

| POTENTIALLY TOXIC ELEMENTS   |                |                    |                   |                  |                  |                  |                    |
|------------------------------|----------------|--------------------|-------------------|------------------|------------------|------------------|--------------------|
| TOXIC<br>ELEMENTS            | RESULT<br>µg/g | REFERENCE<br>RANGE | PERCENTILE        |                  |                  |                  |                    |
|                              |                |                    | 68 <sup>th</sup>  | 95 <sup>th</sup> |                  |                  |                    |
| Aluminum                     | 3.5            | < 7.0              | <div></div>       |                  |                  |                  |                    |
| Antimony                     | 0.047          | < 0.066            | <div></div>       |                  |                  |                  |                    |
| Arsenic                      | 0.064          | < 0.080            | <div></div>       |                  |                  |                  |                    |
| Barium                       | 0.07           | < 1.0              | <div></div>       |                  |                  |                  |                    |
| Beryllium                    | < 0.01         | < 0.020            |                   |                  |                  |                  |                    |
| Bismuth                      | 3.7            | < 2.0              | <div></div>       |                  |                  |                  |                    |
| Cadmium                      | 0.016          | < 0.065            | <div></div>       |                  |                  |                  |                    |
| Lead                         | 0.10           | < 0.80             | <div></div>       |                  |                  |                  |                    |
| Mercury                      | 1.8            | < 0.80             | <div></div>       |                  |                  |                  |                    |
| Platinum                     | < 0.003        | < 0.005            |                   |                  |                  |                  |                    |
| Thallium                     | 0.001          | < 0.002            | <div></div>       |                  |                  |                  |                    |
| Thorium                      | < 0.001        | < 0.002            |                   |                  |                  |                  |                    |
| Uranium                      | 0.005          | < 0.060            | <div></div>       |                  |                  |                  |                    |
| Nickel                       | 0.08           | < 0.20             | <div></div>       |                  |                  |                  |                    |
| Silver                       | 0.02           | < 0.08             | <div></div>       |                  |                  |                  |                    |
| Tin                          | 0.05           | < 0.30             | <div></div>       |                  |                  |                  |                    |
| Titanium                     | 0.72           | < 0.60             | <div></div>       |                  |                  |                  |                    |
| Total Toxic Representation   |                |                    | <div></div>       |                  |                  |                  |                    |
| ESSENTIAL AND OTHER ELEMENTS |                |                    |                   |                  |                  |                  |                    |
| ELEMENTS                     | RESULT<br>µg/g | REFERENCE<br>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                      | 289            | 200 - 750          |                   |                  | <div></div>      |                  |                    |
| Magnesium                    | 30             | 25 - 75            |                   |                  | <div></div>      |                  |                    |
| Sodium                       | 8              | 20 - 180           | <div></div>       |                  |                  |                  |                    |
| Potassium                    | 8              | 9 - 80             |                   | <div></div>      |                  |                  |                    |
| Copper                       | 12             | 11 - 30            |                   |                  | <div></div>      |                  |                    |
| Zinc                         | 180            | 130 - 200          |                   |                  | <div></div>      |                  |                    |
| Manganese                    | 0.08           | 0.08 - 0.50        |                   |                  | <div></div>      |                  |                    |
| Chromium                     | 0.56           | 0.40 - 0.70        |                   |                  | <div></div>      |                  |                    |
| Vanadium                     | 0.057          | 0.018 - 0.065      |                   |                  | <div></div>      |                  |                    |
| Molybdenum                   | 0.034          | 0.025 - 0.060      |                   |                  | <div></div>      |                  |                    |
| Boron                        | 1.7            | 0.40 - 3.0         |                   |                  | <div></div>      |                  |                    |
| Iodine                       | 0.36           | 0.25 - 1.8         |                   |                  | <div></div>      |                  |                    |
| Lithium                      | < 0.004        | 0.007 - 0.020      | <div></div>       |                  |                  |                  |                    |
| Phosphorus                   | 219            | 150 - 220          |                   |                  | <div></div>      |                  |                    |
| Selenium                     | 1.0            | 0.70 - 1.2         |                   |                  | <div></div>      |                  |                    |
| Strontium                    | 0.14           | 0.30 - 3.5         | <div></div>       |                  |                  |                  |                    |
| Sulfur                       | 45800          | 44000 - 50000      |                   |                  | <div></div>      |                  |                    |
| Cobalt                       | 0.006          | 0.004 - 0.020      |                   |                  | <div></div>      |                  |                    |
| Iron                         | 8.9            | 7.0 - 16           |                   |                  | <div></div>      |                  |                    |
| Germanium                    | 0.029          | 0.030 - 0.040      |                   |                  | <div></div>      |                  |                    |
| Rubidium                     | 0.005          | 0.011 - 0.12       | <div></div>       |                  |                  |                  |                    |
| Zirconium                    | 0.68           | 0.020 - 0.44       |                   |                  | <div></div>      |                  |                    |
| SPECIMEN DATA                |                |                    |                   | RATIOS           |                  |                  |                    |
| COMMENTS:                    |                |                    |                   | ELEMENTS         | RATIOS           | EXPECTED RANGE   |                    |
| Date Collected: 2/15/2011    |                | Sample Size:       | 0.204 g           | Ca/Mg            | 9.63             | 4 - 30           |                    |
| Date Received: 2/23/2011     |                | Sample Type:       | Head              | Ca/P             | 1.32             | 0.8 - 8          |                    |
| Date Completed: 2/26/2011    |                | Hair Color:        |                   | Na/K             | 1                | 0.5 - 10         |                    |
| Client Reference: 1013493    |                | Treatment:         |                   | Zn/Cu            | 15               | 4 - 20           |                    |
| Methodology: ICP-MS          |                | Shampoo:           |                   | Zn/Cd            | > 999            | > 800            |                    |
|                              |                |                    |                   | V10.08           |                  |                  |                    |



