## HAIR ELEMENTS



**PATIENT: Number 337** 

SEX: Male AGE: 47

LOCATION: London, UK.

		POTENTIA	ALLY TOXIC ELEMENTS			
TOXIC ELEMENTS	RESULT	REFERENCE RANGE	68	PERCENTI	LE 95 <sup>th</sup>	
Aluminum	μg/g 1.2	< 7.0			93	
Antimony	0.12	< 0.066				
Arsenic	0.12	< 0.080				
Barium	0.000	< 1.0		·····		
Beryllium	< 0.03	< 0.020		······		
Bismuth	0.11	< 2.0		······		
Cadmium	0.012	< 0.065		·····		
Lead	0.37	< 0.80		·····		
Mercury	0.33	< 0.80		·····		
Platinum	< 0.003	< 0.005		·····		
Thallium	0.002	< 0.002		·····		
Thorium	< 0.001	< 0.002		·····		
Uranium	0.019	< 0.060				
Nickel	0.019	< 0.20				
Silver	0.03	< 0.08				
Tin	0.04	< 0.30				
Titanium	0.57	< 0.60				
Total Toxic Represen		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
Total Toxic Represen	itation	ESSENTIAL	AND OTHER ELEMENT	Te .		
	DECLUT		AND OTHER ELEMENT			
EL EMENTO	RESULT	REFERENCE	2.5 <sup>th</sup> 16 <sup>th</sup>	PERCENTII 50 <sup>th</sup>		4 <sup>th</sup> 97.5 <sup>th</sup>
ELEMENTS	μg/g	RANGE	2.5 16	50	84	4 97.5
Calcium	303	200- 750				
Magnesium	34	25- 75				
Sodium	98	20- 180				
Potassium	85	9- 80				
Copper	9.3	11- 30 130- 200				
Zinc	170	0.08- 0.50				
Manganese	0.04	1 () ()8- () 5()				
	0.57					
	0.57	0.40- 0.70				
Chromium Vanadium	0.073	0.40- 0.70 0.018- 0.065				
Vanadium Molybdenum	0.073 0.032	0.40- 0.70 0.018- 0.065 0.025- 0.060				
Vanadium Molybdenum Boron	0.073 0.032 6.1	0.40- 0.70 0.018- 0.065 0.025- 0.060 0.40- 3.0				
Vanadium Molybdenum Boron Iodine	0.073 0.032 6.1 0.23	0.40- 0.70 0.018- 0.065 0.025- 0.060 0.40- 3.0 0.25- 1.8				
Vanadium Molybdenum Boron Iodine Lithium	0.073 0.032 6.1 0.23 0.006	0.40- 0.70 0.018- 0.065 0.025- 0.060 0.40- 3.0 0.25- 1.8 0.007- 0.020				
Vanadium Molybdenum Boron Iodine Lithium Phosphorus	0.073 0.032 6.1 0.23 0.006 244	0.40- 0.70 0.018- 0.065 0.025- 0.060 0.40- 3.0 0.25- 1.8 0.007- 0.020 150- 220				
Vanadium Molybdenum Boron Iodine Lithium Phosphorus Selenium	0.073 0.032 6.1 0.23 0.006 244 0.85	0.40- 0.70 0.018- 0.065 0.025- 0.060 0.40- 3.0 0.25- 1.8 0.007- 0.020 150- 220 0.70- 1.2				
Vanadium Molybdenum Boron Iodine Lithium Phosphorus Selenium Strontium	0.073 0.032 6.1 0.23 0.006 244 0.85 0.25	0.40- 0.70 0.018- 0.065 0.025- 0.060 0.40- 3.0 0.25- 1.8 0.007- 0.020 150- 220 0.70- 1.2 0.30- 3.5				
