

# HAIR ELEMENTS



**PATIENT: Number 509**  
**SEX: Male**  
**AGE: 59**

POTENTIALLY TOXIC ELEMENTS				
TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 <sup>th</sup>	95 <sup>th</sup>
Aluminum	2.5	< 7.0		
Antimony	< 0.01	< 0.066		
Arsenic	0.096	< 0.080		
Barium	0.19	< 1.0		
Beryllium	< 0.01	< 0.020		
Bismuth	0.017	< 2.0		
Cadmium	0.021	< 0.065		
Lead	0.14	< 0.80		
Mercury	3.9	< 0.80		
Platinum	< 0.003	< 0.005		
Thallium	< 0.001	< 0.002		
Thorium	< 0.001	< 0.002		
Uranium	< 0.001	< 0.060		
Nickel	0.04	< 0.20		
Silver	< 0.006	< 0.08		
Tin	0.04	< 0.30		
Titanium	0.47	< 0.60		
Total Toxic Representation				

ESSENTIAL AND OTHER ELEMENTS						
ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE			97.5 <sup>th</sup>
			2.5 <sup>th</sup>	16 <sup>th</sup>	50 <sup>th</sup>	
Calcium	261	200- 750				
Magnesium	26	25- 75				
Sodium	13	20- 180				
Potassium	9	9- 80				
Copper	23	11- 30				
Zinc	190	130- 200				
Manganese	0.07	0.08- 0.50				
Chromium	0.36	0.40- 0.70				
Vanadium	0.040	0.018- 0.065				
Molybdenum	0.031	0.025- 0.060				
Boron	3.5	0.40- 3.0				
Iodine	0.72	0.25- 1.8				
Lithium	0.010	0.007- 0.020				
Phosphorus	198	150- 220				
Selenium	1.1	0.70- 1.2				
Strontium	0.36	0.30- 3.5				
Sulfur	46100	44000- 50000				
Cobalt	0.003	0.004- 0.020				
Iron	6.5	7.0- 16				
Germanium	0.027	0.030- 0.040				
Rubidium	0.009	0.011- 0.12				
Zirconium	0.029	0.020- 0.44				

SPECIMEN DATA			RATIOS		
<b>COMMENTS:</b>			<b>ELEMENTS</b>	<b>RATIOS</b>	<b>EXPECTED RANGE</b>
Date Collected: 7/13/2011	Sample Size: 0.18 g		Ca/Mg	10	4- 30
Date Received: 7/16/2011	Sample Type: Head		Ca/P	1.32	0.8- 8
Date Completed: 7/22/2011	Hair Color: Brown		Na/K	1.44	0.5- 10
Client Reference:	Treatment:		Zn/Cu	8.26	4- 20
Methodology: ICP-MS	Shampoo: Avalon Organics		Zn/Cd	> 999	> 800



PATIENT: Number 509 follow up  
 SEX: Male  
 AGE: 61

## Toxic & Essential Elements; Hair

TOXIC METALS			
	RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 68 <sup>th</sup> 95 <sup>th</sup>
Aluminum (Al)	6.3	< 7.0	
Antimony (Sb)	< 0.01	< 0.066	
Arsenic (As)	0.037	< 0.080	
Barium (Ba)	0.13	< 1.0	
Beryllium (Be)	< 0.01	< 0.020	
Bismuth (Bi)	0.032	< 2.0	
Cadmium (Cd)	< 0.009	< 0.065	
Lead (Pb)	0.18	< 0.80	
Mercury (Hg)	0.15	< 0.80	
Platinum (Pt)	< 0.003	< 0.005	
Thallium (Tl)	< 0.001	< 0.002	
Thorium (Th)	< 0.001	< 0.002	
Uranium (U)	0.002	< 0.060	
Nickel (Ni)	0.08	< 0.20	
Silver (Ag)	0.01	< 0.08	
Tin (Sn)	0.02	< 0.30	
Titanium (Ti)	0.21	< 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)	534	200- 750			
Magnesium (Mg)	27	25- 75			
Sodium (Na)	10	20- 180			
Potassium (K)	6	9- 80			
Copper (Cu)	34	11- 30			
Zinc (Zn)	230	130- 200			
Manganese (Mn)	0.10	0.08- 0.50			
Chromium (Cr)	0.44	0.40- 0.70			
Vanadium (V)	0.019	0.018- 0.065			
Molybdenum (Mo)	0.036	0.025- 0.060			
Boron (B)	1.6	0.40- 3.0			
Iodine (I)	0.95	0.25- 1.8			
Lithium (Li)	< 0.004	0.007- 0.020			
Phosphorus (P)	178	150- 220			
Selenium (Se)	1.2	0.70- 1.2			
Strontium (Sr)	0.47	0.30- 3.5			
Sulfur (S)	48600	44000- 50000			
Cobalt (Co)	0.005	0.004- 0.020			
Iron (Fe)	8.0	7.0- 16			
Germanium (Ge)	0.028	0.030- 0.040			
Rubidium (Rb)	0.006	0.011- 0.12			
Zirconium (Zr)	0.036	0.020- 0.44			

