



PATIENT: Number 852
 SEX: Male
 AGE: 40

Toxic & Essential Elements; Hair

TOXIC METALS			
	RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 68 th 95 th
Aluminum (Al)	11	< 7.0	
Antimony (Sb)	0.012	< 0.066	
Arsenic (As)	0.039	< 0.080	
Barium (Ba)	0.63	< 1.0	
Beryllium (Be)	< 0.01	< 0.020	
Bismuth (Bi)	0.086	< 2.0	
Cadmium (Cd)	< 0.009	< 0.065	
Lead (Pb)	0.14	< 0.80	
Mercury (Hg)	0.72	< 0.80	
Platinum (Pt)	< 0.003	< 0.005	
Thallium (Tl)	0.001	< 0.002	
Thorium (Th)	< 0.001	< 0.002	
Uranium (U)	0.066	< 0.060	
Nickel (Ni)	0.07	< 0.20	
Silver (Ag)	0.01	< 0.08	
Tin (Sn)	0.15	< 0.30	
Titanium (Ti)	0.25	< 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)	820	200- 750			
Magnesium (Mg)	58	25- 75			
Sodium (Na)	44	20- 180			
Potassium (K)	16	9- 80			
Copper (Cu)	16	11- 30			
Zinc (Zn)	170	130- 200			
Manganese (Mn)	0.07	0.08- 0.50			
Chromium (Cr)	0.32	0.40- 0.70			
Vanadium (V)	0.020	0.018- 0.065			
Molybdenum (Mo)	0.030	0.025- 0.060			
Boron (B)	7.6	0.40- 3.0			
Iodine (I)	0.96	0.25- 1.8			
Lithium (Li)	< 0.004	0.007- 0.020			
Phosphorus (P)	178	150- 220			
Selenium (Se)	0.70	0.70- 1.2			
Strontium (Sr)	1.6	0.30- 3.5			
Sulfur (S)	43100	44000- 50000			
Cobalt (Co)	0.008	0.004- 0.020			
Iron (Fe)	8.2	7.0- 16			
Germanium (Ge)	0.020	0.030- 0.040			
Rubidium (Rb)	0.023	0.011- 0.12			
Zirconium (Zr)	0.053	0.020- 0.44			

SPECIMEN DATA		RATIOS	
COMMENTS:		ELEMENTS	RATIOS
Date Collected: 09/09/2013		Ca/Mg	14.1
Date Received: 09/10/2013		Ca/P	4.61
Date Completed: 09/13/2013		Na/K	2.75
Methodology: ICP/MS		Zn/Cu	10.6
Sample Size: 0.2 g	Sample Type: Head	Zn/Cd	> 999
Hair Color: Black	Treatment:		
Shampoo: Neutrogena T Gel			
		RANGE	
		4- 30	
		0.8- 8	
		0.5- 10	
		4- 20	
		> 800	



Follow-up test
SEX: Male
AGE: 41

Toxic & Essential Elements; Hair

TOXIC METALS			
	RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 68 th 95 th
Aluminum (Al)	11	< 7.0	
Antimony (Sb)	0.015	< 0.066	
Arsenic (As)	0.015	< 0.080	
Barium (Ba)	0.54	< 1.0	
Beryllium (Be)	< 0.01	< 0.020	
Bismuth (Bi)	0.10	< 2.0	
Cadmium (Cd)	< 0.009	< 0.065	
Lead (Pb)	0.28	< 0.80	
Mercury (Hg)	0.05	< 0.80	
Platinum (Pt)	< 0.003	< 0.005	
Thallium (Tl)	0.001	< 0.002	
Thorium (Th)	< 0.001	< 0.002	
Uranium (U)	0.067	< 0.060	
Nickel (Ni)	0.06	< 0.20	
Silver (Ag)	0.02	< 0.08	
Tin (Sn)	0.07	< 0.30	
Titanium (Ti)	0.31	< 0.60	
Total Toxic Representation			

Deranged Mineral Trans. Counting Rules:
1 (above average): 7-8 (negative, <6)
2 (below average): 14 (negative, <6)
3 (extreme): 2-3 (negative, >3)
4 (green/white): 14-15 (negative, <12)
5 (# that are 1 off): 0-2 (ambiguous, >1)
Conclusion: Uncertain

ESSENTIAL AND OTHER ELEMENTS					
	RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 2.5 th 16 th 50 th 84 th 97.5 th		
Calcium (Ca)	842	200- 750			
Magnesium (Mg)	66	25- 75			
Sodium (Na)	150	20- 180			
Potassium (K)	61	9- 80			
Copper (Cu)	15	11- 30			
Zinc (Zn)	160	130- 200			
Manganese (Mn)	0.08	0.08- 0.50			
Chromium (Cr)	0.36	0.40- 0.70			
Vanadium (V)	0.017	0.018- 0.065			
Molybdenum (Mo)	0.022	0.025- 0.060			
Boron (B)	9.7	0.40- 3.0			
Iodine (I)	0.35	0.25- 1.8			
Lithium (Li)	0.12	0.007- 0.020			
Phosphorus (P)	184	150- 220			
Selenium (Se)	0.70	0.70- 1.2			
Strontium (Sr)	8.6	0.30- 3.5			
Sulfur (S)	47800	44000- 50000			
Cobalt (Co)	0.007	0.004- 0.020			
Iron (Fe)	7.2	7.0- 16			
Germanium (Ge)	0.029	0.030- 0.040			
Rubidium (Rb)	0.088	0.011- 0.12			
Zirconium (Zr)	0.035	0.020- 0.44			

