

HAIR ELEMENTS



PATIENT: Number 497
SEX: Male
AGE: 45

POTENTIALLY TOXIC ELEMENTS				
TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 th	95 th
Aluminum	1.6	< 7.0		
Antimony	0.026	< 0.066		
Arsenic	0.072	< 0.080		
Barium	0.44	< 1.0		
Beryllium	< 0.01	< 0.020		
Bismuth	0.051	< 2.0		
Cadmium	0.009	< 0.065		
Lead	0.20	< 0.80		
Mercury	0.18	< 0.80		
Platinum	< 0.003	< 0.005		
Thallium	< 0.001	< 0.002		
Thorium	< 0.001	< 0.002		
Uranium	0.013	< 0.060		
Nickel	0.12	< 0.20		
Silver	0.05	< 0.08		
Tin	0.05	< 0.30		
Titanium	0.38	< 0.60		
Total Toxic Representation				

ESSENTIAL AND OTHER ELEMENTS							
ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE				
			2.5 th	16 th	50 th	84 th	97.5 th
Calcium	171	200- 750					
Magnesium	110	25- 75					
Sodium	110	20- 180					
Potassium	200	9- 80					
Copper	11	11- 30					
Zinc	190	130- 200					
Manganese	0.14	0.08- 0.50					
Chromium	0.43	0.40- 0.70					
Vanadium	0.048	0.018- 0.065					
Molybdenum	0.10	0.025- 0.060					
Boron	3.0	0.40- 3.0					
Iodine	24	0.25- 1.8					
Lithium	0.014	0.007- 0.020					
Phosphorus	179	150- 220					
Selenium	0.88	0.70- 1.2					
Strontium	0.69	0.30- 3.5					
Sulfur	47000	44000- 50000					
Cobalt	0.003	0.004- 0.020					
Iron	10	7.0- 16					
Germanium	0.029	0.030- 0.040					
Rubidium	0.13	0.011- 0.12					
Zirconium	0.009	0.020- 0.44					

SPECIMEN DATA				RATIOS		
COMMENTS:				ELEMENTS	RATIOS	EXPECTED RANGE
Date Collected: 11/4/2010	Sample Size: 0.201 g			Ca/Mg	1.55	4- 30
Date Received: 11/12/2010	Sample Type: Head			Ca/P	0.955	0.8- 8
Date Completed: 11/16/2010	Hair Color: Brown			Na/K	0.55	0.5- 10
Client Reference:	Treatment:			Zn/Cu	17.3	4- 20
Methodology: ICP-MS	Shampoo: Jj Baby			Zn/Cd	> 999	> 800

V010.08



PATIENT: Number 497 follow-up
 SEX: Male
 AGE: 47

Toxic & Essential Elements; Hair

TOXIC METALS			
	RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 68 th 95 th
Aluminum (Al)	2.0	< 7.0	
Antimony (Sb)	0.012	< 0.066	
Arsenic (As)	0.043	< 0.080	
Barium (Ba)	0.28	< 1.0	
Beryllium (Be)	< 0.01	< 0.020	
Bismuth (Bi)	0.008	< 2.0	
Cadmium (Cd)	< 0.009	< 0.065	
Lead (Pb)	0.17	< 0.80	
Mercury (Hg)	0.27	< 0.80	
Platinum (Pt)	< 0.003	< 0.005	
Thallium (Tl)	< 0.001	< 0.002	
Thorium (Th)	< 0.001	< 0.002	
Uranium (U)	0.010	< 0.060	
Nickel (Ni)	0.06	< 0.20	
Silver (Ag)	0.04	< 0.08	
Tin (Sn)	0.03	< 0.30	
Titanium (Ti)	0.33	< 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)	250	200- 750			
Magnesium (Mg)	120	25- 75			
Sodium (Na)	48	20- 180			
Potassium (K)	39	9- 80			
Copper (Cu)	9.7	11- 30			
Zinc (Zn)	180	130- 200			
Manganese (Mn)	0.10	0.08- 0.50			
Chromium (Cr)	0.47	0.40- 0.70			
Vanadium (V)	0.038	0.018- 0.065			
Molybdenum (Mo)	0.034	0.025- 0.060			
Boron (B)	0.54	0.40- 3.0			
Iodine (I)	2.2	0.25- 1.8			
Lithium (Li)	0.005	0.007- 0.020			
Phosphorus (P)	197	150- 220			
Selenium (Se)	1.0	0.70- 1.2			
Strontium (Sr)	0.33	0.30- 3.5			
Sulfur (S)	51200	44000- 50000			
Cobalt (Co)	0.005	0.004- 0.020			
Iron (Fe)	5.8	7.0- 16			
Germanium (Ge)	0.036	0.030- 0.040			
Rubidium (Rb)	0.040	0.011- 0.12			
Zirconium (Zr)	0.023	0.020- 0.44			

SPECIMEN DATA		RATIOS		
COMMENTS:		ELEMENTS	RATIOS	RANGE
Date Collected: 5/12/2012	Sample Size: 0.197 g	Ca/Mg	2.08	4- 30
Date Received: 5/15/2012	Sample Type: Head	Ca/P	1.27	0.8- 8
Date Completed: 5/16/2012	Hair Color: Brown	Na/K	1.23	0.5- 10
Methodology: ICP/MS	Treatment:	Zn/Cu	18.6	4- 20
	Shampoo: Jj Baby	Zn/Cd	> 999	> 800

Health history for hair test 497

Current symptoms are fatigue, brain fog, depression, low confidence.

First amalgam at around 8 years old, had around 20 in total (including refills), had 16 removed Aug 2010. Now have composites and still have on bridge which is 95% Silver and Palladium.

Mother had amalgams when I was born.

Had numerous shots when travelling for work, unfortunately I can't remember which ones.

Taking 1-2gms of VitC, 4 drops of Lugols, 400mcg of Selenium, B50, 400IU of VitE and a general 100% RDA multivit/min at the time of the test.

I'm male, 5ft 8in and 155lbs.

I work in industry and have previously done a lot of soldering before the removal of lead.

I live in the country.

Health history for hair test 497 follow-up

- 1) Current symptoms are lack of energy and poor mental concentration. Depression, aching joints and headaches. General apathy and indifference to everything.
- 2) First amalgam placed about 40 years ago. When I had them removed I had 16, but many of these had been placed more than once.
- 3) Had all 16 amalgams removed 1.5 years ago.
- 4) Mother had some amalgams at the time of my birth (not sure how many)
- 5) I can't remember all the shots I have had, but needed some for work trips to China and Brazil I believe.
- 6) Supplements taken are 25 mg DMSA and ALA (3 hour dosing for 3 day rounds), standard 100% RDA multivitamin, 3 grams vitamin C, 800 mcg Selenium, 800 IU vitamin E, 0.5 teaspoon of sea salt, 2000 mcg iodine, 600 mg NAC.
- 7) I am 46, five foot eight inches tall and approximately 155lbs in weight.
- 8) I work in industry and have been exposed to lead (through lead solder) and perhaps mercury (through mercury manometers).
- 9) I live in Derby, UK.