			
Manganese (Mn)	0.09	0.10- 0.50			
Chromium (Cr)	0.58	0.43- 0.80			
Vanadium (V)	0.094	0.030- 0.10			
Molybdenum (Mo)	0.033	0.050- 0.13			
Boron (B)	10	0.70- 5.0			
Iodine (I)	0.57	0.25- 1.3			
Lithium (Li)	0.007	0.007- 0.020			
Phosphorus (P)	160	150- 220			
Selenium (Se)	0.53	0.70- 1.1			
Strontium (Sr)	0.13	0.16- 1.0			
Sulfur (S)	48200	45500- 53000			
Cobalt (Co)	0.009	0.004- 0.020			
Iron (Fe)	7.6	7.0- 16			
Germanium (Ge)	0.025	0.030- 0.040			
Rubidium (Rb)	0.20	0.016- 0.18			
Zirconium (Zr)	0.22	0.040- 1.0			

SPECIMEN DATA		RATIOS		
<b>COMMENTS:</b>		<b>ELEMENTS</b>	<b>RATIOS</b>	<b>RANGE</b>
Date Collected: 12/14/2012	Sample Size: 0.196 g	Ca/Mg	12.1	4- 30
Date Received: 12/20/2012	Sample Type: Head	Ca/P	1.06	0.8- 8
Date Completed: 12/23/2012	Hair Color: Brown	Na/K	0.857	0.5- 10
Methodology: ICP/MS	Treatment:	Zn/Cu	1.5	4- 20
	Shampoo: Jj	Zn/Cd	419	> 800

## Hair Test 704

1. What are your current symptoms and health history Eczema (very sensitive skin), severe food and environmental allergies, hyperactivity, always on the go (restless).
2. Dental history (Wisdom teeth removed and when? Any other extractions. First root canal placed? Braces? First amalgam etc...) None
3. What dental work do you currently have in place? What part of the dental clean-up have you completed? None
4. What dentistry did your mother have at any time before or during pregnancy? Composite fillings, one crown.
5. What vaccinations have you had and when (including flu and especially travel shots). All vaccinations up until 18 months. Stopped vaccinating afterwards. One flu shot at around 13 months. No travel shots.
6. Supplements and medications (including dosages) taken at time of hair test, or for the 3-6 months before the sample was taken?  
  
Cod liver oil – ½ tsp; Vit D – 3000 units, GSE – 4 drops am + 4 drops pm, Probiotics – ½ pill – 12.5 billion CFUs, magnesium – 250 mg, zinc – 22 mg, digestive enzymes – 1 pill with each meal, adrenal cortex extract (liquid) – 5 drops;
7. What is your age, height and weight? 4.5 years old, male, 34 pounds.
8. Other information you feel may be relevant? Son of hair test 702. First test done 2.5 years ago before we started biomed (no supplements at the time of the test), second test done in December of 2012 after 2.5 years of biomed.
9. What is your location – city & country (so that we can learn where certain toxins are more prevalent). Bay Area, CA, USA.