Vanadium Molybdenum Boron Iodine Lithium Phosphorus Selenium Strontium Sulfur	0.073 0.032 6.1 0.23 0.006 244 0.85 0.25 48400	0.40- 0.70 0.018- 0.065 0.025- 0.060 0.40- 3.0 0.25- 1.8 0.007- 0.020 150- 220 0.70- 1.2 0.30- 3.5 44000- 50000				
Vanadium Molybdenum Boron Iodine Lithium Phosphorus Selenium Strontium Sulfur Cobalt	0.073 0.032 6.1 0.23 0.006 244 0.85 0.25 48400 0.004	0.40- 0.70 0.018- 0.065 0.025- 0.060 0.40- 3.0 0.25- 1.8 0.007- 0.020 150- 220 0.70- 1.2 0.30- 3.5 44000- 50000 0.004- 0.020				
Vanadium Molybdenum Boron Iodine Lithium Phosphorus Selenium Strontium Sulfur Cobalt Iron	0.073 0.032 6.1 0.23 0.006 244 0.85 0.25 48400 0.004 7.6	0.40- 0.70 0.018- 0.065 0.025- 0.060 0.40- 3.0 0.25- 1.8 0.007- 0.020 150- 220 0.70- 1.2 0.30- 3.5 44000- 50000 0.004- 0.020 7.0- 16				
Vanadium Molybdenum Boron Iodine Lithium Phosphorus Selenium Strontium Sulfur Cobalt Iron Germanium	0.073 0.032 6.1 0.23 0.006 244 0.85 0.25 48400 0.004 7.6 0.030	0.40- 0.70 0.018- 0.065 0.025- 0.060 0.40- 3.0 0.25- 1.8 0.007- 0.020 150- 220 0.70- 1.2 0.30- 3.5 44000- 50000 0.004- 0.020 7.0- 16 0.030- 0.040				
Vanadium Molybdenum Boron Iodine Lithium Phosphorus Selenium Strontium Sulfur Cobalt Iron Germanium Rubidium	0.073 0.032 6.1 0.23 0.006 244 0.85 0.25 48400 0.004 7.6 0.030 0.099	0.40- 0.70 0.018- 0.065 0.025- 0.060 0.40- 3.0 0.25- 1.8 0.007- 0.020 150- 220 0.70- 1.2 0.30- 3.5 44000- 50000 0.004- 0.020 7.0- 16 0.030- 0.040 0.011- 0.12				
Vanadium Molybdenum Boron Iodine Lithium Phosphorus Selenium Strontium Sulfur Cobalt Iron Germanium Rubidium	0.073 0.032 6.1 0.23 0.006 244 0.85 0.25 48400 0.004 7.6 0.030 0.099 0.27	0.40- 0.70 0.018- 0.065 0.025- 0.060 0.40- 3.0 0.25- 1.8 0.007- 0.020 150- 220 0.70- 1.2 0.30- 3.5 44000- 50000 0.004- 0.020 7.0- 16 0.030- 0.040 0.011- 0.12 0.020- 0.44				
Vanadium Molybdenum Boron Iodine Lithium Phosphorus Selenium Strontium Sulfur Cobalt Iron Germanium Rubidium Zirconium	0.073 0.032 6.1 0.23 0.006 244 0.85 0.25 48400 0.004 7.6 0.030 0.099 0.27	0.40- 0.70 0.018- 0.065 0.025- 0.060 0.40- 3.0 0.25- 1.8 0.007- 0.020 150- 220 0.70- 1.2 0.30- 3.5 44000- 50000 0.004- 0.020 7.0- 16 0.030- 0.040 0.011- 0.12				
Vanadium Molybdenum Boron Iodine Lithium Phosphorus Selenium Strontium Sulfur Cobalt Iron Germanium Rubidium Zirconium	0.073 0.032 6.1 0.23 0.006 244 0.85 0.25 48400 0.004 7.6 0.030 0.099 0.27	0.40- 0.70 0.018- 0.065 0.025- 0.060 0.40- 3.0 0.25- 1.8 0.007- 0.020 150- 220 0.70- 1.2 0.30- 3.5 44000- 50000 0.004- 0.020 7.0- 16 0.030- 0.040 0.011- 0.12 0.020- 0.44			RATIOS	
