

HAIR ELEMENTS



PATIENT: Number 310
SEX: Female
AGE: 30
LOCATION: Grand Rapids, Michigan, USA

POTENTIALLY TOXIC ELEMENTS

| TOXIC ELEMENTS | RESULT $\mu\text{g/g}$ | REFERENCE RANGE | PERCENTILE | |
|----------------------------|------------------------|-----------------|------------------|------------------|
| | | | 68 th | 95 th |
| Aluminum | 4.2 | < 7.0 | | |
| Antimony | 0.012 | < 0.050 | | |
| Arsenic | 0.014 | < 0.060 | | |
| Barium | 0.77 | < 2.0 | | |
| Beryllium | < 0.01 | < 0.020 | | |
| Bismuth | 0.014 | < 2.0 | | |
| Cadmium | 0.042 | < 0.050 | | |
| Lead | 0.18 | < 0.60 | | |
| Mercury | 0.03 | < 0.80 | | |
| Platinum | < 0.003 | < 0.005 | | |
| Thallium | < 0.001 | < 0.002 | | |
| Thorium | < 0.001 | < 0.002 | | |
| Uranium | 0.008 | < 0.060 | | |
| Nickel | 0.25 | < 0.30 | | |
| Silver | 0.04 | < 0.15 | | |
| Tin | 0.50 | < 0.30 | | |
| Titanium | 0.44 | < 0.70 | | |
| Total Toxic Representation | | | | |

ESSENTIAL AND OTHER ELEMENTS

| ELEMENTS | RESULT $\mu\text{g/g}$ | REFERENCE RANGE | PERCENTILE | | | | |
|------------|------------------------|-----------------|-------------------|------------------|------------------|------------------|--------------------|
| | | | 2.5 th | 16 th | 50 th | 84 th | 97.5 th |
| Calcium | 2420 | 300- 1200 | | | | | |
| Magnesium | 180 | 35- 120 | | | | | |
| Sodium | 69 | 20- 250 | | | | | |
| Potassium | 8 | 8- 75 | | | | | |
| Copper | 22 | 11- 37 | | | | | |
| Zinc | 200 | 140- 220 | | | | | |
| Manganese | 0.20 | 0.08- 0.60 | | | | | |
| Chromium | 0.50 | 0.40- 0.65 | | | | | |
| Vanadium | 0.028 | 0.018- 0.065 | | | | | |
| Molybdenum | 0.069 | 0.020- 0.050 | | | | | |
| Boron | 0.67 | 0.25- 1.5 | | | | | |
| Iodine | 0.55 | 0.25- 1.8 | | | | | |
| Lithium | < 0.004 | 0.007- 0.020 | | | | | |
| Phosphorus | 162 | 150- 220 | | | | | |
| Selenium | 0.93 | 0.55- 1.1 | | | | | |
| Strontium | 4.4 | 0.50- 7.6 | | | | | |
| Sulfur | 48700 | 44000- 50000 | | | | | |
| Cobalt | 0.023 | 0.005- 0.040 | | | | | |
| Iron | 13 | 7.0- 16 | | | | | |
| Germanium | 0.037 | 0.030- 0.040 | | | | | |
| Rubidium | 0.008 | 0.007- 0.096 | | | | | |
| Zirconium | 0.99 | 0.020- 0.42 | | | | | |

SPECIMEN DATA

COMMENTS:

Date Collected: 7/31/2009 Sample Size: 0.2 g
 Date Received: 8/5/2009 Sample Type: Head
 Date Completed: 8/6/2009 Hair Color: Brown
 Client Reference: Treatment:
 Methodology: ICP-MS Shampoo: Pantene

V010.08

RATIOS

| ELEMENTS | RATIOS | EXPECTED RANGE |
|----------|--------|----------------|
| Ca/Mg | 13.4 | 4- 30 |
| Ca/P | 14.9 | 1- 12 |
| Na/K | 8.63 | 0.5- 10 |
| Zn/Cu | 9.09 | 4- 20 |
| Zn/Cd | > 999 | > 800 |

Health history for hair test 310

1. Symptoms/health history

fatigue, low energy, depression (began at age 17), sensitive to weeds, difficulty swallowing sometimes (lump on side of throat, moves downward), heat intolerance, difficulty getting to sleep, canker sores since a young age, bruxism, prolapsed cervix in last 4 years, pharyngitis at least twice as a teenager, has always had dry skin, soft teeth, has unknown allergies.

2. Dental history

Wisdom teeth removed in January 1998. Braces at ages 12-14. Had one amalgam in a baby tooth, now gone.

3. Dental work currently in place

Have no amalgams.

4. Mother's dentistry before or during pregnancy

Records are not available, but she could have had amalgams placed during her pregnancy. She had several amalgam fillings in place during the pregnancy.

5. Vaccinations

Flu Shot in January, 1999. Usual vaccinations as a child.

6. Supplements and medications

Armour Thyroid - 60 and 90 mg tablets on alternate days.
Sertraline - 150 mg daily for depression.

7. Age, height, weight

Age 30, Height 5'6", Weight 160 lb.

8. Other relevant information

Mother had allergy shots prior to her pregnancy with me and 1 or 2 during the first trimester. Mother (#203) is mercury toxic, now chelating. I was breast fed and bottle fed.

9. Location

Grand Rapids, Michigan, USA