



PATIENT: Number 874  
 SEX: Male  
 AGE: 1

**Toxic & Essential Elements; Hair**

TOXIC METALS			
	RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 68 <sup>th</sup> 95 <sup>th</sup>
Aluminum (Al)	17	< 8.0	
Antimony (Sb)	0.25	< 0.066	
Arsenic (As)	0.18	< 0.080	
Barium (Ba)	0.19	< 0.50	
Beryllium (Be)	< 0.01	< 0.020	
Bismuth (Bi)	0.59	< 2.0	
Cadmium (Cd)	0.063	< 0.070	
Lead (Pb)	1.5	< 1.0	
Mercury (Hg)	0.48	< 0.40	
Platinum (Pt)	< 0.003	< 0.005	
Thallium (Tl)	< 0.001	< 0.002	
Thorium (Th)	< 0.001	< 0.002	
Uranium (U)	0.026	< 0.060	
Nickel (Ni)	0.32	< 0.20	
Silver (Ag)	0.39	< 0.20	
Tin (Sn)	0.65	< 0.30	
Titanium (Ti)	0.91	< 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)	213	125- 370			
Magnesium (Mg)	160	12- 30			
Sodium (Na)	96	20- 200			
Potassium (K)	16	12- 200			
Copper (Cu)	14	11- 18			
Zinc (Zn)	43	100- 190			
Manganese (Mn)	0.16	0.10- 0.50			
Chromium (Cr)	0.87	0.43- 0.80			
Vanadium (V)	0.19	0.030- 0.10			
Molybdenum (Mo)	0.071	0.050- 0.13			
Boron (B)	3.3	0.70- 5.0			
Iodine (I)	1.4	0.25- 1.3			
Lithium (Li)	0.013	0.007- 0.020			
Phosphorus (P)	129	150- 220			
Selenium (Se)	0.89	0.70- 1.1			
Strontium (Sr)	1.3	0.16- 1.0			
Sulfur (S)	48800	45500- 53000			
Cobalt (Co)	0.012	0.004- 0.020			
Iron (Fe)	14	7.0- 16			
Germanium (Ge)	0.030	0.030- 0.040			
Rubidium (Rb)	0.020	0.016- 0.18			
Zirconium (Zr)	1.7	0.040- 1.0			

SPECIMEN DATA		RATIOS		
<b>COMMENTS:</b>		ELEMENTS	RATIOS	RANGE
Date Collected: 10/23/2013	Sample Size: 0.201 g	Ca/Mg	1.33	4- 30
Date Received: 10/29/2013	Sample Type: Head	Ca/P	1.65	0.8- 8
Date Completed: 11/02/2013	Hair Color: Blond	Na/K	6	0.5- 10
Methodology: ICP/MS	Treatment:	Zn/Cu	3.07	4- 20
	Shampoo: Jj Baby	Zn/Cd	683	> 800

### **Health history for hair test 874**

- My son is a bit hyperactive, has problems falling asleep.
  - No dental history
  - No dental work
  - Mother had amalgam replacement when she was breastfeeding.
  - First MMR, Infanrix, Priorix, Rotarix, Prevenar13
  - None
  - 20 months, height is 86 cm, weight is 12 kg (believe is 26.5 pounds)
  - Other information you feel may be relevant?
- Plzen, Czech Republic