

# HAIR ELEMENTS



**PATIENT: Number 455**  
**SEX: Female**  
**AGE: 65**  
**LOCATION: Rohnert Park, CA, USA**

POTENTIALLY TOXIC ELEMENTS				
TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 <sup>th</sup>	95 <sup>th</sup>
Aluminum	6.0	< 12		
Antimony	0.017	< 0.060		
Arsenic	0.054	< 0.090		
Barium	10	< 2.0		
Beryllium	< 0.01	< 0.020		
Bismuth	0.047	< 2.0		
Cadmium	0.055	< 0.050		
Lead	0.12	< 1.0		
Mercury	0.24	< 0.80		
Platinum	< 0.003	< 0.005		
Thallium	0.001	< 0.002		
Thorium	< 0.001	< 0.002		
Uranium	0.004	< 0.060		
Nickel	0.19	< 0.40		
Silver	0.02	< 0.10		
Tin	0.04	< 0.30		
Titanium	2.6	< 1.3		
Total Toxic Representation				

ESSENTIAL AND OTHER ELEMENTS							
ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE				
			2.5 <sup>th</sup>	16 <sup>th</sup>	50 <sup>th</sup>	84 <sup>th</sup>	97.5 <sup>th</sup>
Calcium	2400	475- 1500					
Magnesium	390	45- 180					
Sodium	350	80- 450					
Potassium	99	28- 160					
Copper	8.1	11- 30					
Zinc	140	130- 200					
Manganese	0.06	0.15- 0.65					
Chromium	0.39	0.40- 0.65					
Vanadium	0.038	0.018- 0.065					
Molybdenum	0.11	0.040- 0.10					
Boron	12	0.40- 4.0					
Iodine	0.23	0.25- 1.8					
Lithium	0.013	0.008- 0.030					
Phosphorus	1110	250- 500					
Selenium	0.72	0.80- 1.3					
Strontium	18	1.0- 8.0					
Sulfur	46500	42000- 48000					
Cobalt	0.008	0.006- 0.035					
Iron	13	7.0- 16					
Germanium	0.029	0.030- 0.040					
Rubidium	0.039	0.030- 0.25					
Zirconium	0.027	0.040- 1.0					

SPECIMEN DATA				RATIOS		
<b>COMMENTS:</b>				<b>ELEMENTS</b>	<b>RATIOS</b>	<b>EXPECTED RANGE</b>
Date Collected: 12/23/2010	Sample Size: 0.203 g			Ca/Mg	6.15	4- 30
Date Received: 12/28/2010	Sample Type: Pubic			Ca/P	2.16	1- 12
Date Completed: 12/30/2010	Hair Color: Brown			Na/K	3.54	0.5- 10
Client Reference: 1256281	Treatment:			Zn/Cu	17.3	4- 20
Methodology: ICP-MS	Shampoo: Desert Essence			Zn/Cd	> 999	> 800
	V010.08					



HAIR TEST: Number 455 follow-up

SEX: Female

AGE: 67

*Toxic & Essential Elements; Hair*

TOXIC METALS				
		RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 68 <sup>th</sup> 95 <sup>th</sup>
Aluminum (Al)		3.4	< 12	
Antimony (Sb)		0.013	< 0.060	
Arsenic (As)		0.046	< 0.090	
Barium (Ba)		13	< 2.0	
Beryllium (Be)		< 0.01	< 0.020	
Bismuth (Bi)		0.067	< 2.0	
Cadmium (Cd)		0.016	< 0.050	
Lead (Pb)		0.42	< 1.0	
Mercury (Hg)		0.21	< 0.80	
Platinum (Pt)		< 0.003	< 0.005	
Thallium (Tl)		< 0.001	< 0.002	
Thorium (Th)		< 0.001	< 0.002	
Uranium (U)		0.006	< 0.060	
Nickel (Ni)		0.08	< 0.40	
Silver (Ag)		0.02	< 0.10	
Tin (Sn)		0.11	< 0.30	
Titanium (Ti)		2.1	< 1.3	
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)		2680	475- 1500		
Magnesium (Mg)		280	45- 180		
Sodium (Na)		52	80- 450		
Potassium (K)		11	28- 160		
Copper (Cu)		9.4	11- 30		
Zinc (Zn)		170	130- 200		
Manganese (Mn)		0.32	0.15- 0.65		
Chromium (Cr)		0.35	0.40- 0.65		
Vanadium (V)		0.022	0.018- 0.065		
Molybdenum (Mo)		0.51	0.040- 0.10		
Boron (B)		1.3	0.40- 4.0		
Iodine (I)		0.17	0.25- 1.8		
Lithium (Li)		0.013	0.008- 0.030		
Phosphorus (P)		1360	250- 500		
Selenium (Se)		1.1	0.80- 1.3		
Strontium (Sr)		17	1.0- 8.0		
Sulfur (S)		48300	42000- 48000		
Cobalt (Co)		0.013	0.006- 0.035		
Iron (Fe)		11	7.0- 16		
Germanium (Ge)		0.036	0.030- 0.040		
Rubidium (Rb)		0.007	0.030- 0.25		
Zirconium (Zr)		0.052	0.040- 1.0		

