



SEX: Male  
AGE: 39

**Toxic & Essential Elements; Hair**

TOXIC METALS			
	RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 68 <sup>th</sup> 95 <sup>th</sup>
Aluminum (Al)	0.7	< 7.0	
Antimony (Sb)	< 0.01	< 0.066	
Arsenic (As)	0.040	< 0.080	
Barium (Ba)	0.16	< 1.0	
Beryllium (Be)	< 0.01	< 0.020	
Bismuth (Bi)	0.004	< 2.0	
Cadmium (Cd)	< 0.009	< 0.065	
Lead (Pb)	0.27	< 0.80	
Mercury (Hg)	1.2	< 0.80	
Platinum (Pt)	< 0.003	< 0.005	
Thallium (Tl)	< 0.001	< 0.002	
Thorium (Th)	< 0.001	< 0.002	
Uranium (U)	0.012	< 0.060	
Nickel (Ni)	0.07	< 0.20	
Silver (Ag)	0.02	< 0.08	
Tin (Sn)	0.04	< 0.30	
Titanium (Ti)	0.46	< 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)	1100	200- 750			
Magnesium (Mg)	50	25- 75			
Sodium (Na)	85	20- 180			
Potassium (K)	24	9- 80			
Copper (Cu)	10	11- 30			
Zinc (Zn)	230	130- 200			
Manganese (Mn)	0.05	0.08- 0.50			
Chromium (Cr)	0.32	0.40- 0.70			
Vanadium (V)	0.023	0.018- 0.065			
Molybdenum (Mo)	0.021	0.025- 0.060			
Boron (B)	0.43	0.40- 3.0			
Iodine (I)	0.19	0.25- 1.8			
Lithium (Li)	0.005	0.007- 0.020			
Phosphorus (P)	227	150- 220			
Selenium (Se)	0.69	0.70- 1.2			
Strontium (Sr)	1.5	0.30- 3.5			
Sulfur (S)	52500	44000- 50000			
Cobalt (Co)	0.004	0.004- 0.020			
Iron (Fe)	8.0	7.0- 16			
Germanium (Ge)	0.024	0.030- 0.040			
Rubidium (Rb)	0.032	0.011- 0.12			
Zirconium (Zr)	0.012	0.020- 0.44			

SPECIMEN DATA		RATIOS		
<b>COMMENTS:</b>		ELEMENTS	RATIOS	RANGE
Date Collected: 06/04/2014	Sample Size: 0.196 g	Ca/Mg	22	4- 30
Date Received: 06/06/2014	Sample Type: Head	Ca/P	4.85	0.8- 8
Date Completed: 06/07/2014	Hair Color: Brown	Na/K	3.54	0.5- 10
Methodology: ICP/MS	Treatment:	Zn/Cu	23	4- 20
	Shampoo:	Zn/Cd	> 999	> 800

### Toxic Elements

Results in µg/24 hours

Element	Reference Range	Reference Range**
Lead	1.3	<= 1.5
Mercury	0.89	<= 2.17
Aluminum	5.4	<= 25.2
Antimony	0.049	<= 0.144
Arsenic	17	<= 49
Barium	1.7	<= 5.5
Bismuth	<dl	<= 2.26
Cadmium	0.09	<= 0.63
Cesium		26.26 <= 10.10
Gadolinium	<dl	<= 0.019
Gallium	0.007	<= 0.031
Nickel	1.61	<= 4.41
Niobium	<dl	<= 0.086
Platinum	<dl	<= 0.038
Rubidium	3,358	<= 2,486
Thallium		0.746 <= 0.273
Thorium	<dl	<= 3.911
Tin	0.15	<= 2.25
Tungsten	0.090	<= 0.264
Uranium		0.131 <= 0.027

### Sulfur

Results in mg/24 hours

Element	Reference Range	Reference Range**
Sulfur*	1,112	353-1,567

\* Elevated sulfur may indicate the presence of a chelating agent.

### Creatinine Concentration

Urine Creatinine\* 100.56 23.00-205.00 mg/dL

### Collection Information

Urine Total Volume (in milliliters): 1,640.0

Length of Collection: (in hours) 24.0

Provocation Comment:

Information regarding pre- or post-provocation was not provided.

\*\*Reference ranges are representative of a healthy population under non-challenged or non-provoked conditions.

The performance characteristics of all assays have been verified by Genova Diagnostics, Inc. Unless otherwise noted with \* , the assay has not been cleared by the U.S. Food and Drug Administration.

## **Health history for hair test 1002**

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

Severe panic disorder (20+ years of this from 1993, almost completely recovered after amalgam removal in 2003/4, returned with a vengeance 2 months before hair test)

Fatigue (very difficult to work, have to take frequent breaks/naps, avoiding sulphur foods has helped)

Exercise intolerance (I can exercise but then am wiped out for the next week even with low intensity, short duration exercise)

Migraines, extreme fatigue, extreme anxiety, depression after eating any sulphur foods

Alcohol intolerance (from teenage years)

Eczema & allergies (from childhood, eczema managed via diet - gluten, casein, eggs worst offenders)

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

First amalgam placed at 10/11 years, several amalgams placed at 16 (last opportunity for free NHS dental work!) probably 10 in all

One very large amalgam in first lower left molar eventually led to the tooth cracking and dying, with a violent (dentist kneeling on chest!) extraction at 19/20 years

One root canal in second upper left molar at 25 years

Not sure on wisdom teeth - I don't have any but don't know if they were removed or have not come through

### **What dental work do you currently have in place? What part of the dental clean-up have you completed?**

All amalgam fillings removed in 2003. One (only) root canal still in place. One small amalgam tattoo in lower left gum at site of tooth extraction

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

'more than 5, less than 10' amalgams in place

### **What vaccinations have you had and when?**

Diphtheria/Tetanus/Polio triple vaccine (combined vaccine given 3 or 4 times @ 3 months, 6 months, 12 months and possibly once more)

Possibly Rubella

Tetanus boosters - around 6 years old and around 15 years old

No travel vaccinations or flu shots

### **Supplements and medications taken at time of hair test, or for the 3-6 months before the sample was taken?**

Mercola multi-vitamin daily (high quality, high dose multivitamin), ubiquinol 200mg/daily, krill oil 1000mg/daily, high potency probiotics - up until about 2 months before the hair test when I became

very ill, extremely sensitive to sulphur foods and stopped all supplements (I have since - post hair test - been able to reintroduce only vitamins C and E)

**What is your age, height and weight?**

Male, 40 years old, 173cm/5' 8", 70kg/155lbs

**Other information you feel may be relevant?**

I also had a 'dental amalgam plug' inserted into my eustachian tube (an air passage in the sinuses linking the nose to the middle ear) during surgery in 1994 or 95. I was unaware of the material at the time. This was removed during revision surgery in 2004 - the surgeon (not the original surgeon) informed me that it was 'dental amalgam' and that 'my body had reacted to it and the tube was severely inflamed' - I had by that time taken some blood tests showing mercury poisoning and allergy to mercury which prompted the removal of all my amalgam fillings in 2003. I have not yet undertaken any chelation as of summer 2014.

**What is your location – city & country**

London, UK