Vanadium Molybdenum Boron Iodine Lithium Phosphorus Selenium Strontium Sulfur Cobalt Iron Germanium Rubidium Zirconium	0.073 0.032 6.1 0.23 0.006 244 0.85 0.25 48400 0.004 7.6 0.030 0.099 0.27	0.40- 0.70 0.018- 0.065 0.025- 0.060 0.40- 3.0 0.25- 1.8 0.007- 0.020 150- 220 0.70- 1.2 0.30- 3.5 44000- 50000 0.004- 0.020 7.0- 16 0.030- 0.040 0.011- 0.12 0.020- 0.44	0.197 g			
Vanadium Molybdenum Boron Iodine Lithium Phosphorus Selenium Strontium Sulfur Cobalt Iron Germanium Rubidium Zirconium  COMMENTS: Date Collected: 2,	0.073 0.032 6.1 0.23 0.006 244 0.85 0.25 48400 0.004 7.6 0.030 0.099 0.27	0.40- 0.70 0.018- 0.065 0.025- 0.060 0.40- 3.0 0.25- 1.8 0.007- 0.020 150- 220 0.70- 1.2 0.30- 3.5 44000- 50000 0.004- 0.020 7.0- 16 0.030- 0.040 0.011- 0.12 0.020- 0.44  PECIMEN DATA			RATIOS	EXPECTED
Vanadium Molybdenum Boron Iodine Lithium Phosphorus Selenium Strontium Sulfur Cobalt Iron Germanium Rubidium Zirconium  COMMENTS: Date Collected: 2,	0.073 0.032 6.1 0.23 0.006 244 0.85 0.25 48400 0.004 7.6 0.030 0.099 0.27	0.40- 0.70 0.018- 0.065 0.025- 0.060 0.40- 3.0 0.25- 1.8 0.007- 0.020 150- 220 0.70- 1.2 0.30- 3.5 44000- 50000 0.004- 0.020 7.0- 16 0.030- 0.040 0.011- 0.12 0.020- 0.44  PECIMEN DATA  Sample Size:	0.197 g	ELEMENTS	RATIOS	EXPECTED RANGE
Vanadium Molybdenum Boron Iodine Lithium Phosphorus Selenium Strontium Sulfur Cobalt Iron Germanium Rubidium Zirconium  COMMENTS: Date Collected: 2, Date Received: 2,	0.073 0.032 6.1 0.23 0.006 244 0.85 0.25 48400 0.004 7.6 0.030 0.099 0.27	0.40- 0.70 0.018- 0.065 0.025- 0.060 0.40- 3.0 0.25- 1.8 0.007- 0.020 150- 220 0.70- 1.2 0.30- 3.5 44000- 50000 0.004- 0.020 7.0- 16 0.030- 0.040 0.011- 0.12 0.020- 0.44  PECIMEN DATA  Sample Size: Sample Type:	0.197 g Head	ELEMENTS Ca/Mg	RATIOS RATIOS 8.91	EXPECTED RANGE 4- 30
Vanadium Molybdenum Boron Iodine Lithium Phosphorus Selenium Strontium Sulfur Cobalt Iron Germanium Rubidium Zirconium  COMMENTS: Date Collected: 2, Date Completed: 2, Client Reference:	0.073 0.032 6.1 0.23 0.006 244 0.85 0.25 48400 0.004 7.6 0.030 0.099 0.27	0.40- 0.70 0.018- 0.065 0.025- 0.060 0.40- 3.0 0.25- 1.8 0.007- 0.020 150- 220 0.70- 1.2 0.30- 3.5 44000- 50000 0.004- 0.020 7.0- 16 0.030- 0.040 0.011- 0.12 0.020- 0.44  PECIMEN DATA  Sample Size: Sample Type: Hair Color:	0.197 g Head	ELEMENTS Ca/Mg Ca/P	RATIOS  RATIOS  8.91  1.24	EXPECTED RANGE 4- 30 0.8- 8