SPECIMEN DATA		RATIOS	
<b>COMMENTS:</b>		ELEMENTS	RATIOS
Date Collected: 5/24/2012	Sample Size: 0.196 g	Ca/Mg	9.57
Date Received: 5/29/2012	Sample Type: Pubic	Ca/P	1.97
Date Completed: 6/1/2012	Hair Color: Brown	Na/K	4.73
Methodology: ICP/MS	Treatment:	Zn/Cu	18.1
	Shampoo: Desert Essence	Zn/Cd	> 999
		RANGE	
			4- 30
			1- 12
			0.5- 10
			4- 20
			> 800



HAIR TEST: Number 455 - follow-up  
 SEX: Female  
 AGE: 71

*Toxic & Essential Elements; Hair*

TOXIC METALS			
	RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 68 <sup>th</sup> 95 <sup>th</sup>
Aluminum (Al)	7.4	< 7.0	
Antimony (Sb)	0.021	< 0.050	
Arsenic (As)	0.14	< 0.060	
Barium (Ba)	2.3	< 2.0	
Beryllium (Be)	< 0.01	< 0.020	
Bismuth (Bi)	0.069	< 2.0	
Cadmium (Cd)	0.025	< 0.050	
Lead (Pb)	0.37	< 0.60	
Mercury (Hg)	0.13	< 0.80	
Platinum (Pt)	< 0.003	< 0.005	
Thallium (Tl)	< 0.001	< 0.002	
Thorium (Th)	< 0.001	< 0.002	
Uranium (U)	0.003	< 0.060	
Nickel (Ni)	0.06	< 0.30	
Silver (Ag)	0.01	< 0.15	
Tin (Sn)	0.44	< 0.30	
Titanium (Ti)	0.32	< 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)	448	300- 1200	
Magnesium (Mg)	380	35- 120	
Sodium (Na)	100	20- 250	
Potassium (K)	36	8- 75	
Copper (Cu)	10	11- 37	
Zinc (Zn)	170	140- 220	
Manganese (Mn)	0.32	0.08- 0.60	
Chromium (Cr)	0.39	0.40- 0.65	
Vanadium (V)	0.041	0.018- 0.065	
Molybdenum (Mo)	0.035	0.020- 0.050	
Boron (B)	5.2	0.25- 1.5	
Iodine (I)	1.6	0.25- 1.8	
Lithium (Li)	< 0.004	0.007- 0.020	
Phosphorus (P)	155	150- 220	
Selenium (Se)	1.6	0.55- 1.1	
Strontium (Sr)	2.6	0.50- 7.6	
Sulfur (S)	45300	44000- 50000	
Cobalt (Co)	0.015	0.005- 0.040	
Iron (Fe)	9.1	7.0- 16	
Germanium (Ge)	0.029	0.030- 0.040	
Rubidium (Rb)	0.031	0.007- 0.096	
Zirconium (Zr)	0.012	0.020- 0.42	

SPECIMEN DATA		RATIOS	
<b>COMMENTS:</b>		<b>ELEMENTS</b>	<b>RATIOS</b>
Date Collected: 01/31/2016		Ca/Mg	1.18
Date Received: 02/04/2016		Ca/P	2.89
Date Completed: 02/08/2016		Na/K	2.78
Methodology: ICP/MS		Zn/Cu	17
Sample Size: 0.203 g	Sample Type: Head	Zn/Cd	> 999
Hair Color: Brown	Treatment:		
Shampoo: Dr Bronners Soap			
		<b>RANGE</b>	
		4- 30	
		1- 12	
		0.5- 10	
		4- 20	
		> 800	

## Health history for hair test 455 - Feb 2016

1) The last test shows high arsenic, 95th percentile, and that's my concern. Andy seems to say that arsenic levels on hair test are fairly accurate and not affected by deranged mineral transport. I don't currently meet any counting rules, not even close, so that shouldn't be an issue with the high arsenic, anyway. Since I'm not entirely sure what Andy's saying about how arsenic is affected in hair, I'm wondering whether my arsenic level has always been high or if it's from a new exposure.