# POTENTIALLY TOXIC METALS

| METALS     | RESULT<br>µg/g creat | REFERENCE<br>RANGE | WITHIN<br>REFERENCE RANGE | ELEVATED | VERY<br>ELEVATED |
|------------|----------------------|--------------------|---------------------------|----------|------------------|
| Aluminum   | 6.7                  | < 25               | <div></div>               |          |                  |
| Antimony   | < dl                 | < 0.3              | <div></div>               |          |                  |
| Arsenic    | 12                   | < 108              | <div></div>               |          |                  |
| Barium     | 2.1                  | < 7                | <div></div>               |          |                  |
| Beryllium  | < dl                 | < 1                | <div></div>               |          |                  |
| Bismuth    | 0.2                  | < 10               | <div></div>               |          |                  |
| Cadmium    | 0.1                  | < 0.8              | <div></div>               |          |                  |
| Cesium     | 4.4                  | < 9                | <div></div>               |          |                  |
| Gadolinium | < dl                 | < 0.3              | <div></div>               |          |                  |
| Lead       | 11                   | < 2                | <div></div>               |          |                  |
| Mercury    | 10                   | < 3                | <div></div>               |          |                  |
| Nickel     | 2                    | < 10               | <div></div>               |          |                  |
| Palladium  | < dl                 | < 0.3              | <div></div>               |          |                  |
| Platinum   | < dl                 | < 1                | <div></div>               |          |                  |
| Tellurium  | < dl                 | < 0.8              | <div></div>               |          |                  |
| Thallium   | 0.3                  | < 0.5              | <div></div>               |          |                  |
| Thorium    | < dl                 | < 0.03             | <div></div>               |          |                  |
| Tin        | 0.4                  | < 9                | <div></div>               |          |                  |
| Titanium   | N/A                  | < 15               | <div></div>               |          |                  |
| Tungsten   | 0.2                  | < 0.4              | <div></div>               |          |                  |
| Uranium    | < dl                 | < 0.03             | <div></div>               |          |                  |

## URINE CREATININE

|            | RESULT<br>mg/dL | REFERENCE<br>RANGE | 2SD LOW     | 1SD LOW | MEAN | 1SD HIGH | 2SD HIGH |
|------------|-----------------|--------------------|-------------|---------|------|----------|----------|
| Creatinine | 36.6            | 45 - 225           | <div></div> |         |      |          |          |

## SPECIMEN DATA

Comments:

Date Collected: 4/8/2011

Date Received: 4/13/2011

Date Completed: 4/16/2011

Method: ICP-MS

pH upon receipt: Acceptable

<dl: less than detection limit

Provoking Agent: DMSA EDTA DMPS

Collection Period: timed: 6 hours

Volume: 1800 ml

Provocation:

Toxic metals are reported as µg/g creatinine to account for urine dilution variations. **Reference ranges are representative of a healthy population under non-challenge or non-provoked conditions.** No safe reference levels for toxic metals have been established.