SEX: Male AGE: 52

### Toxic & Essential Elements; Hair

TOXIC METALS					
		RESULT μg/g	REFERENCE INTERVAL	PERCENTILE 68 <sup>th</sup> 95 <sup>th</sup>	
Aluminum	(AI)	1.2	< 7.0		
Antimony	(Sb)	< 0.01	< 0.066		
Arsenic	(As)	0.030	< 0.080		
Barium	(Ba)	0.23	< 1.0		
Beryllium	(Be)	< 0.01	< 0.020		
Bismuth	(Bi)	0.44	< 2.0		
Cadmium	(Cd)	0.009	< 0.065	•	
Lead	(Pb)	0.24	< 0.80		
Mercury	(Hg)	0.29	< 0.80		
Platinum	(Pt)	< 0.003	< 0.005		
Thallium	(TI)	< 0.001	< 0.002		
Thorium	(Th)	< 0.001	< 0.002		
Uranium	(U)	0.028	< 0.060		
Nickel	(Ni)	0.20	< 0.20		
Silver	(Ag)	0.09	< 0.08		
Tin	(Sn)	0.03	< 0.30	•	
Titanium	(Ti)	0.36	< 0.60		
Total Toxic Representation	n	•	•		

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)	1190	200- 750			
Magnesium (Mg)	40	25- 75			
Sodium (Na)	100	20- 180			
Potassium (K)	21	9- 80			
Copper (Cu)	39	11- 30			
Zinc (Zn)	190	130- 200			
Manganese (Mn)	0.05	0.08- 0.50			
Chromium (Cr)	0.37	0.40- 0.70			
Vanadium (V)	0.031	0.018- 0.065	•		
Molybdenum (Mo)	0.088	0.025- 0.060			
Boron (B)	0.41	0.40- 3.0			
lodine (I)	1.7	0.25- 1.8			
Lithium (Li)	< 0.004	0.007- 0.020			
Phosphorus (P)	216	150- 220			
Selenium (Se)	1.0	0.70- 1.2			
Strontium (Sr)	1.5	0.30- 3.5			
Sulfur (S)	48100	44000- 50000			
Cobalt (Co)	0.005	0.004- 0.020			
Iron (Fe)	7.8	7.0- 16			
Germanium (Ge)	0.024	0.030- 0.040			
Rubidium (Rb)	0.022	0.011- 0.12			
Zirconium (Zr)	0.14	0.020- 0.44			

SPECIMEN DATA			RATIOS		
COMMENTS:		ELEMENTS	RATIOS	RANGE	
		Ca/Mg	29.8	4- 30	
Date Collected: 01/25/2015	Sample Size: 0.197 g	Ca/P	5.51	0.8- 8	
Date Received: 01/29/2015	Sample Type: <b>Head</b>	Na/K	4.76	0.5- 10	
Date Completed: 01/31/2015	Hair Color: Brown	Zn/Cu	4.87	4- 20	
Methodology: ICP/MS	Treatment:	Zn/Cd	> 999	> 800	
	Shampoo: Pantene				



### HAIR TEST 337 - follow-up 3rd hair test

SEX: Male AGE: 55

## Toxic & Essential Elements; Hair

TOXIC METALS					
		RESULT μg/g	REFERENCE INTERVAL	PERCENTILE 68 <sup>th</sup> 95 <sup>th</sup>	
Aluminum	(AI)	1.5	< 7.0		
Antimony	(Sb)	0.015	< 0.066		
Arsenic	(As)	0.047	< 0.080		
Barium	(Ba)	0.08	< 1.0		
Beryllium	(Be)	< 0.01	< 0.020		
Bismuth	(Bi)	0.016	< 2.0	•	
Cadmium	(Cd)	< 0.009	< 0.065		
Lead	(Pb)	0.21	< 0.80		
Mercury	(Hg)	0.33	< 0.80		
Platinum	(Pt)	< 0.003	< 0.005		
Thallium	(TI)	< 0.001	< 0.002		
Thorium	(Th)	< 0.001	< 0.002		
Uranium	(U)	0.018	< 0.060		
Nickel	(Ni)	0.04	< 0.20		
Silver	(Ag)	0.02	< 0.08		
Tin	(Sn)	0.03	< 0.30	•	
Titanium	(Ti)	0.39	< 0.60		
Total Toxic Represent	ation				

