

# HAIR ELEMENTS



**PATIENT: Number 163**  
**SEX: Female**  
**AGE: 58**  
**Location: Seattle, USA**

TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			68 <sup>th</sup>	95 <sup>th</sup>
Aluminum	1.6	< 7.0		
Antimony	0.050	< 0.050		
Arsenic	0.056	< 0.060		
Beryllium	< 0.01	< 0.020		
Bismuth	0.024	< 2.0		
Cadmium	< 0.009	< 0.10		
Lead	0.09	< 1.0		
Mercury	0.71	< 1.1		
Platinum	< 0.003	< 0.005		
Thallium	0.002	< 0.010		
Thorium	< 0.001	< 0.005		
Uranium	0.008	< 0.060		
Nickel	0.03	< 0.40		
Silver	0.04	< 0.15		
Tin	0.05	< 0.30		
Titanium	0.40	< 1.0		
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	526	300- 1200					
Magnesium	33	35- 120					
Sodium	24	12- 90					
Potassium	16	8- 38					
Copper	9.7	12- 35					
Zinc	190	140- 220					
Manganese	0.12	0.15- 0.65					
Chromium	0.37	0.20- 0.40					
Vanadium	0.019	0.018- 0.065					
Molybdenum	0.026	0.028- 0.056					
Boron	0.38	0.30- 2.0					
Iodine	0.53	0.25- 1.3					
Lithium	< 0.004	0.007- 0.023					
Phosphorus	143	160- 250					
Selenium	1.2	0.95- 1.7					
Strontium	0.62	0.50- 7.6					
Sulfur	40200	44500- 52000					
Barium	0.10	0.26- 3.0					
Cobalt	0.005	0.013- 0.050					
Iron	9.1	5.4- 14					
Germanium	0.021	0.045- 0.065					
Rubidium	0.014	0.007- 0.096					
Zirconium	0.065	0.020- 0.42					

### SPECIMEN DATA

**COMMENTS:**  
 Date Collected: 1/15/2008      Sample Size: 0.195 g  
 Date Received: 1/18/2008      Sample Type: Head  
 Date Completed: 1/21/2008      Hair Color: Brown  
    Treatment:  
 Methodology: ICP-MS              Shampoo: Aussie Mega

V06.99

### RATIOS

ELEMENTS	RATIOS	EXPECTED RANGE
Ca/Mg	15.9	4- 30
Ca/P	3.68	1- 12
Na/K	1.5	0.5- 10
Zn/Cu	19.6	4- 20
Zn/Cd	> 999	> 800

**Health history:** Diagnosed with MS a year ago. Current symptoms: mostly numbness and other paresthesias involving my hands and feet, plus "rubbery legs." I also have low temperature, tinnitus, thinning hair, various aches and pains, frequent "brain fog" and short term memory issues, various digestive problems for about 15 years.

Test meets 2 counting rules, even though I was already taking many supplements by then (B's, C, D, E, omega-3's, multi as well).

I live in Seattle, so have been to Julie Anderson for additional supplement recommendations. I've also read both of Andy's books, and am in the middle of getting all my remaining 8 amalgams removed by a dentist Julie highly recommends. I have lots of crowns as well, most placed in the past 12 years by a non-mercury free dentist. I have never had a root canal. I'm 58, so I probably got my first amalgam about 50 years ago. I wore braces at age 18 (for which I had 4 teeth extracted) and had one wisdom tooth extracted more than 15 years ago.

I have other exposures besides amalgams----contact lens solutions for 14 years (mostly in the 1980s), several flu shots (but none in past 3 years), various paints and solvents (including paint with some fungicide additive), etc.