V12



# URINE ESSENTIAL ELEMENTS

Specializing in Integrative Diagnostic Testing

Tel: (425) 271-8689  
Fax: (425) 271-8674

SEX: Male  
AGE: 28

## ESSENTIAL ELEMENTS

| ELEMENTS   | RESULT<br>mEq/mg creat | REFERENCE<br>RANGE | PERCENTILE                        |                  |                  |                  |                    |
|------------|------------------------|--------------------|-----------------------------------|------------------|------------------|------------------|--------------------|
|            |                        |                    | 2.5 <sup>th</sup>                 | 16 <sup>th</sup> | 50 <sup>th</sup> | 84 <sup>th</sup> | 97.5 <sup>th</sup> |
| Sodium     | 40                     | 39- 217            |                                   |                  |                  |                  |                    |
| Potassium  | 55                     | 19- 77             |                                   |                  |                  |                  |                    |
|            | µg/mg creat            |                    |                                   |                  |                  |                  |                    |
| Phosphorus | 440                    | 200- 1000          |                                   |                  |                  |                  |                    |
| Calcium    | 31                     | 30- 250            |                                   |                  |                  |                  |                    |
| Magnesium  | 45                     | 20- 230            |                                   |                  |                  |                  |                    |
| Zinc       | 0.9                    | 0.1- 1.5           |                                   |                  |                  |                  |                    |
| Copper     | 0.092                  | 0.007- 0.07        |                                   |                  |                  |                  |                    |
| Sulfur     | 440                    | 275- 1210          |                                   |                  |                  |                  |                    |
| Manganese  | 0.0009                 | 0.0005- 0.008      |                                   |                  |                  |                  |                    |
| Molybdenum | 0.019                  | 0.015- 0.16        |                                   |                  |                  |                  |                    |
| Boron      | 1.1                    | 0.6- 6.1           |                                   |                  |                  |                  |                    |
| Chromium   | 0.0008                 | 0.0005- 0.01       |                                   |                  |                  |                  |                    |
| Lithium    | 0.13                   | 0.007- 0.18        |                                   |                  |                  |                  |                    |
| Selenium   | 0.066                  | 0.03- 0.26         |                                   |                  |                  |                  |                    |
| Strontium  | 0.064                  | 0.04- 0.36         |                                   |                  |                  |                  |                    |
| Vanadium   | 0.0006                 | 0.0002- 0.004      |                                   |                  |                  |                  |                    |
|            |                        |                    | 68 <sup>th</sup> 95 <sup>th</sup> |                  |                  |                  |                    |
| Cobalt     | < dl                   | < 0.007            |                                   |                  |                  |                  |                    |
| Iron       | < dl                   | < 2                |                                   |                  |                  |                  |                    |

## URINE CREATININE

|            | RESULT<br>mg/dL | REFERENCE<br>RANGE | 2SD LOW | 1SD LOW | MEAN | 1SD HIGH | 2SD HIGH |
|------------|-----------------|--------------------|---------|---------|------|----------|----------|
| Creatinine | 36.6            | 45- 225            |         |         |      |          |          |

## SPECIMEN DATA

### Comments:

Date Collected: 4/8/2011 pH Upon Receipt: **Acceptable** Collection Period: **timed: 6 hours**  
 Date Received: 4/13/2011 <dl: **less than detection limit** Volume: **1800 ml**  
 Date Completed: 4/16/2011 Provoking Agent: **DMSA EDTA DMPS** Provocation:  
 Method: ISE; Na, K Spectrophotometry; P ICP-MS; B, Ca, Cr, Co, Cu, Fe, Mg, Mn, Mo, Se, Sr, S, V, Zn Creatinine by Jaffe Method

Essential elements are reported per mg creatinine to account for urine dilution variations. **Reference ranges are representative of a healthy population under non-challenge or non-provoked conditions.** Detoxification therapies can cause significant elevations of certain essential element levels (e.g. Cu, Zn).

