

PATIENT: Number 598

SEX: Female AGE: 54

Toxic & Essential Elements; Hair

| TOXIC METALS | | | | | | | |
|------------------------|-------|----------------|-----------------------|--|--|--|--|
| | | RESULT μg/g | REFERENCE INTERVAL | PERCENTILE 68 th 95 th | | | |
| Aluminum | (AI) | 1.6 | < 12 | | | | |
| Antimony | (Sb) | 0.018 | < 0.060 | | | | |
| Arsenic | (As) | 0.052 | < 0.090 | | | | |
| Barium | (Ba) | 1.1 | < 2.0 | | | | |
| Beryllium | (Be) | < 0.01 | < 0.020 | | | | |
| Bismuth | (Bi) | 0.057 | < 2.0 | • | | | |
| Cadmium | (Cd) | 0.022 | < 0.050 | | | | |
| Lead | (Pb) | 0.56 | < 1.0 | | | | |
| Mercury | (Hg) | 0.76 | < 0.80 | | | | |
| Platinum | (Pt) | < 0.003 | < 0.005 | | | | |
| Thallium | (TI) | 0.001 | < 0.002 | | | | |
| Thorium | (Th) | < 0.001 | < 0.002 | | | | |
| Uranium | (U) | 0.006 | < 0.060 | | | | |
| Nickel | (Ni) | 0.11 | < 0.40 | | | | |
| Silver | (Ag) | 0.05 | < 0.10 | | | | |
| Tin | (Sn) | 0.05 | < 0.30 | | | | |
| Titanium | (Ti) | 1.7 | < 1.3 | | | | |
| Total Toxic Representa | ntion | • | | | | | |

| Total Toxio Representa | | | | | | | | |
|------------------------------|------|--------|--------------|------------------------------------|--|--|--|--|
| ESSENTIAL AND OTHER ELEMENTS | | | | | | | | |
| | | RESULT | REFERENCE | PERCENTILE | | | | |
| | | μg/g | INTERVAL | 2.5 th 16 th | 50 th 84 th 97.5 th | | | |
| Calcium | (Ca) | 2180 | 475- 1500 | | | | | |
| Magnesium | (Mg) | 170 | 45- 180 | | | | | |
| Sodium | (Na) | 200 | 80- 450 | | | | | |
| Potassium | (K) | 73 | 28- 160 | | | | | |
| Copper | (Cu) | 28 | 11- 30 | | | | | |
| Zinc | (Zn) | 170 | 130- 200 | | | | | |
| Manganese | (Mn) | 1.2 | 0.15- 0.65 | | | | | |
| Chromium | (Cr) | 0.34 | 0.40- 0.65 | | | | | |
| Vanadium | (V) | 0.009 | 0.018- 0.065 | | | | | |
| Molybdenum | (Mo) | 0.075 | 0.040- 0.10 | | | | | |
| Boron | (B) | 2.9 | 0.40- 4.0 | | | | | |
| lodine | (I) | 6.6 | 0.25- 1.8 | | | | | |
| Lithium | (Li) | 0.84 | 0.008- 0.030 | | | | | |
| Phosphorus | (P) | 985 | 250- 500 | | | | | |
| Selenium | (Se) | 0.93 | 0.80- 1.3 | (| | | | |
| Strontium | (Sr) | 9.1 | 1.0- 8.0 | | | | | |
| Sulfur | (S) | 44800 | 42000- 48000 | | • | | | |
| Cobalt | (Co) | 0.049 | 0.006- 0.035 | | | | | |
| Iron | (Fe) | 8.7 | 7.0- 16 | | | | | |
| Germanium | (Ge) | 0.030 | 0.030- 0.040 | | | | | |
| Rubidium | (Rb) | 0.077 | 0.030- 0.25 | | | | | |
| Zirconium | (Zr) | 0.021 | 0.040- 1.0 | | _ | | | |

| SPECIMEN DATA | | | RATIOS | | |
|---------------------------|----------------------|----------|--------|---------|--|
| COMMENTS: | | ELEMENTS | RATIOS | RANGE | |
| | | Ca/Mg | 12.8 | 4- 30 | |
| Date Collected: 1/25/2012 | Sample Size: 0.198 g | Ca/P | 2.21 | 1- 12 | |
| Date Received: 1/30/2012 | Sample Type: Pubic | Na/K | 2.74 | 0.5- 10 | |
| Date Completed: 1/31/2012 | Hair Color: | Zn/Cu | 6.07 | 4- 20 | |
| Methodology: ICP/MS | Treatment: | Zn/Cd | > 999 | > 800 | |
| | Shampoo: | '- | | | |

Health history for hair test 598

Here is my background info.

I have been diagnosed with Lyme Disease, testing positive for Borreliosis and Babesiosis per tests by Igenex. My symptoms started over 14 years ago as migrating joint pain mostly in lower back and left hip but became more neurological accompanied by GI changes including pain. I have tinnitus and vision issues, mostly floaters, but have had light sensitivity at times.

I wore braces for 5 years from 6th through 11th grade. This was back in the late 60s/early 70s (I am 55). I had my four wisdom teeth removed freshman year of college (1975). I have no root canals. I have a recent crown which is ceramic only. I had my 5 or 6 amalgam fillings removed a year ago by a biological dentist who took precautions. I don't have my mother's dental history as she died at age 34 from complications of asthma.

Aside from the above, I have enjoyed good health most of my life. I am 5' 5" and weigh 110 which is the same weight as in college and pretty much have been this weight my entire adult life.

I had the usual childhood vaccines and tetanus shots but not for a long time. I did have hepatitis C vaccines due to my work with blood and urine while a medical technologist in a hospital laboratory back in the early 1980s. I had allergy shots for 14 years until I stopped at age 18. These may or may not have been preserved with thimerosal.

I have taken mostly nutritional supplements for 2 1/2 years and the hair analysis was done in January 2012. The lithium is high due to taking lithium orotate daily. I have taken chlorella and cilantro per the advice of a Lyme doctor, although I stopped that recently. I take natural thyroid and bioidentical female hormones as only prescriptions.

I lived in Boston area for 12 years and relocated back to Chicago 4 1/2 years ago.

I am unsure from these results whether mercury or lead are really behind any of my problems and whether frequent dose chelation is necessary. I did a urine toxic metals test in late fall/early winter using It was 100 mg DMSA in AM, at noon, and in PM. This brought on a terrible reaction (vertigo, brain fog, anxiety, and odd brain sensations) that leads me to believe that I do have an issue. Vertigo and fog are gone but still have odd brain sensations and hypersensitivity to things touching my head such as a pillow or even a hand on my temple or eyebrow, etc.