

HAIR ELEMENTS



PATIENT: Number 305
SEX: Female
AGE: 2
LOCATION: South-central Alaska

POTENTIALLY TOXIC ELEMENTS

| TOXIC ELEMENTS | RESULT $\mu\text{g/g}$ | REFERENCE RANGE | PERCENTILE | |
|----------------------------|------------------------|-----------------|-----------------------------------------------|------------------|
| | | | 68 th | 95 th |
| Aluminum | 44 | < 8.0 | [Bar chart showing result at 68th percentile] | |
| Antimony | 2.5 | < 0.066 | [Bar chart showing result at 68th percentile] | |
| Arsenic | 2.5 | < 0.080 | [Bar chart showing result at 68th percentile] | |
| Barium | 1.6 | < 0.75 | [Bar chart showing result at 68th percentile] | |
| Beryllium | < 0.01 | < 0.020 | [Bar chart showing result at 68th percentile] | |
| Bismuth | 0.031 | < 2.0 | [Bar chart showing result at 68th percentile] | |
| Cadmium | 6.1 | < 0.070 | [Bar chart showing result at 68th percentile] | |
| Lead | 17 | < 1.0 | [Bar chart showing result at 68th percentile] | |
| Mercury | 0.19 | < 0.40 | [Bar chart showing result at 68th percentile] | |
| Platinum | 0.016 | < 0.005 | [Bar chart showing result at 68th percentile] | |
| Thallium | < 0.001 | < 0.002 | [Bar chart showing result at 68th percentile] | |
| Thorium | 0.004 | < 0.002 | [Bar chart showing result at 68th percentile] | |
| Uranium | 0.006 | < 0.060 | [Bar chart showing result at 68th percentile] | |
| Nickel | 0.54 | < 0.30 | [Bar chart showing result at 68th percentile] | |
| Silver | 0.51 | < 0.20 | [Bar chart showing result at 68th percentile] | |
| Tin | 0.92 | < 0.30 | [Bar chart showing result at 68th percentile] | |
| Titanium | 1.6 | < 0.90 | [Bar chart showing result at 68th percentile] | |
| 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 | 142 | 140- 500 | [Bar chart showing result between 16th and 50th percentiles] | | | | |
| Magnesium | 27 | 15- 45 | [Bar chart showing result between 16th and 50th percentiles] | | | | |
| Sodium | 47 | 18- 180 | [Bar chart showing result between 16th and 50th percentiles] | | | | |
| Potassium | 40 | 10- 150 | [Bar chart showing result between 16th and 50th percentiles] | | | | |
| Copper | 14 | 11- 24 | [Bar chart showing result between 16th and 50th percentiles] | | | | |
| Zinc | 69 | 100- 190 | [Bar chart showing result between 16th and 50th percentiles] | | | | |
| Manganese | 2.7 | 0.10- 0.50 | [Bar chart showing result between 16th and 50th percentiles] | | | | |
| Chromium | 1.5 | 0.43- 0.70 | [Bar chart showing result between 16th and 50th percentiles] | | | | |
| Vanadium | 0.24 | 0.030- 0.10 | [Bar chart showing result between 16th and 50th percentiles] | | | | |
| Molybdenum | 0.16 | 0.050- 0.13 | [Bar chart showing result between 16th and 50th percentiles] | | | | |
| Boron | 1.5 | 0.40- 3.5 | [Bar chart showing result between 16th and 50th percentiles] | | | | |
| Iodine | 9.1 | 0.25- 1.3 | [Bar chart showing result between 16th and 50th percentiles] | | | | |
| Lithium | 0.044 | 0.007- 0.020 | [Bar chart showing result between 16th and 50th percentiles] | | | | |
| Phosphorus | 159 | 150- 220 | [Bar chart showing result between 16th and 50th percentiles] | | | | |
| Selenium | 0.81 | 0.70- 1.1 | [Bar chart showing result between 16th and 50th percentiles] | | | | |
| Strontium | 0.41 | 0.19- 2.0 | [Bar chart showing result between 16th and 50th percentiles] | | | | |
| Sulfur | 46200 | 45500- 53000 | [Bar chart showing result between 16th and 50th percentiles] | | | | |
| Cobalt | 0.054 | 0.005- 0.030 | [Bar chart showing result between 16th and 50th percentiles] | | | | |
| Iron | 78 | 7.0- 16 | [Bar chart showing result between 16th and 50th percentiles] | | | | |
| Germanium | 0.031 | 0.030- 0.040 | [Bar chart showing result between 16th and 50th percentiles] | | | | |
| Rubidium | 0.082 | 0.012- 0.16 | [Bar chart showing result between 16th and 50th percentiles] | | | | |
| Zirconium | 0.43 | 0.030- 1.0 | [Bar chart showing result between 16th and 50th percentiles] | | | | |

SPECIMEN DATA

COMMENTS: 1197471
 Date Collected: 7/28/2009 Sample Size: 0.195 g
 Date Received: 8/3/2009 Sample Type: Head
 Date Completed: 8/7/2009 Hair Color: Blond
 Client Reference: Treatment:
 Methodology: ICP-MS Shampoo:

RATIOS

| ELEMENTS | RATIOS | EXPECTED RANGE |
|----------|--------|----------------|
| Ca/Mg | 5.26 | 4- 30 |
| Ca/P | 0.893 | 1- 12 |
| Na/K | 1.18 | 0.5- 10 |
| Zn/Cu | 4.93 | 4- 20 |
| Zn/Cd | 11.3 | > 800 |

