



SEX: Male
AGE: 5

Toxic & Essential Elements; Hair

TOXIC METALS			
	RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 68 th 95 th
Aluminum (Al)	28	< 8.0	
Antimony (Sb)	0.050	< 0.066	
Arsenic (As)	0.13	< 0.080	
Barium (Ba)	0.14	< 0.50	
Beryllium (Be)	< 0.01	< 0.020	
Bismuth (Bi)	0.097	< 2.0	
Cadmium (Cd)	0.017	< 0.070	
Lead (Pb)	0.30	< 1.0	
Mercury (Hg)	0.13	< 0.40	
Platinum (Pt)	< 0.003	< 0.005	
Thallium (Tl)	< 0.001	< 0.002	
Thorium (Th)	0.002	< 0.002	
Uranium (U)	0.018	< 0.060	
Nickel (Ni)	0.08	< 0.20	
Silver (Ag)	0.05	< 0.20	
Tin (Sn)	0.22	< 0.30	
Titanium (Ti)	1.3	< 1.0	
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)	108	125- 370			
Magnesium (Mg)	14	12- 30			
Sodium (Na)	15	20- 200			
Potassium (K)	16	12- 200			
Copper (Cu)	8.9	11- 18			
Zinc (Zn)	130	100- 190			
Manganese (Mn)	0.43	0.10- 0.50			
Chromium (Cr)	0.53	0.43- 0.80			
Vanadium (V)	0.069	0.030- 0.10			
Molybdenum (Mo)	0.071	0.050- 0.13			
Boron (B)	3.6	0.70- 5.0			
Iodine (I)	1.6	0.25- 1.3			
Lithium (Li)	0.010	0.007- 0.020			
Phosphorus (P)	152	150- 220			
Selenium (Se)	0.79	0.70- 1.1			
Strontium (Sr)	0.15	0.16- 1.0			
Sulfur (S)	49900	45500- 53000			
Cobalt (Co)	0.009	0.004- 0.020			
Iron (Fe)	24	7.0- 16			
Germanium (Ge)	0.034	0.030- 0.040			
Rubidium (Rb)	0.044	0.016- 0.18			
Zirconium (Zr)	4.7	0.040- 1.0			

SPECIMEN DATA		RATIOS	
COMMENTS:		ELEMENTS	RATIOS
Date Collected: 02/23/2015		Ca/Mg	7.71
Date Received: 02/27/2015		Ca/P	0.711
Date Completed: 02/28/2015		Na/K	0.938
Methodology: ICP/MS		Zn/Cu	14.6
Sample Size: 0.161 g	Sample Type: Head	Zn/Cd	> 999
Hair Color: Blond	Treatment:		
Shampoo: Suave			
		RANGE	
		4- 30	
		0.8- 8	
		0.5- 10	
		4- 20	
		> 800	

Health history for hair test 1056

1. 5 year old male with ASD, says maybe 5 words, a lot of stimming (flapping, toe walking). With limited language, unsure of other symptoms.
2. No dental history.
3. None
4. Mother with 6 mercury fillings and one composite filling. One mercury filling replaced when son was 6 months old and exclusively breastfed. Not sure how safe removal was. Dental dam was used. At least 2 fillings are cracked and need replacing.
5. No vaccines. Mother has had full childhood vaccines (in 1970s) and flu vaccines and other vaccines while in Air Force (1992-1996) - flu shot 3 years and typhoid/yellow fever.
6. GABA 500 mg once daily, Essential Multi 3 times daily, Essential 4 four times daily, ascorbic acid 1500 mg in divided doses daily, L-Taurine 500 mg daily, Acetyl L-Carnitine 500 mg daily, Lithium drops 1000 mcg daily, Micellized Vitamin A 10,050 IU daily, Zinc drops 15 mg daily.
7. 5 years old, 40 pounds, approximately 40 inches tall
8. On SCD for 3 years, only eating organic veggies/grassfed meats. Only cook in cast iron pans.
9. Athens, GA USA