

# HAIR ELEMENTS



**PATIENT: Number 396**

**SEX: Female**

**AGE: 4**

**LOCATION: Puget Sound Region of Western Washington, USA**

## POTENTIALLY TOXIC ELEMENTS

| TOXIC ELEMENTS             | RESULT $\mu\text{g/g}$ | REFERENCE RANGE | PERCENTILE       |                  |
|----------------------------|------------------------|-----------------|------------------|------------------|
|                            |                        |                 | 68 <sup>th</sup> | 95 <sup>th</sup> |
| Aluminum                   | 13                     | < 8.0           |                  |                  |
| Antimony                   | 0.022                  | < 0.066         |                  |                  |
| Arsenic                    | 0.19                   | < 0.080         |                  |                  |
| Barium                     | 0.22                   | < 0.75          |                  |                  |
| Beryllium                  | < 0.01                 | < 0.020         |                  |                  |
| Bismuth                    | 0.042                  | < 2.0           |                  |                  |
| Cadmium                    | < 0.009                | < 0.070         |                  |                  |
| Lead                       | 0.15                   | < 1.0           |                  |                  |
| Mercury                    | 0.22                   | < 0.40          |                  |                  |
| Platinum                   | < 0.003                | < 0.005         |                  |                  |
| Thallium                   | < 0.001                | < 0.002         |                  |                  |
| Thorium                    | 0.001                  | < 0.002         |                  |                  |
| Uranium                    | 0.011                  | < 0.060         |                  |                  |
| Nickel                     | 0.11                   | < 0.30          |                  |                  |
| Silver                     | 0.59                   | < 0.20          |                  |                  |
| Tin                        | 0.11                   | < 0.30          |                  |                  |
| Titanium                   | 0.98                   | < 0.90          |                  |                  |
| 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    | 154                    | 140- 500        |                   |                  |                  |                  |                    |
| Magnesium  | 31                     | 15- 45          |                   |                  |                  |                  |                    |
| Sodium     | 66                     | 18- 180         |                   |                  |                  |                  |                    |
| Potassium  | 26                     | 10- 150         |                   |                  |                  |                  |                    |
| Copper     | 8.5                    | 11- 24          |                   |                  |                  |                  |                    |
| Zinc       | 160                    | 100- 190        |                   |                  |                  |                  |                    |
| Manganese  | 0.53                   | 0.10- 0.50      |                   |                  |                  |                  |                    |
| Chromium   | 0.58                   | 0.43- 0.70      |                   |                  |                  |                  |                    |
| Vanadium   | 0.11                   | 0.030- 0.10     |                   |                  |                  |                  |                    |
| Molybdenum | 0.056                  | 0.050- 0.13     |                   |                  |                  |                  |                    |
| Boron      | 0.96                   | 0.40- 3.5       |                   |                  |                  |                  |                    |
| Iodine     | 0.46                   | 0.25- 1.3       |                   |                  |                  |                  |                    |
| Lithium    | 0.008                  | 0.007- 0.020    |                   |                  |                  |                  |                    |
| Phosphorus | 167                    | 150- 220        |                   |                  |                  |                  |                    |
| Selenium   | 0.93                   | 0.70- 1.1       |                   |                  |                  |                  |                    |
| Strontium  | 0.08                   | 0.19- 2.0       |                   |                  |                  |                  |                    |
| Sulfur     | 46100                  | 45500- 53000    |                   |                  |                  |                  |                    |
| Cobalt     | 0.011                  | 0.005- 0.030    |                   |                  |                  |                  |                    |
| Iron       | 22                     | 7.0- 16         |                   |                  |                  |                  |                    |
| Germanium  | 0.034                  | 0.030- 0.040    |                   |                  |                  |                  |                    |
| Rubidium   | 0.042                  | 0.012- 0.16     |                   |                  |                  |                  |                    |
| Zirconium  | 0.11                   | 0.030- 1.0      |                   |                  |                  |                  |                    |

### SPECIMEN DATA

**COMMENTS:**

Date Collected: 5/18/2010  
 Date Received: 6/14/2010  
 Date Completed: 6/16/2010  
 Client Reference: 1231113  
 Methodology: ICP-MS

Sample Size: 0.202 g  
 Sample Type: Head  
 Hair Color:  
 Treatment:  
 Shampoo: Bwc Rosemary

V010.08

### RATIOS

| ELEMENTS | RATIOS | EXPECTED RANGE |
|----------|--------|----------------|
| Ca/Mg    | 4.97   | 4- 30          |
| Ca/P     | 0.922  | 1- 12          |
| Na/K     | 2.54   | 0.5- 10        |
| Zn/Cu    | 18.8   | 4- 20          |
| Zn/Cd    | > 999  | > 800          |

## **Health history for hair test 396**

### **1) What are your current symptoms and health history?**

She has apraxia (a neurological speech disorder). Shows signs of ADHD-Impulsive Type. Duplication in X chromosome.

### **2) Dental history (wisdom teeth removed? First root canal placed? Braces? First amalgam etc...)**

No dental work.

### **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?**

I had multiple pre-existing amalgam fillings during my pregnancy with her.

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

She had all her shots on a semi-delayed schedule, with the last being her MMR and Varicella at 18mo. So she's current for a 4yr old, will not be receiving any more.

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

Omega 3.6.9 - 2 caps daily

Vit C - 250 mg daily

DMG - 125 mg

Phos. Serine - 100mg daily

Vit E - 400 IU every other day

CoQ10 - 200mg every other day

### **7) Other information you feel may be relevant?**

Once as a toddler (about a 1 1/2 yrs) took a bit of my aluminum containing anti-perspirant/deodorant.

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

Currently, Puget Sound Region of Western Washington. Born in North Carolina. First 2 years in Phoenix, AZ.