ESSENTIAL AND OTHER ELEMENTS					
		RESULT	REFERENCE	PERCENTILE	
		μg/g	INTERVAL	2.5 <sup>th</sup> 16 <sup>th</sup>	50 <sup>th</sup> 84 <sup>th</sup> 97.5 <sup>th</sup>
Calcium	(Ca)	282	200- 750		
Magnesium	(Mg)	29	25- 75		
Sodium	(Na)	50	20- 180		
Potassium	(K)	76	9- 80		
Copper	(Cu)	12	11- 30		
Zinc	(Zn)	150	130- 200		
Manganese	(Mn)	0.04	0.08- 0.50		
Chromium	(Cr)	0.45	0.40- 0.70		
Vanadium	(V)	0.028	0.018- 0.065		
Molybdenum	(Mo)	0.065	0.025- 0.060		
Boron	(B)	2.8	0.40- 3.0		
Iodine	(I)	2.4	0.25- 1.8		
Lithium	(Li)	0.004	0.007- 0.020		
Phosphorus	(P)	213	150- 220		
Selenium	(Se)	1.0	0.70- 1.2		
Strontium	(Sr)	0.33	0.30- 3.5		
Sulfur	(S)	48200	44000- 50000		
Cobalt	(Co)	0.002	0.004- 0.020		
Iron	(Fe)	5.8	7.0- 16		
Germanium	(Ge)	0.035	0.030- 0.040		•
Rubidium	(Rb)	0.088	0.011- 0.12		
Zirconium	(Zr)	0.57	0.020- 0.44		

SPECIMEN DATA			RATIOS		
COMMENTS:		ELEMENTS	RATIOS	RANGE	
		Ca/Mg	9.72	4- 30	
Date Collected: 07/31/2017	Sample Size: 0.201 g	Ca/P	1.32	0.8- 8	
Date Received: 08/04/2017	Sample Type: Head	Na/K	0.658	0.5- 10	
Date Completed: 08/07/2017	Hair Color: Brown	Zn/Cu	12.5	4- 20	
Methodology: ICP/MS	Treatment:	Zn/Cd	> 999	> 800	
	Shampoo: Pantene				

### Health history for hair test 337

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

Fatigue and chronic (but minor) aches and pains in upper torso with poor recovery following physical exertion.

Persistent (again minor) depression and anxiety.

Suffer from hayfever in Spring/Summer which seems to be getting worse.

Had asthma as a child and have occasional recurrences around hayfever time.

Cannot tolerate alcohol.

Frequently get cold feet (even in the summer).

Began getting palpitations about a year ago but eased by taking magnesium.

Recently been experiencing gall bladder discomfort.

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

Had 10 almalgam fillings between the ages of 13 to 25.

Wisdom teeth removed at age 32

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

Have recently had 4 almagams repaired/replaced with composite fillings Still have 6 almalgams in place.

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

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

Usual childhood vaccines including polio, tetanus, diptheria. Maybe some others. Top Up tetanus in 1994.

Flu shot in Dec 2007.

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

Multi Vitamin (Quest One a day), 2 \* Omega 3 (360 EPA 240 DHA), Magnesium 500mg, Gingko Biloba 60mg

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

47, 5ft9in, 75kg

### Other information you feel may be relevant?

Three of my 5 siblings have had chronic fatigue to varying degrees.

### What is your location - city & country

Originally Melbourne, Australia but last 8 years London, England.

### Health history for hair test 337 - follow-up Jan 2015

No counting rules met, first test met counting rule #4.

Related comments/context for new hair test:

142 rounds completed. Chelation started March 2011 - DMSA only for 3 months following 12 amalgams removed. Using both DMSA 25mg/ALA 25mg from August 2011 (cycle 3 days on/4 days off. dosing frequency 3 hourly during day/4 hourly at night). Good progress but still a little way to go - occasional fatigue, bile flow, digestion issues and some high thiol symptoms.

Health history for hair test 337 – follow-up August 2017

Hair Test #3 done at round 196.

Switched from DMSA to DMPS at round 190 due to candida flare ups.

Currently GallBladder/liver and low bile problems so having to build back up slowly on DMPS/ALA