

## Toxic &amp; Essential Elements; Hair

TOXIC METALS				
		RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 68 <sup>th</sup> 95 <sup>th</sup>
Aluminum	(Al)	0.9	< 7.0	
Antimony	(Sb)	0.012	< 0.066	
Arsenic	(As)	0.020	< 0.080	
Barium	(Ba)	0.17	< 1.0	
Beryllium	(Be)	< 0.01	< 0.020	
Bismuth	(Bi)	< 0.002	< 2.0	
Cadmium	(Cd)	< 0.009	< 0.065	
Lead	(Pb)	0.05	< 0.80	
Mercury	(Hg)	0.28	< 0.80	
Platinum	(Pt)	< 0.003	< 0.005	
Thallium	(Tl)	0.001	< 0.002	
Thorium	(Th)	< 0.001	< 0.002	
Uranium	(U)	0.015	< 0.060	
Nickel	(Ni)	0.04	< 0.20	
Silver	(Ag)	0.01	< 0.08	
Tin	(Sn)	< 0.02	< 0.30	
Titanium	(Ti)	0.28	< 0.60	
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)	351	200- 750	
Magnesium	(Mg)	41	25- 75	
Sodium	(Na)	3	20- 180	
Potassium	(K)	3	9- 80	
Copper	(Cu)	16	11- 30	
Zinc	(Zn)	270	130- 200	
Manganese	(Mn)	0.05	0.08- 0.50	
Chromium	(Cr)	0.31	0.40- 0.70	
Vanadium	(V)	0.012	0.018- 0.065	
Molybdenum	(Mo)	0.026	0.025- 0.060	
Boron	(B)	0.48	0.40- 3.0	
Iodine	(I)	0.41	0.25- 1.8	
Lithium	(Li)	< 0.004	0.007- 0.020	
Phosphorus	(P)	154	150- 220	
Selenium	(Se)	1.1	0.70- 1.2	
Strontium	(Sr)	0.63	0.30- 3.5	
Sulfur	(S)	49100	44000- 50000	
Cobalt	(Co)	0.012	0.004- 0.020	
Iron	(Fe)	4.0	7.0- 16	
Germanium	(Ge)	0.036	0.030- 0.040	
Rubidium	(Rb)	< 0.003	0.011- 0.12	
Zirconium	(Zr)	0.009	0.020- 0.44	

SPECIMEN DATA	RATIOS		
	ELEMENTS	RATIOS	RANGE
<b>COMMENTS:</b>  Date Collected: 04/09/2018 Date Received: 04/16/2018 Date Completed: 04/18/2018 Methodology: ICP/MS  Sample Size: 0.2 g Sample Type: Head Hair Color: Brown Treatment: Shampoo: Dr Bronners	Ca/Mg	8.56	4- 30
	Ca/P	2.28	0.8- 8
	Na/K	1	0.5- 10
	Zn/Cu	16.9	4- 20
	Zn/Cd	> 999	> 800

1. What are your current symptoms and health history?
  1. Brain fog, fatigue, muscle weakness, trouble concentrating, memory issues, dizziness, anxiety, cold, occasional tingling/numbness in fingers and toes, typical feeling of being cold. Symptoms are most noticeable mid-morning until late afternoon. Symptoms started about 2 years ago and have remained steady.
2. Dental history (Wisdom teeth removed and when? Any other extractions. First root canal placed? Braces? First amalgam etc...)
  1. Wisdom teeth removed in 2004. No braces, no root canal, overall good tooth health.
3. What dental work do you currently have in place? What part of the dental clean-up have you completed?
  1. Eight small composite/resin fillings. No amalgams.
4. What dentistry did your mother have at any time before or during pregnancy?
  1. 5-7 amalgam fillings
5. What vaccinations have you had and when (including flu and especially travel shots)?
  1. Hepatitis A - 9/2016
  2. Influenza Quadrivalent Preservative Free - 10, 2017, 9/2016, 12/2015, and most years since childhood.
  3. Tdap (adacel) - 9/2016, 3/2007
6. Supplements and medications (including dosages) taken at time of hair test, or for the 3-6 months before the sample was taken?
  1. Stopped all supplements two weeks prior to hair test, but had been taking:
    2. Naturemade B-Complex with C 1x/day
    3. Pure Formulas, ADB5-Plus 2x/day
    4. Fish Oil - Norweigan Pure DHA
7. What is your age, height and weight?
  1. 34, male, 6'2", 190lbs
8. Other information you feel may be relevant?
  1. None
9. What is your location – city & country (so that we can learn where certain toxins are more prevalent).
  1. Chicago, IL, USA