



SEX: Male  
AGE: 15

## Toxic & Essential Elements; Hair

TOXIC METALS			
	RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 68 <sup>th</sup> 95 <sup>th</sup>
Aluminum (Al)	0.4	< 8.0	
Antimony (Sb)	0.022	< 0.066	
Arsenic (As)	1.6	< 0.080	
Barium (Ba)	0.73	< 0.75	
Beryllium (Be)	< 0.01	< 0.020	
Bismuth (Bi)	0.043	< 2.0	
Cadmium (Cd)	< 0.009	< 0.060	
Lead (Pb)	0.33	< 1.0	
Mercury (Hg)	0.17	< 0.40	
Platinum (Pt)	< 0.003	< 0.005	
Thallium (Tl)	< 0.001	< 0.002	
Thorium (Th)	< 0.001	< 0.002	
Uranium (U)	< 0.001	< 0.060	
Nickel (Ni)	0.02	< 0.20	
Silver (Ag)	0.02	< 0.10	
Tin (Sn)	0.05	< 0.30	
Titanium (Ti)	0.36	< 0.60	
<b>Total Toxic Representation</b>			

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)	487	200- 700			
Magnesium (Mg)	55	18- 70			
Sodium (Na)	70	20- 200			
Potassium (K)	59	9- 80			
Copper (Cu)	10	11- 32			
Zinc (Zn)	170	150- 230			
Manganese (Mn)	0.08	0.08- 0.50			
Chromium (Cr)	0.33	0.40- 0.70			
Vanadium (V)	0.010	0.020- 0.075			
Molybdenum (Mo)	0.051	0.030- 0.060			
Boron (B)	0.69	0.34- 3.0			
Iodine (I)	0.54	0.25- 1.3			
Lithium (Li)	0.071	0.007- 0.020			
Phosphorus (P)	205	150- 220			
Selenium (Se)	1.1	0.70- 1.2			
Strontium (Sr)	1.2	0.30- 3.2			
Sulfur (S)	45400	44000- 50000			
Cobalt (Co)	< 0.002	0.004- 0.020			
Iron (Fe)	4.8	7.0- 16			
Germanium (Ge)	0.035	0.030- 0.040			
Rubidium (Rb)	0.069	0.009- 0.090			
Zirconium (Zr)	0.008	0.047- 0.70			

SPECIMEN DATA		RATIOS	
<b>COMMENTS:</b>		<b>ELEMENTS</b>	<b>RATIOS</b>
Date Collected: 11/11/2018		Ca/Mg	8.85
Date Received: 11/20/2018		Ca/P	2.38
Date Completed: 11/23/2018		Na/K	1.19
Methodology: ICP/MS		Zn/Cu	17
Sample Size: 0.199 g	Sample Type: Head	Zn/Cd	> 999
Hair Color: Black	Treatment:		
Shampoo: Avalon			
		<b>RANGE</b>	
		4- 30	
		0.8- 8	
		0.5- 10	
		4- 20	
		> 800	

**What are your current symptoms and health history?** My son (15 years old) was diagnosed with autism when he was a 3 years old.

**Dental history (Wisdom teeth removed and when? Any other extractions. First root canal placed? Braces? First amalgam etc...)**

No major dental work done for him.

**What dental work do you currently have in place? What part of the dental clean-up have you completed?** No dental work done for him.

**What dentistry did your mother have at any time before or during pregnancy?** My wife (his mother) removed her amalgams about one year before conception of our ASD son

**What vaccinations have you had and when (including flu and especially travel shots)?** My son received all of the suggested childhood vaccines including MMR in USA when he was very young.

**Supplements and medications (including dosages) taken at time of hair test, or for the 3-6 months before the sample was taken?** He has been doing AC cutler protocol for the last 3 years. He takes core 4 plus many other recommended supplements and he does not take any medications.

**What is your age, height and weight?** 15 years, 5 foot 9, 135 pounds

**Other information you feel may be relevant?** None

**What is your location – city & country (so that we can learn where certain toxins are more prevalent).** London UK but we moved from CT, USA when my son was six years old.

Thanks for your help on this,