SPECIMEN DATA		RATIOS	
COMMENTS:		ELEMENTS	RATIOS
Date Collected: 08/06/2014	Sample Size: 0.198 g	Ca/Mg	12.8
Date Received: 08/14/2014	Sample Type: Head	Ca/P	4.58
Date Completed: 08/15/2014	Hair Color: Black	Na/K	2.46
Methodology: ICP/MS	Treatment:	Zn/Cu	10.7
	Shampoo: Neutrogena	Zn/Cd	> 999
		RANGE	
			4- 30
			0.8- 8
			0.5- 10
			4- 20
			> 800



HAIR TEST 852C
SEX: Male
AGE: 42

Toxic & Essential Elements; Hair

TOXIC METALS				
		RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 68 th 95 th
Aluminum (Al)		13	< 7.0	
Antimony (Sb)		< 0.01	< 0.066	
Arsenic (As)		0.026	< 0.080	
Barium (Ba)		0.66	< 1.0	
Beryllium (Be)		< 0.01	< 0.020	
Bismuth (Bi)		0.077	< 2.0	
Cadmium (Cd)		< 0.009	< 0.065	
Lead (Pb)		0.29	< 0.80	
Mercury (Hg)		0.63	< 0.80	
Platinum (Pt)		< 0.003	< 0.005	
Thallium (Tl)		0.001	< 0.002	
Thorium (Th)		< 0.001	< 0.002	
Uranium (U)		0.043	< 0.060	
Nickel (Ni)		0.06	< 0.20	
Silver (Ag)		0.01	< 0.08	
Tin (Sn)		0.06	< 0.30	
Titanium (Ti)		0.32	< 0.60	
Total Toxic Representation				

Deranged Mineral Trans. Counting Rules:
1 (above average): 10 (negative, <6)
2 (below average): 10 (negative, <6)
3 (extreme): 1 (negative, >3)
4 (green/white): 16 (negative, <12)
5 (# that are 1 off): 0 (negative, >1)
CONCLUSION: UNCERTAIN

ESSENTIAL AND OTHER ELEMENTS					
		RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 2.5 th 16 th 50 th 84 th 97.5 th	
Calcium (Ca)		793	200– 750		
Magnesium (Mg)		58	25– 75		
Sodium (Na)		78	20– 180		
Potassium (K)		38	9– 80		
Copper (Cu)		15	11– 30		
Zinc (Zn)		150	130– 200		
Manganese (Mn)		0.10	0.08– 0.50		
Chromium (Cr)		0.39	0.40– 0.70		
Vanadium (V)		0.028	0.018– 0.065		
Molybdenum (Mo)		0.033	0.025– 0.060		
Boron (B)		17	0.40– 3.0		
Iodine (I)		0.66	0.25– 1.8		
Lithium (Li)		0.029	0.007– 0.020		
Phosphorus (P)		177	150– 220		
Selenium (Se)		1.1	0.70– 1.2		
Strontium (Sr)		1.7	0.30– 3.5		
Sulfur (S)		45400	44000– 50000		
Cobalt (Co)		0.010	0.004– 0.020		
Iron (Fe)		5.8	7.0– 16		
Germanium (Ge)		0.027	0.030– 0.040		
Rubidium (Rb)		0.032	0.011– 0.12		
Zirconium (Zr)		0.034	0.020– 0.44		

SPECIMEN DATA		RATIOS	
COMMENTS:		ELEMENTS	RATIOS
Date Collected: 08/04/2015	Sample Size: 0.196 g	Ca/Mg	13.7
Date Received: 08/10/2015	Sample Type: Head	Ca/P	4.48
Date Completed: 08/14/2015	Hair Color: Brown	Na/K	2.05
Methodology: ICP/MS	Treatment:	Zn/Cu	10
	Shampoo: Neutrogena	Zn/Cd	> 999
		RANGE	
			4– 30
			0.8– 8
			0.5– 10
			4– 20
			> 800

Hair Test 852C

This is my third test, about 1 year after the second. In between, I did 20 rounds of chelation, most at 18.8mg ALA every 3 hrs and 25mg DMPS every 6 hrs. I stopped in January for scheduling reasons and plan to restart soon. My symptoms have undergone a familiar fluctuation in the interim — sometimes they seem a lot better and I wonder whether I've finally found the magic combination of diet and supplements, and then other times they seem as bad as they've ever been. The major symptoms are poor mental clarity, bouts of confusion, fatigue, drowsiness, poor GI function, and muscular problems (frequent injury and very delayed healing).

