

# HAIR ELEMENTS



**PATIENT: Number 356**  
**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	3.8	< 8.0		
Antimony	0.12	< 0.066		
Arsenic	0.21	< 0.080		
Barium	0.22	< 0.50		
Beryllium	< 0.01	< 0.020		
Bismuth	0.026	< 2.0		
Cadmium	0.062	< 0.070		
Lead	0.14	< 1.0		
Mercury	0.11	< 0.40		
Platinum	< 0.003	< 0.005		
Thallium	< 0.001	< 0.002		
Thorium	< 0.001	< 0.002		
Uranium	0.002	< 0.060		
Nickel	0.07	< 0.20		
Silver	0.04	< 0.20		
Tin	0.26	< 0.30		
Titanium	0.33	< 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>	84 <sup>th</sup>	97.5 <sup>th</sup>
Calcium	198	125- 370					
Magnesium	14	12- 30					
Sodium	110	20- 200					
Potassium	310	12- 200					
Copper	7.7	11- 18					
Zinc	50	100- 190					
Manganese	0.08	0.10- 0.50					
Chromium	0.62	0.43- 0.80					
Vanadium	0.089	0.030- 0.10					
Molybdenum	0.14	0.050- 0.13					
Boron	22	0.70- 5.0					
Iodine	0.80	0.25- 1.3					
Lithium	0.077	0.007- 0.020					
Phosphorus	183	150- 220					
Selenium	0.92	0.70- 1.1					
Strontium	0.14	0.16- 1.0					
Sulfur	53800	45500- 53000					
Cobalt	0.005	0.004- 0.020					
Iron	14	7.0- 16					
Germanium	0.043	0.030- 0.040					
Rubidium	0.33	0.016- 0.18					
Zirconium	0.92	0.040- 1.0					

SPECIMEN DATA				RATIOS		
<b>COMMENTS:</b>				<b>ELEMENTS</b>	<b>RATIOS</b>	<b>EXPECTED RANGE</b>
Date Collected: 4/21/2010	Sample Size: 0.196 g			Ca/Mg	14.1	4- 30
Date Received: 4/26/2010	Sample Type: Head			Ca/P	1.08	0.8- 8
Date Completed: 5/1/2010	Hair Color: Brown			Na/K	0.355	0.5- 10
Client Reference: 1229518	Treatment:			Zn/Cu	6.49	4- 20
Methodology: ICP-MS	Shampoo: Kiss My Face			Zn/Cd	806	> 800

## **Health history for hair test 356**

Symptoms: 27 month old boy, 28 lbs., diagnosed with autism one month ago, symptoms include:

- diminished sociability
- weak language development(spoke a few random words, moans a lot, does not seem to comprehend words)
- limited eye contact, this has improved recently
- stimming (paces back and forth)
- cause/reaction play (repeatedly pressing buttons that cause light or sound reactions)
- laughing to himself
- hand flapping when excited
- constantly putting things in his mouth
- picky eater
- irritable
- mucus
- hypotonia
- dry skin
- itching
- dark circles under eyes
- soft stool

### **Current treatments:**

- gf/cf diet
- Nordic naturals CLO
- quercitin

### **Dental history:**

- he has had no work done, but Mom had two amalgam fillings installed 7 years ago and were present during pregnancy

### **Vaccinations:**

Everything up till and including the MMR at 12 months. Stopped after that.