

# HAIR ELEMENTS



**PATIENT: Number 348**  
**SEX: Female**  
**AGE: 3**  
**LOCATION: Lincoln, NE**

## POTENTIALLY TOXIC ELEMENTS

| TOXIC ELEMENTS             | RESULT<br>µg/g | REFERENCE RANGE | PERCENTILE       |                  |
|----------------------------|----------------|-----------------|------------------|------------------|
|                            |                |                 | 68 <sup>th</sup> | 95 <sup>th</sup> |
| Aluminum                   | 6.8            | < 8.0           |                  |                  |
| Antimony                   | 0.037          | < 0.066         |                  |                  |
| Arsenic                    | 0.14           | < 0.080         |                  |                  |
| Barium                     | 0.35           | < 0.75          |                  |                  |
| Beryllium                  | < 0.01         | < 0.020         |                  |                  |
| Bismuth                    | 0.041          | < 2.0           |                  |                  |
| Cadmium                    | 0.014          | < 0.070         |                  |                  |
| Lead                       | 0.16           | < 1.0           |                  |                  |
| Mercury                    | 0.15           | < 0.40          |                  |                  |
| Platinum                   | < 0.003        | < 0.005         |                  |                  |
| Thallium                   | < 0.001        | < 0.002         |                  |                  |
| Thorium                    | < 0.001        | < 0.002         |                  |                  |
| Uranium                    | 0.26           | < 0.060         |                  |                  |
| Nickel                     | 0.02           | < 0.30          |                  |                  |
| Silver                     | 0.03           | < 0.20          |                  |                  |
| Tin                        | 0.20           | < 0.30          |                  |                  |
| Titanium                   | 0.35           | < 0.90          |                  |                  |
| Total Toxic Representation |                |                 |                  |                  |

## ESSENTIAL AND OTHER ELEMENTS

| ELEMENTS   | RESULT<br>µg/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    | 150            | 140- 500        |                   |                  |                  |                  |                    |
| Magnesium  | 110            | 15- 45          |                   |                  |                  |                  |                    |
| Sodium     | 18             | 18- 180         |                   |                  |                  |                  |                    |
| Potassium  | 8              | 10- 150         |                   |                  |                  |                  |                    |
| Copper     | 11             | 11- 24          |                   |                  |                  |                  |                    |
| Zinc       | 140            | 100- 190        |                   |                  |                  |                  |                    |
| Manganese  | 0.12           | 0.10- 0.50      |                   |                  |                  |                  |                    |
| Chromium   | 0.31           | 0.43- 0.70      |                   |                  |                  |                  |                    |
| Vanadium   | 0.088          | 0.030- 0.10     |                   |                  |                  |                  |                    |
| Molybdenum | 0.060          | 0.050- 0.13     |                   |                  |                  |                  |                    |
| Boron      | 0.65           | 0.40- 3.5       |                   |                  |                  |                  |                    |
| Iodine     | 0.33           | 0.25- 1.3       |                   |                  |                  |                  |                    |
| Lithium    | 0.004          | 0.007- 0.020    |                   |                  |                  |                  |                    |
| Phosphorus | 160            | 150- 220        |                   |                  |                  |                  |                    |
| Selenium   | 0.76           | 0.70- 1.1       |                   |                  |                  |                  |                    |
| Strontium  | 0.45           | 0.19- 2.0       |                   |                  |                  |                  |                    |
| Sulfur     | 49500          | 45500- 53000    |                   |                  |                  |                  |                    |
| Cobalt     | 0.005          | 0.005- 0.030    |                   |                  |                  |                  |                    |
| Iron       | 8.3            | 7.0- 16         |                   |                  |                  |                  |                    |
| Germanium  | 0.032          | 0.030- 0.040    |                   |                  |                  |                  |                    |
| Rubidium   | 0.014          | 0.012- 0.16     |                   |                  |                  |                  |                    |
| Zirconium  | 0.67           | 0.030- 1.0      |                   |                  |                  |                  |                    |

### SPECIMEN DATA

**COMMENTS:**  
 Date Collected: 4/20/2010      Sample Size: 0.198 g  
 Date Received: 4/22/2010      Sample Type: Head  
 Date Completed: 4/25/2010      Hair Color: Brown  
 Client Reference: 1229636      Treatment:  
 Methodology: ICP-MS      Shampoo: Whole Foods

### RATIOS

| ELEMENTS | RATIOS | EXPECTED RANGE |
|----------|--------|----------------|
| Ca/Mg    | 1.36   | 4- 30          |
| Ca/P     | 0.938  | 1- 12          |
| Na/K     | 2.25   | 0.5- 10        |
| Zn/Cu    | 12.7   | 4- 20          |
| Zn/Cd    | > 999  | > 800          |

### Health history for hair test 348

- 1) What are your current symptoms and health history? multiple food allergies, some autistic type symptoms-some scripting, some ritualistic behaviors, poor eye contact, sometimes spacey, and I feel sometimes she just doesn't get it when I talk to her
- 2) Dental history (wisdom teeth removed? First root canal placed? Braces? First amalgam etc...) none
- 3) What dental work do you currently have in place? What part of the dental cleanup have you completed? n/a
- 4) What dentistry did your mother have at any time before or during pregnancy? 2 amalgams during pregnancy, no work done during
- 5) What vaccinations have you had and when (including flu and especially travel shots)? all vaccinations until 2 yrs, including flu shot 1/2 at 6 months and 1/2 at 7 months, no flu shot since
- 6) Supplements and medications (including dosages) taken at time of hair test, or for the 3-6 months before the sample was taken. probiotic, multivitamin, biotin 300 mcg 3x per day, now up to 1 mg 4x per day
- 7) Other information you feel may be relevant? gf/cf/very restricted rotation diet
- 8) What is your location - city & country (so that we can learn where certain toxins are more prevalent).Lincoln, NE