Supplements and medications taken regularly in the 3 months prior to the hair test:

Vitamin C 2000 mg/day

Vitamin D 4000 IU/day

Vitamin E 1800 IU/day

Vitamin K

Vitamin A

B vitamins (incl. methylfolate and methylcobalamin)

Iron bisglycinate (18 mg/day)

Lithium orotate (5mg twice per week)

Butyrate

Multimineral

Mg Malate

Digestive enzymes

Various probiotics (Florastor, Probiotic Pearls, LactoPrime Plus, Therbiotic Complete)

GABA

Hair Test 852 follow-up

This was my second hair test, done one year after the first (#852). In the interim, I did 32 rounds of chelation following the Cutler protocol. Most were 3-4 days. I started with DMSA, then added ALA, and then, after a few months, switched the DMSA out for DMPS. By the end of May 2014 I was up to 18.8mg ALA every 3 hrs and 25 mg of DMPS every 6 hours.

I seemed to tolerate the chelation pretty well, usually feeling a bit more tired on the first day, then better overall on the second day, then more fatigued on the third and into the fourth. Several times, I got a lot of mouth sores, and one time, after increasing ALA to 25mg, I got a pretty strong rash over large areas of my arms and legs, which lasted about a week.

I did not notice a general change in overall symptoms one way or the other over the course of the chelation. In early June, I stopped chelation after receiving a diagnosis of growth hormone deficiency disorder. The treatment was exogenous hormone injections, and I wanted to try it alone. I did this hair test in August, after having not chelated for a couple of months.

I restarted chelation in September 2014. I didn't notice much change with the the hormone injections, and eventually discontinued them in December.

At the time of this hair test, I was taking these supplements and medications:

- Human growth hormone
- Natural dessicated thyroid
- Hydrocortisone
- Betaine HCl
- Vitamin D (4000 IU/day)
- Vitamin E (1000 IU/day)
- Vitamin C (3000 mg/day)
- Iron (30 mg/day)
- Lithium orotate (5mg/day)
- Multimineral supplement
- Fish oil
- Various probiotics
- Taurine

Health history for hair test 852

- 1. What are your current symptoms and health history?** Current main symptoms are fatigue, brain fog (frequent but episodic, lasting roughly 2-4 hours at a time, usually triggered while eating; no clear correlations with particular foods), easily obtained and slow-healing minor muscle injuries. Health problems increased notably about 14 years ago; thought it was due to mold infestation or NSAID use. Anxiety and IBS-D were predominant symptoms, although recent treatments have improved these (fecal microbiota transplants and the specific carbohydrate diet). Lots of other minor symptoms, like sleep disturbance, excessive hunger, hypoglycemia, etc., but these have been less of a problem that past 5 years or so.

Packed erythrocyte tests showed very elevated Hg levels in 2003, and, after having my amalgam fillings removed, I underwent several rounds of chelation, using EDTA, DMSA, and peat. Those levels slowly came down, and in 2007 a serum test showed normal levels. In July 2013, a packed erythrocyte test showed Hg levels still outside the reference range, just a little higher than where they were in 2007. Looking more closely at those tests now, it appears the normal results were all serum plasma measurements, not erythrocyte. In retrospect, the chelations removed some of the blood mercury, but none of the brain or organ stores (I didn't know about the Cutler protocol until recently and never used ALA).

- 2. Dental history (Wisdom teeth removed and when? Any other extractions. First root canal placed? Braces? First amalgam etc...)** No extractions (wisdom teeth or other). I had one root canal as a teenager. No braces. I don't remember when I had my first amalgam filling, but it was likely in my early teens. By the time I had them replaced at age 30, I had several large amalgam fillings on at least three teeth. They were all replaced around the same time (10 years ago) by my current dentist. I don't know if he took any special precautions during the removal; I doubt he did.

I currently have 5 crowns. 2 were done earlier this year and are all porcelain. 2 were done within the past five years and have metal bases, but I'm certain there is no amalgam underneath. The remaining crown is over the root canal, and I do not know for certain what kind of filling is underneath it. My dentist thinks it is highly unlikely that there is amalgam underneath it, since there is a post in the tooth and it would be difficult to seat an filling amalgam. He also can't see any sign of amalgam on the x-ray. I've decided not to have this crown opened up at this time.

- 3. What dental work do you currently have in place? What part of the dental clean-up have you completed?** See #2.

- 4. What dentistry did your mother have at any time before or during pregnancy?** She had plenty of amalgam fillings, from an early age.

- 5. What vaccinations have you had and when (including flu and especially travel shots)?** The standard ones given to kids in the U.S. As an adult, I've had tetanus, hepatitis, pertussis, and one or two flu vaccinations.

- 6. Supplements and medications (including dosages) taken at time of hair test, or for the 3-6 months before the sample was taken?** Iron, multi-mineral, turmeric, florasol, vitamin C, vitamin D.

- 7. What is your age, height and weight?** 40 yrs old, 5' 6", 125 lbs.

- 8. Other information you feel may be relevant?**

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