SPECIMEN DATA		RATIOS	
<b>COMMENTS:</b>		<b>ELEMENTS</b>	<b>RATIOS</b>
Date Collected:		Ca/Mg	19.8
Date Received: 02/04/2013		Ca/P	3
Date Completed: 02/12/2013		Na/K	1.67
Methodology: ICP/MS		Zn/Cu	6.76
Sample Size: 0.177 g		Zn/Cd	> 999
Sample Type: Head			
Hair Color: Brown			
Treatment:			
Shampoo: Avalon Organics			
		<b>RANGE</b>	
			4- 30
			0.8- 8
			0.5- 10
			4- 20
			> 800



SEX: Male  
AGE: 65

**Toxic & Essential Elements; Hair**

TOXIC METALS			
	RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 68 <sup>th</sup> 95 <sup>th</sup>
Aluminum (Al)	3.0	< 7.0	
Antimony (Sb)	0.025	< 0.066	
Arsenic (As)	0.022	< 0.080	
Barium (Ba)	0.30	< 1.0	
Beryllium (Be)	< 0.01	< 0.020	
Bismuth (Bi)	0.006	< 2.0	
Cadmium (Cd)	< 0.009	< 0.065	
Lead (Pb)	0.21	< 0.80	
Mercury (Hg)	0.35	< 0.80	
Platinum (Pt)	< 0.003	< 0.005	
Thallium (Tl)	< 0.001	< 0.002	
Thorium (Th)	< 0.001	< 0.002	
Uranium (U)	0.011	< 0.060	
Nickel (Ni)	0.09	< 0.20	
Silver (Ag)	0.01	< 0.08	
Tin (Sn)	0.16	< 0.30	
Titanium (Ti)	0.18	< 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)	522	200- 750	
Magnesium (Mg)	33	25- 75	
Sodium (Na)	6	20- 180	
Potassium (K)	3	9- 80	
Copper (Cu)	65	11- 30	
Zinc (Zn)	210	130- 200	
Manganese (Mn)	0.10	0.08- 0.50	
Chromium (Cr)	0.36	0.40- 0.70	
Vanadium (V)	0.015	0.018- 0.065	
Molybdenum (Mo)	0.023	0.025- 0.060	
Boron (B)	0.77	0.40- 3.0	
Iodine (I)	1.7	0.25- 1.8	
Lithium (Li)	< 0.004	0.007- 0.020	
Phosphorus (P)	155	150- 220	
Selenium (Se)	0.74	0.70- 1.2	
Strontium (Sr)	1.1	0.30- 3.5	
Sulfur (S)	46700	44000- 50000	
Cobalt (Co)	0.019	0.004- 0.020	
Iron (Fe)	6.7	7.0- 16	
Germanium (Ge)	0.032	0.030- 0.040	
Rubidium (Rb)	0.003	0.011- 0.12	
Zirconium (Zr)	0.024	0.020- 0.44	

SPECIMEN DATA		RATIOS		
<b>COMMENTS:</b>		ELEMENTS	RATIOS	RANGE
Date Collected:	Sample Size: 0.199 g	Ca/Mg	15.8	4- 30
Date Received: 03/09/2017	Sample Type: Head	Ca/P	3.37	0.8- 8
Date Completed: 03/13/2017	Hair Color: Brown	Na/K	2	0.5- 10
Methodology: ICP/MS	Treatment:	Zn/Cu	3.23	4- 20
	Shampoo: Shikai	Zn/Cd	> 999	> 800

## Health History

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

About 12 years ago I taught karate for a living, my physical conditioning was at the level of elite athlete. I've always made an effort to take care of my health, although I worked around toxic inks and paints for several years when I was in my early 30's. Also, around the same time I had a lot of amalgam fillings put into my mouth. I don't know the exact number but I think it was 12-17.

