

# HAIR ELEMENTS



**PATIENT: Number 216**  
**SEX: Female**  
**AGE: 48**  
**LOCATION: Springfield, Missouri, USA**

## POTENTIALLY TOXIC ELEMENTS

| TOXIC ELEMENTS             | RESULT $\mu\text{g/g}$ | REFERENCE RANGE | PERCENTILE       |                  |
|----------------------------|------------------------|-----------------|------------------|------------------|
|                            |                        |                 | 68 <sup>th</sup> | 95 <sup>th</sup> |
| Aluminum                   | 4.7                    | < 12            |                  |                  |
| Antimony                   | 0.012                  | < 0.060         |                  |                  |
| Arsenic                    | 0.064                  | < 0.090         |                  |                  |
| Beryllium                  | < 0.01                 | < 0.020         |                  |                  |
| Bismuth                    | 0.32                   | < 2.0           |                  |                  |
| Cadmium                    | 0.034                  | < 0.10          |                  |                  |
| Lead                       | 0.35                   | < 1.0           |                  |                  |
| Mercury                    | 0.78                   | < 1.1           |                  |                  |
| Platinum                   | < 0.003                | < 0.005         |                  |                  |
| Thallium                   | 0.001                  | < 0.010         |                  |                  |
| Thorium                    | 0.001                  | < 0.005         |                  |                  |
| Uranium                    | 0.004                  | < 0.060         |                  |                  |
| Nickel                     | 0.02                   | < 0.40          |                  |                  |
| Silver                     | 0.06                   | < 0.10          |                  |                  |
| Tin                        | 0.02                   | < 0.30          |                  |                  |
| Titanium                   | 0.64                   | < 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    | 379                    | 475- 1500       |                   |                  |                  |                  |                    |
| Magnesium  | 89                     | 45- 180         |                   |                  |                  |                  |                    |
| Sodium     | 570                    | 24- 180         |                   |                  |                  |                  |                    |
| Potassium  | 240                    | 20- 80          |                   |                  |                  |                  |                    |
| Copper     | 34                     | 9.0- 24         |                   |                  |                  |                  |                    |
| Zinc       | 130                    | 130- 200        |                   |                  |                  |                  |                    |
| Manganese  | 0.10                   | 0.20- 0.65      |                   |                  |                  |                  |                    |
| Chromium   | 0.50                   | 0.20- 0.45      |                   |                  |                  |                  |                    |
| Vanadium   | 0.068                  | 0.018- 0.065    |                   |                  |                  |                  |                    |
| Molybdenum | 0.051                  | 0.040- 0.10     |                   |                  |                  |                  |                    |
| Boron      | 2.4                    | 0.70- 4.0       |                   |                  |                  |                  |                    |
| Iodine     | 0.50                   | 0.25- 1.3       |                   |                  |                  |                  |                    |
| Lithium    | 0.008                  | 0.008- 0.040    |                   |                  |                  |                  |                    |
| Phosphorus | 298                    | 350- 600        |                   |                  |                  |                  |                    |
| Selenium   | 0.96                   | 0.95- 1.7       |                   |                  |                  |                  |                    |
| Strontium  | 1.0                    | 1.0- 8.0        |                   |                  |                  |                  |                    |
| Sulfur     | 45900                  | 43000- 50000    |                   |                  |                  |                  |                    |
| Barium     | 0.54                   | 0.50- 5.0       |                   |                  |                  |                  |                    |
| Cobalt     | 0.004                  | 0.013- 0.050    |                   |                  |                  |                  |                    |
| Iron       | 8.1                    | 5.8- 14         |                   |                  |                  |                  |                    |
| Germanium  | 0.027                  | 0.045- 0.065    |                   |                  |                  |                  |                    |
| Rubidium   | 0.29                   | 0.030- 0.25     |                   |                  |                  |                  |                    |
| Zirconium  | 1.5                    | 0.040- 1.0      |                   |                  |                  |                  |                    |

### SPECIMEN DATA

**COMMENTS:**  
 Date Collected: 10/28/2008      Sample Size: 0.141 g  
 Date Received: 11/4/2008      Sample Type: Pubic  
 Date Completed: 11/6/2008      Hair Color:  
    Treatment:  
 Methodology: ICP-MS              Shampoo:

V06.99

### RATIOS

| ELEMENTS | RATIOS | EXPECTED RANGE |
|----------|--------|----------------|
| Ca/Mg    | 4.26   | 4- 30          |
| Ca/P     | 1.27   | 1- 12          |
| Na/K     | 2.38   | 0.5- 10        |
| Zn/Cu    | 3.82   | 4- 20          |
| Zn/Cd    | > 999  | > 800          |

## Health history 216

- 1) **What are your current symptoms and health history?** Misdiagnosis of MS....symptoms cleared after two amalgams replaced.
- 2) **Dental history (wisdom teeth removed? First root canal placed? Braces? First amalgam etc...)** Still have 8 remaining amalgams as well as braces (which should come off in less than a month).
- 3) **What dental work do you currently have in place? What part of the dental cleanup have you completed?** Wisdom teeth removed. No root canals.
- 4) **What dentistry did your mother have at any time before or during pregnancy?** Mother had mouth full of amalgam by the time I was born.
- 5) **What vaccinations have you had and when (including flu and especially travel shots)?** Have always stayed up-to-date on vaccinations and have had flu shots every year (can't find thimerisol free flu vaccine yet).
- 6) **Supplements and medications (including dosages) taken at time of hair test, or for the 3-6 months before the sample was taken.** Recently started supplementing vit. C and D (due to major deficiency) and L-arginine after hair sample given.
- 7) **Other information you feel may be relevant?** Have major chronic fatigue, brain fog, anxiety, endocrine problems, depression, fibromyalgia, and insomnia.
- 8) **What is your location - city & country (so that we can learn where certain toxins are more prevalent).** Live in Springfield, MO close to a coal burning electric plant. Drink lots of filtered tap water (that comes from an aquifer).