



PATIENT: Number 816  
 SEX: Female  
 AGE: 20

*Toxic & Essential Elements; Hair*

| TOXIC METALS               |                |                       |   |
|----------------------------|----------------|-----------------------|---|
|                            | RESULT<br>µg/g | REFERENCE<br>INTERVAL | PERCENTILE<br>68 <sup>th</sup> 95 <sup>th</sup> |
| Aluminum (Al)              | 4.8            | < 12                  |   |
| Antimony (Sb)              | 0.024          | < 0.060               |   |
| Arsenic (As)               | 0.046          | < 0.090               |   |
| Barium (Ba)                | 1.4            | < 2.0                 |   |
| Beryllium (Be)             | < 0.01         | < 0.020               |   |
| Bismuth (Bi)               | 0.039          | < 2.0                 |   |
| Cadmium (Cd)               | < 0.009        | < 0.050               |   |
| Lead (Pb)                  | 1.2            | < 1.0                 |   |
| Mercury (Hg)               | 0.29           | < 0.80                |   |
| Platinum (Pt)              | < 0.003        | < 0.005               |   |
| Thallium (Tl)              | < 0.001        | < 0.002               |   |
| Thorium (Th)               | < 0.001        | < 0.002               |   |
| Uranium (U)                | 0.005          | < 0.060               |   |
| Nickel (Ni)                | 0.07           | < 0.40                |   |
| Silver (Ag)                | 0.22           | < 0.10                |   |
| Tin (Sn)                   | 0.04           | < 0.30                |   |
| Titanium (Ti)              | 0.57           | < 1.3                 |   |
| Total Toxic Representation |                |                       |   |

| ESSENTIAL AND OTHER ELEMENTS |                |                       |   |  |  |
|------------------------------|----------------|-----------------------|---|--|--|
|                              | RESULT<br>µg/g | REFERENCE<br>INTERVAL | PERCENTILE<br>2.5 <sup>th</sup> 16 <sup>th</sup> 50 <sup>th</sup> 84 <sup>th</sup> 97.5 <sup>th</sup> |  |  |
| Calcium (Ca)                 | 826            | 475- 1500             |   |  |  |
| Magnesium (Mg)               | 74             | 45- 180               |   |  |  |
| Sodium (Na)                  | 120            | 80- 450               |   |  |  |
| Potassium (K)                | 62             | 28- 160               |   |  |  |
| Copper (Cu)                  | 55             | 11- 30                |   |  |  |
| Zinc (Zn)                    | 160            | 130- 200              |   |  |  |
| Manganese (Mn)               | 0.34           | 0.15- 0.65            |   |  |  |
| Chromium (Cr)                | 0.40           | 0.40- 0.65            |   |  |  |
| Vanadium (V)                 | 0.056          | 0.018- 0.065          |   |  |  |
| Molybdenum (Mo)              | 0.12           | 0.040- 0.10           |   |  |  |
| Boron (B)                    | 12             | 0.40- 4.0             |   |  |  |
| Iodine (I)                   | 0.64           | 0.25- 1.8             |   |  |  |
| Lithium (Li)                 | 0.007          | 0.008- 0.030          |   |  |  |
| Phosphorus (P)               | 387            | 250- 500              |   |  |  |
| Selenium (Se)                | 1.3            | 0.80- 1.3             |   |  |  |
| Strontium (Sr)               | 2.7            | 1.0- 8.0              |   |  |  |
| Sulfur (S)                   | 44500          | 42000- 48000          |   |  |  |
| Cobalt (Co)                  | 0.008          | 0.006- 0.035          |   |  |  |
| Iron (Fe)                    | 8.2            | 7.0- 16               |   |  |  |
| Germanium (Ge)               | 0.028          | 0.030- 0.040          |   |  |  |
| Rubidium (Rb)                | 0.051          | 0.030- 0.25           |   |  |  |
| Zirconium (Zr)               | 0.20           | 0.040- 1.0            |   |  |  |

| SPECIMEN DATA              |                          | RATIOS   |         |
|----------------------------|--------------------------|----------|---------|
| <b>COMMENTS:</b>           |                          | ELEMENTS | RATIOS  |
| Date Collected: 06/15/2013 | Sample Size: 0.2 g       | Ca/Mg    | 11.2    |
| Date Received: 06/24/2013  | Sample Type: Pubic       | Ca/P     | 2.13    |
| Date Completed: 06/25/2013 | Hair Color: Brown        | Na/K     | 1.94    |
| Methodology: ICP/MS        | Treatment:               | Zn/Cu    | 2.91    |
|                            | Shampoo: Avalon Organics | Zn/Cd    | > 999   |
|                            |                          | RANGE    |         |
|                            |                          |          | 4- 30   |
|                            |                          |          | 1- 12   |
|                            |                          |          | 0.5- 10 |
|                            |                          |          | 4- 20   |
|                            |                          |          | > 800   |

## **Health history for hair test 816**

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

An irregular menstrual cycle. Last fall, I experienced severe hair loss and fatigue.

### **Dental history (Wisdom teeth removed and when? Any other extractions. First root canal placed? Braces? First amalgam etc...)**

Braces (2005-2007) and retainer (2007-2008)

### **What dental work do you currently have in place? What part of the dental clean-up have you completed?**

None

### **What dentistry did your mother have at any time before or during pregnancy?**

None

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

DTP (Diphtheria, Tetanus, Pertussis) 6/3/1997, 7/26/1994, 12/6/1993, 3/26/1993

DTP-HIB (Diphtheria, Tetanus, Pertussis, Haemophilus type b) 6/29/1993

HAV ped/adol 2 dose sch (Hepatitis A) 2/15/2011

HBV (Hepatitis B) 7/26/1994, 3/26/1993, 2/9/1993

HIB (Haemophilus influenzae b) 7/26/1994, 12/6/1993, 6/29/1993, 3/26/1993

MEN (Meningococcal, type not specified) 8/21/2009

MMR (Measles, Mumps, Rubella) 6/30/1997, 7/26/1994

POL-OPV (Polio, live virus) 6/3/1997, 7/26/1994, 6/29/1993, 3/26/1993

TB-PPD, (TB skin test) 10/6/2004, 5/16/2003

Td 7yrs-adult (Tetanus, diphtheria) 10/6/2004

Tdap (ADACEL) (Tetanus, diphtheria, acellular pertussis) 2/15/2011

VAR (Varicella, chickenpox) 6/6/1996

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

Green pasture blue ice fermented cod liver oil (1 tbsp)  
Maca organic pure powder (1 tsp)

**What is your age, height and weight?**

20, 5'9, 125

**Other information you feel may be relevant?**

I spent six weeks in China two summers ago and six weeks in the Dominican Republic last summer.

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

Maryland