



PATIENT: Number 919
 SEX: Female
 AGE: 17

Toxic & Essential Elements; Hair

TOXIC METALS			
	RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 68 th 95 th
Aluminum (Al)	1.3	< 8.0	
Antimony (Sb)	0.021	< 0.066	
Arsenic (As)	0.072	< 0.060	
Barium (Ba)	0.14	< 1.5	
Beryllium (Be)	< 0.01	< 0.020	
Bismuth (Bi)	0.023	< 2.0	
Cadmium (Cd)	< 0.009	< 0.060	
Lead (Pb)	0.26	< 0.60	
Mercury (Hg)	0.65	< 0.40	
Platinum (Pt)	< 0.003	< 0.005	
Thallium (Tl)	< 0.001	< 0.002	
Thorium (Th)	< 0.001	< 0.002	
Uranium (U)	0.12	< 0.060	
Nickel (Ni)	0.11	< 0.30	
Silver (Ag)	0.21	< 0.18	
Tin (Sn)	0.05	< 0.30	
Titanium (Ti)	0.27	< 0.60	
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)	413	350- 1000			
Magnesium (Mg)	32	35- 120			
Sodium (Na)	70	18- 180			
Potassium (K)	16	8- 75			
Copper (Cu)	40	11- 37			
Zinc (Zn)	230	150- 230			
Manganese (Mn)	0.12	0.08- 0.60			
Chromium (Cr)	0.45	0.40- 0.65			
Vanadium (V)	0.054	0.020- 0.075			
Molybdenum (Mo)	0.024	0.025- 0.060			
Boron (B)	0.97	0.20- 1.2			
Iodine (I)	0.78	0.25- 1.3			
Lithium (Li)	0.010	0.007- 0.020			
Phosphorus (P)	155	150- 220			
Selenium (Se)	0.81	0.70- 1.1			
Strontium (Sr)	1.0	0.86- 6.2			
Sulfur (S)	50700	44000- 50000			
Cobalt (Co)	0.007	0.005- 0.040			
Iron (Fe)	8.5	7.0- 16			
Germanium (Ge)	0.026	0.031- 0.040			
Rubidium (Rb)	0.020	0.006- 0.060			
Zirconium (Zr)	0.14	0.025- 0.50			

SPECIMEN DATA		RATIOS		
COMMENTS:		ELEMENTS	RATIOS	RANGE
Date Collected: 10/22/2013	Sample Size: 0.199 g	Ca/Mg	12.9	4- 30
Date Received: 10/26/2013	Sample Type: Head	Ca/P	2.66	1- 12
Date Completed: 10/31/2013	Hair Color: Brown	Na/K	4.38	0.5- 10
Methodology: ICP/MS	Treatment:	Zn/Cu	5.75	4- 20
	Shampoo: Aveeno	Zn/Cd	> 999	> 800

Health history for hair test 919

- *Current symptoms and health history*
 - Soy intolerance (6 months)
 - Ear infections (2 by age 3)
 - Chronic constipation (since age 3)
 - Vaginal yeast infections (age 5 – 7)
 - Nose bleeds (all her life)
 - “hot” ear (since early childhood)
 - Food allergies to wheat and dairy (started age 11 after onset of menstruation)
 - Panic attacks and anxiety (age 11 after onset of menstruation)
 - Extra weight despite healthy diet
 - Chronic inflammatory sport injuries: shin splints, knee and hip pain, arch pain (teen years)
 - Scoliosis (teen years – has resolved on its own)
 - Low Vit D (26 ng/mL – insufficiency)
 - Low Iron (47 ug/dL)
 - Percent Iron Saturation(14%)

- *Dental history*
 - Dental cleanings twice a year; fluoride treatments; sealants on large molars; braces for one year*

- *Dental work currently in place? What work have you completed*
 - Cosmetic veneers on two front teeth; no amalgam fillings*

- *Mother’s dentistry before or during pregnancy*
 - She had amalgam fillings as a child and then 22 amalgam fillings as an adult; 14 amalgam fillings, four gold crowns and 4 porcelain over metal crowns at time of pregnancy*

- *Supplements taken at time of hair test or 3 to 6 months prior*
 - Vit D and iron*

- *Age, height, weight*
 - 17 years old; 5’4.5”; 140 lbs.*

- *Location: city and country*
 - Bolton, Massachusetts USA and Westport, Nova Scotia, Canada (2 month per year)*

- *Vaccines: What and when*
 - DTaP - 1996/1996/1997/1998/2001*
 - Hep B – 1996/1996/1997*
 - Hib – 1996/1996/1997/1997*

OPV – 1996/1996/1997
MMR – 1997/2001
varicella (2) 1998/2007
PCV7 – 2000
IPV – 2001
MCV 4 – 2007/2013
Tdap -2007
Flu IM – 2008/2009/2010/2011
Hep A – 2011/2013
Typhoid - 2011