V010.08



PATIENT: Number 305 Follow up test

SEX: Female

AGE: 5

Toxic & Essential Elements; Hair

| TOXIC METALS | | | |
|----------------------------|----------------|-----------------------|-------------------------------------------------|
| | RESULT µg/g | REFERENCE INTERVAL | PERCENTILE 68 th 95 th |
| Aluminum (Al) | 17 | < 8.0 | |
| Antimony (Sb) | 0.038 | < 0.066 | |
| Arsenic (As) | 0.14 | < 0.080 | |
| Barium (Ba) | 0.42 | < 0.75 | |
| Beryllium (Be) | < 0.01 | < 0.020 | |
| Bismuth (Bi) | 0.19 | < 2.0 | |
| Cadmium (Cd) | 0.22 | < 0.070 | |
| Lead (Pb) | 0.61 | < 1.0 | |
| Mercury (Hg) | 1.5 | < 0.40 | |
| Platinum (Pt) | < 0.003 | < 0.005 | |
| Thallium (Tl) | < 0.001 | < 0.002 | |
| Thorium (Th) | 0.001 | < 0.002 | |
| Uranium (U) | 0.002 | < 0.060 | |
| Nickel (Ni) | 0.09 | < 0.30 | |
| Silver (Ag) | 0.10 | < 0.20 | |
| Tin (Sn) | 0.19 | < 0.30 | |
| Titanium (Ti) | 0.55 | < 0.90 | |
| Total Toxic Representation | | | |

| ESSENTIAL AND OTHER ELEMENTS | | | | | |
|------------------------------|----------------|-----------------------|-------------------------------------------------------------------------------------------------------|--|--|
| | RESULT µg/g | REFERENCE INTERVAL | PERCENTILE 2.5 th 16 th 50 th 84 th 97.5 th | | |
| Calcium (Ca) | 159 | 140- 500 | | | |
| Magnesium (Mg) | 100 | 15- 45 | | | |
| Sodium (Na) | 41 | 18- 180 | | | |
| Potassium (K) | 20 | 10- 150 | | | |
| Copper (Cu) | 9.6 | 11- 24 | | | |
| Zinc (Zn) | 190 | 100- 190 | | | |
| Manganese (Mn) | 0.75 | 0.10- 0.50 | | | |
| Chromium (Cr) | 0.43 | 0.43- 0.70 | | | |
| Vanadium (V) | 0.082 | 0.030- 0.10 | | | |
| Molybdenum (Mo) | 0.048 | 0.050- 0.13 | | | |
| Boron (B) | 0.69 | 0.40- 3.5 | | | |
| Iodine (I) | 0.40 | 0.25- 1.3 | | | |
| Lithium (Li) | 0.013 | 0.007- 0.020 | | | |
| Phosphorus (P) | 158 | 150- 220 | | | |
| Selenium (Se) | 0.56 | 0.70- 1.1 | | | |
| Strontium (Sr) | 0.30 | 0.19- 2.0 | | | |
| Sulfur (S) | 48100 | 45500- 53000 | | | |
| Cobalt (Co) | 0.017 | 0.005- 0.030 | | | |
| Iron (Fe) | 28 | 7.0- 16 | | | |
| Germanium (Ge) | 0.030 | 0.030- 0.040 | | | |
| Rubidium (Rb) | 0.029 | 0.012- 0.16 | | | |
| Zirconium (Zr) | 0.90 | 0.030- 1.0 | | | |

| SPECIMEN DATA | | RATIOS | | |
|---------------------------|------------------------|-----------------|---------------|--------------|
| COMMENTS: | | ELEMENTS | RATIOS | RANGE |
| Date Collected: 8/12/2012 | Sample Size: 0.203 g | Ca/Mg | 1.59 | 4- 30 |
| Date Received: 8/17/2012 | Sample Type: Head | Ca/P | 1.01 | 1- 12 |
| Date Completed: 8/19/2012 | Hair Color: Blond | Na/K | 2.05 | 0.5- 10 |
| Methodology: ICP/MS | Treatment: | Zn/Cu | 19.8 | 4- 20 |
| | Shampoo: Dawn Dishsoap | Zn/Cd | 864 | > 800 |

Health history for hair test 305 -First test

1) What are your current symptoms and health history? This test is for my just turned 2 yo daughter. She was born with multiple food and chemical sensitivities. She is prone to eczema and rashes, GI problems, poor dental enamel, and in the past suffered obvious malabsorption. She is still 80% breastfed. We are grain, dairy and soy free.

2) Dental history (wisdom teeth removed? First root canal placed? Braces? First amalgam

etc...) She has crumbling front top teeth. No interventions except for brushing and fluoride treatments (recently stopped). I however have 8 amalgams from my childhood. I am 38 years old.

3) What dental work do you currently have in place? What part of the dental cleanup have you

completed? I do not plan to have my amalgams replaced until I'm done childbearing/nursing.

4) What dentistry did your mother have at any time before or during pregnancy?

5) What vaccinations have you had and when (including flu and especially travel shots)? I was normally vaxed in the 70s. My child is completely unvaxed.

6) Supplements and medications (including dosages) taken at time of hair test, or for the 3-6

months before the sample was taken. Taslyn was taking zinc, D3, K2, DHA, several homeopathic cell salts, probiotics. I have been using a slew of vitamins and minerals, plus things like methionine, glutathione, NAC and high dose probiotics. I used ALA for a time until I was better informed.

7) Other information you feel may be relevant? I am unsure of how much metal I was exposed to while working parttime in a pottery studio for several years. We drink water from a hand dug spring and are testing the water extensively this week. Firearms and ammunition are centerpieces in our lifestyle. My husband is a pilot, flying small aircraft which still use leaded gas. We are testing my husbands hair this week. I, however, am breastfeeding, so can't test at this time.

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

prevalent). I've been in off road/off grid in southcentral Alaska since 1991. I grew up on ranchland in southcentral Montana.