I do have a new symptom, apparent neuropathy (the backs of my hands and my legs sometimes have burning, stinging sensations.) Otherwise my symptoms are consistent with Lyme disease, which I've had for 28 years.

2) My amalgams were all removed about 25 years ago.

3) My only current dental work is composite fillings.

4) My mother had lots of dental work in her mouth, probably most of it was present during her pregnancy with me.

5) I haven't had any vaccinations in the past 25 years.

6) Supplements:

15 mg HC  
6-8 g vitamin C  
2 g L-glutamine  
1.5 g DMG  
2 g mastic gum  
2 g acetyl L- carnitine

1 tbsp cod liver oil

1 tbsp fish oil

5,000 IU D3

3000 mg black currant seed oil

2000 mg Conjugated linoleic acid

200 mcg Selenium

50 mg Zinc

K2: 200mcg as menaquinone-7, 1300 as mcg menaquinone-4

1000 mcg Iodine

200 mg Ubiquinol

650 mg Gamma E w/mixed tocopherols & tocotrienols

1/2 tsp Epsom salt

150 mcg Molybdenum

1600 mg Slippery elm bark

600 mg Milk thistle extract

1 g calcium D-glucarate

400 mcg huperzine A

Digestive enzymes w/ meals

20,000 diamineoxidase (histamine blocker)

1.5 g estriol cream 2 nights/week

50 mg doxylamine succinate (Unisom)

.25 mg Klonopin approximately alternate nights

1/8 tsp progesterone cream

7) I stopped chelating 10/18/2015 because the Lyme treatment I was doing was rough then, and interrupting sleep was just a little too much. The last round was my 149th.

8) I'm in Santa Rosa, California

## 9Uf\Yf\ ealth history for hair test 455

Here's my hair test. This was done after I'd chelated for close to six months.

Answers to the questions:

1. Became ill ~ 24 years ago while working in a chemical lab. Diagnosed then with chronic Epstein Barr virus, later with Chronic Fatigue Syndrome and ~ 6 years ago with chronic Lyme disease. Symptoms: short-term memory problems, cognitive problems, low energy, post-exertional fatigue, MCS, food sensitivities that worsen my symptoms, double vision and floaters esp. in left eye, tinnitus, sore joints in response to food & other sensitivities, depression & anxiety also in response to food sensitivities. History of depression since adolescence.
2. Only one wisdom tooth; had it removed ~ 20 years ago. One root canal placed ~ 35 years ago, removed ~ 5 years ago. First amalgam placed around age 10, only 4 total, these removed ~ 20 years ago.
3. No dental work currently in place.
4. I don't know my mother's dental history.
5. Usual childhood vaccinations for someone my age (66), no flu shots since about 1988, I don't remember any other shots, though I may have had some.
6. Supplements, etc.
  1. Vitamin C, 1 gram
  2. Vitamin E, 400 IU
  3. Molybdenum, 1mg
  4. Borage oil, 960 mg
  5. Fish oil (salmon), 1 tsp.
  6. Cod liver oil, 1/2 tsp.
  7. Unisom, 1 tablet on chelation nights
  8. Cortisol, 5 mg. on chelation days
  9. Exhilarin (ashwaganda, & other herbs), an occasional tablet
  10. B-50, 1/2 capsule occasionally
7. I'm 66, 5' 1 1/2", 135 lb.
8. Can't think of anything
9. Rohnert Park, CA, USA. I got sick in Southern California (San Bernardino County)

While I don't know my mother's dental history, I do know she had fillings, bridges and crowns. She told me she played with mercury as a child.

The lab where I worked had a lot of mercury from broken instruments lying around, and very poor ventilation.

I didn't chelate right after amalgam removal because I didn't know it was necessary. The removal did make me feel a lot better for several months, then I got sicker, just the way Andy describes in AI. I did attempt chelation about six years ago. I was using 200 mg of DMSA twice a day and after about three months of that, I got a rash from the DMSA and had to quit. I followed that with 200 mg. of ALA once or twice a day for a couple of years at least, and my health declined during that time - all my symptoms

got worse, including the sensitivities to food and other substances. I've always thought 90% of my symptoms are actually caused by my sensitivities to foods, supplements, and environmental contaminants.