

# Toxic & Essential Elements; Hair

TOXIC METALS			
	RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 68 <sup>th</sup> 95 <sup>th</sup>
Aluminum (Al)	5.3	< 12	
Antimony (Sb)	0.022	< 0.080	
Arsenic (As)	0.14	< 0.12	
Barium (Ba)	0.89	< 1.5	
Beryllium (Be)	< 0.01	< 0.020	
Bismuth (Bi)	< 0.002	< 2.0	
Cadmium (Cd)	< 0.009	< 0.065	
Lead (Pb)	0.47	< 1.5	
Mercury (Hg)	0.04	< 0.80	
Platinum (Pt)	< 0.003	< 0.005	
Thallium (Tl)	0.001	< 0.002	
Thorium (Th)	< 0.001	< 0.002	
Uranium (U)	0.038	< 0.060	
Nickel (Ni)	0.55	< 0.40	
Silver (Ag)	0.07	< 0.10	
Tin (Sn)	0.04	< 0.30	
Titanium (Ti)	0.35	< 0.70	
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)	597	375- 1100	
Magnesium (Mg)	110	40- 140	
Sodium (Na)	100	60- 400	
Potassium (K)	62	28- 160	
Copper (Cu)	9.2	11- 32	
Zinc (Zn)	140	120- 200	
Manganese (Mn)	0.11	0.15- 0.65	
Chromium (Cr)	0.45	0.40- 0.70	
Vanadium (V)	0.033	0.018- 0.065	
Molybdenum (Mo)	0.049	0.040- 0.080	
Boron (B)	7.4	0.40- 2.5	
Iodine (I)	0.24	0.25- 1.8	
Lithium (Li)	< 0.004	0.008- 0.030	
Phosphorus (P)	223	200- 300	
Selenium (Se)	2.4	0.80- 1.3	
Strontium (Sr)	1.7	1.0- 6.0	
Sulfur (S)	42600	41000- 47000	
Cobalt (Co)	0.003	0.006- 0.035	
Iron (Fe)	13	7.0- 16	
Germanium (Ge)	0.033	0.030- 0.040	
Rubidium (Rb)	0.067	0.030- 0.25	
Zirconium (Zr)	0.17	0.040- 1.0	

SPECIMEN DATA	RATIOS		
	ELEMENTS	RATIOS	RANGE
<b>COMMENTS:</b>  Date Collected: 11/7/2011      Sample Size: 0.196 g Date Received: 11/8/2011      Sample Type: Pubic Date Completed: 11/10/2011      Hair Color: Black Methodology: ICP/MS      Treatment: Shampoo: Dove Soap	Ca/Mg	5.43	4- 30
	Ca/P	2.68	0.8- 8
	Na/K	1.61	0.5- 10
	Zn/Cu	15.2	4- 20
	Zn/Cd	> 999	> 800

## **Health history for hair test 556**

### **1) What are your current symptoms and health history?**

I started getting quite sick about 10 years ago. I got extremely worse in the last 4 years after having 5-6 amalgam fillings replaced in 2007 without any precautions. Some of the current symptoms include - Severe jaw clenching ; Severe muscle stiffness/muscle tone throughout body (tetany type non-stop muscle contractions) ; Choking Spasms in neck ; Neuropathy/Extremely numb body/electric buzzing like or burning type sensations in legs ; Confusion/brain fog ; Hypoglycemia ; Significant fatigue ; Headaches ; throat gets very painful/sore every other day & voice is always hoarse ; Breathing problems ; Low saliva cortisol test readings (morning/afternoon) ; Seborrheic Dermatitis ; MRI's/CT Scan's/Exhaustive Medical testing all more or less normal with superspecialists doctors except hypoglycemia/neuropathy/saliva cortisol test.

### **2) Dental history (wisdom teeth removed? First root canal placed? Braces? First amalgam etc...)**

1st RC about 20 years ago (front top incisor). 8 or so amalgam fillings place 8 years ago. In 2007, 6 of these replaced with composite fillings without precautions. 2 more RC in last 3 years. 2 have crowns, 1 has post. 1 of the crowns, is a porcelain, fused to metal crown for the last top molar.

### **3) What dental work do you currently have in place? What part of the dental cleanup have you completed?**

3 RC with crowns/Post. 1 porcelain crown for top front incisor. 1 porcelain, fused to metal for last lower molar. 2 amalgam fillings. Amalgam visible under 6 composite fillings. Still trying to educate myself on mercury free dentistry & intend to get work done in the next month.

### **4) What dentistry did your mother have at any time before or during pregnancy?**

Info not available.

### **5) What vaccinations have you had and when (including flu and especially travel shots)?**

Besides usual child vaccinations, have had tetanus vaccinations post wound 2-3 times in last 15 years, also Hep-B vaccine. Can't think of anything else **right now**.

### **6) Supplements and medications (including dosages) taken at time of hair test, or for the 3-6 months before the sample was taken.**

#### **Vit C (recently incr. to 3g from 1g/day)**

Last 3-6 months - R-ALA 100mg 1x/day for neuropathy (stopped 2 weeks ago) ; Vit D3 5000 1x/day ; MultiVit 1 tab (stopped 1 month ago)

On & Off -

Vit B1 1/2 tab of 250 mg ; Neurpath (Vit B6/B12/Folic acid) - 1 tab

Just started last week - licorice, thorne ACE, omega3 (started today)

Did my first sauna the night before the hair test, without realising it might affect results. Have taken lots of different kind of supplements in the last 5-6 years.

**7) Other information you feel may be relevant?** I used to work out a lot & use lots of ala, chlorella + multi-vitamins etc for several years. Got extremely sick & lot of times bed ridden during last 2 years, upto about 2 weeks ago. Recently started ACE/Licorice/Sauna which have helped somewhat. Used to eat lots of cilantro/eggs/garlic/onions etc. etc. Following a low thiol diet for last 10 days. Still not sure about how much some recent improvement is from it because didn't feel relief until 1st sauna & taking licorice.

My jaw clenching is my worst symptom & gets very very painful. I take Extra strength tylenol for it. It's still about the same & is there 24/7.

### **8) What is your location - city & country (so that we can learn where certain toxins are more prevalent). Chicago, USA**