Because I was an athlete, I wanted to eat food that would support my training. For many years I ate salmon (probably farm-raised) and canned tuna every day. I also ate a lot of sushi.

Even though I was usually very healthy, I would go through periods where I felt very fatigued. About 12 years ago, I hurt my hip and greatly curtailed my training. It seems my energy went downhill from there. In addition, I was under a great amount of stress from a new business. About 10 years ago, my adrenals crashed in a hot yoga class. I've been trying to regain my health every since.

My life changed literally overnight. In the beginning, I probably had every symptom associated with mercury toxicity. The struggles with the adrenals and thyroid had been difficult. I've had Candida, MCS, depression, extreme fatigue, anxiety, poor sleep quality, etc.

It took me years before I focused on mercury toxicity as the underlying malady, (I was incorrectly diagnosed with Lyme disease). I did one year of chelating that ended May 2010; I had worked up to 25mg each of DMSA and ALA. I thought my adrenals were in better shape and as I did not support them adequately, they crashed. I've been on HC for the past year and T3 for about four months, (not Wilson's Syndrome although I tried it). I'm taking all the main supplements recommended by AC, plus some, (about 30 different things).

In addition, I've done a lot of colonics (which were helpful for Candida problems), and a year of acupuncture which was helpful for MCS and liver issues. Also, I maintain a strict, low-carb diet. I started chelating again a month ago. I am tolerating it fine and my adrenals feel much stronger.

### 2. Dental history (Wisdom teeth removed and when? Any other extractions.

First root canal placed? Braces? First amalgam etc...)

I had at least a dozen amalgam fillings, not sure about the exact number. They were all removed over a period of five years (as they were breaking up). A dam was used but NOT by a biological dentist. The first were put in place when I was around 25. I had four wisdom teeth surgically removed when I was about 28. I've never had braces or root canals. I currently have several crowns made from porcelain.

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

I have three porcelain crowns. All of my amalgam fillings have been removed.

4. What dentistry did your mother have at any time before or during pregnancy?

My mother had dentures that were part metal. She had a lot of metal in her mouth including amalgam fillings. I do not know when they were put in but they were there from my earliest memory. I feel certain that my mother was very mercury toxic. She had all the symptoms: thyroid issues, depression, digestive issues, Candida, MCS, etc. She passed away before I became enlightened about the effects of mercury poisoning. The symptoms I developed are the same that my mother had. I also have a sister two years younger that has all the classic symptoms.

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

Polio and chickenpox are the only childhood vaccines I'm sure I had, although possibly mumps and measles. I had probably two flu shots back in the mid 70's when I was in my mid 20's—none since. I've had a couple of tetanus shots in my life. I've never had travel related shots.

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

HC-10-15mg daily, T3-40 mcg daily, DMSA-6mg dose, New Chapter Multi- 2 daily, zinc-30mg x2, magnesium-400-600mg daily, vitamin C-1400mg x3, vitamin E-400IU x2, selenium-200mcg x2, Adrenergize 2-daily, DHEA 30mg daily, AdreCor-2 daily, Super Miraforte-4 daily, B Complex-2 daily, CoQ 10-1 daily, Chromium-500mg x5, Trace Mineral, Potassium-99mg daily, molybdenum-1000mcg daily, naicinimide-500mg x3, cod liver oil-1 tbs daily, flax oil-1 tbs daily, pantothenic acid-500mg x3, milk thistle-175mg x3, prostate advantage-2 daily, betaine hydrochloride-3000mg each meal, Pancreatin 8X-1 each meal, Dr. Ohhira's probiotics.

7. What is your age, height and weight?

Age: 59, Height: 5'11½", Weight: 172 lb.

8. Other information you feel may be relevant?

In the summer 2010, I realized that I have sleep apnea and have probably had it for many years. This is unusual because I am not obese—I did put on weight around my middle in the past year, probably cortisol related). I think the sleep apnea is the result of a deviated septum I received from fighting in the mid 80's. I think the very poor quality sleep from the undiagnosed sleep apnea played havoc with my adrenals. I also have hypoglycemia.

9. What is your location - city & country (so that we can learn where certain toxins are more prevalent).

Nashville, TN USA