V12

# Toxic Metals; Urine

| TOXIC METALS |      |                      |                       |                     |                   |
|--------------|------|----------------------|-----------------------|---------------------|-------------------|
|              |      | RESULT<br>µg/g creat | REFERENCE<br>INTERVAL | WITHIN<br>REFERENCE | OUTSIDE REFERENCE |
| Aluminum     | (Al) | < dl                 | < 25                  |                     |                   |
| Antimony     | (Sb) | 0.2                  | < 0.3                 |                     |                   |
| Arsenic      | (As) | 9.4                  | < 10.0                |                     |                   |
| Barium       | (Ba) | 0.6                  | < 7                   |                     |                   |
| Beryllium    | (Be) | < dl                 | < 1                   |                     |                   |
| Bismuth      | (Bi) | 0.1                  | < 10                  |                     |                   |
| Cadmium      | (Cd) | 0.1                  | < 0.8                 |                     |                   |
| Cesium       | (Cs) | 5.9                  | < 9                   |                     |                   |
| Gadolinium   | (Gd) | < dl                 | < 0.3                 |                     |                   |
| Lead         | (Pb) | 18                   | < 2                   |                     |                   |
| Mercury      | (Hg) | 11                   | < 3                   |                     |                   |
| Nickel       | (Ni) | 1.5                  | < 10                  |                     |                   |
| Palladium    | (Pd) | < dl                 | < 0.3                 |                     |                   |
| Platinum     | (Pt) | < dl                 | < 1                   |                     |                   |
| Tellurium    | (Te) | < dl                 | < 0.8                 |                     |                   |
| Thallium     | (Tl) | 0.3                  | < 0.5                 |                     |                   |
| Thorium      | (Th) | < dl                 | < 0.03                |                     |                   |
| Tin          | (Sn) | 0.5                  | < 9                   |                     |                   |
| Tungsten     | (W)  | < dl                 | < 0.4                 |                     |                   |
| Uranium      | (U)  | < dl                 | < 0.03                |                     |                   |

| URINE CREATININE |                 |                       |      |      |      |
|------------------|-----------------|-----------------------|------|------|------|
|                  | RESULT<br>mg/dL | REFERENCE<br>INTERVAL | -2SD | -1SD | NEAN |
| Creatinine       | 33.7            | 45 - 225              |      |      |      |

| INFORMED DATA   |           |                  |                           |                    |                  |
|---|-----------|------------------|---------------------------|--------------------|------------------|
| Comments:   |           |                  |                           |                    |                  |
| Date Collected:   | 4/26/2012 | pH upon receipt: | Acceptable                | Collection Period: | timed; 6 hours   |
| Date Received:  | 5/7/2012  | <dl              | less than detection limit | Volume:            | 2000 ml          |
| Date Completed:   | 5/11/2012 | Provoking Agent: | DMSA                      | Provocation:       | POST PROVOCATIVE |
| Method:   | ICP-MS    | Creatinine by    | Jaffe Method              |                    |                  |
| Results are creatinine corrected to account for urine dilution variations. Reference intervals and corresponding graphs are representative of a healthy population under non-provoked conditions. Chelation (provocation) agents can increase urinary excretion of metals/elements. |           |                  |                           |                    |                  |



SEX: Male  
AGE: 32

## Toxic & Essential Elements; Hair

| TOXIC METALS               |      |                |                       |                  |                  |
|----------------------------|------|----------------|-----------------------|------------------|------------------|
|                            |      | RESULT<br>μg/g | REFERENCE<br>INTERVAL | PERCENTILE       |                  |
|                            |      |                |                       | 68 <sup>th</sup> | 95 <sup>th</sup> |
| Aluminum                   | (Al) | 4.4            | < 7.0                 |                  |                  |
| Antimony                   | (Sb) | 0.052          | < 0.066               |                  |                  |
| Arsenic                    | (As) | 0.046          | < 0.080               |                  |                  |
| Barium                     | (Ba) | 0.42           | < 1.0                 |                  |                  |
| Beryllium                  | (Be) | < 0.01         | < 0.020               |                  |                  |
| Bismuth                    | (Bi) | 0.093          | < 2.0                 |                  |                  |
| Cadmium                    | (Cd) | 0.025          | < 0.065               |                  |                  |
| Lead                       | (Pb) | 0.19           | < 0.80                |                  |                  |
| Mercury                    | (Hg) | 0.48           | < 0.80                |                  |                  |
| Platinum                   | (Pt) | < 0.003        | < 0.005               |                  |                  |
| Thallium                   | (Tl) | < 0.001        | < 0.002               |                  |                  |
| Thorium                    | (Th) | < 0.001        | < 0.002               |                  |                  |
| Uranium                    | (U)  | 0.006          | < 0.060               |                  |                  |
| Nickel                     | (Ni) | 0.16           | < 0.20                |                  |                  |
| Silver                     | (Ag) | 0.02           | < 0.08                |                  |                  |
| Tin                        | (Sn) | 0.06           | < 0.30                |                  |                  |
| Titanium                   | (Ti) | 0.57           | < 0.60                |                  |                  |
| Total Toxic Representation |      |                |                       |                  |                  |

| ESSENTIAL AND OTHER ELEMENTS |      |                |                       |                   |                  |                  |                  |                    |
|------------------------------|------|----------------|-----------------------|-------------------|------------------|------------------|------------------|--------------------|
|                              |      | RESULT<br>μg/g | REFERENCE<br>INTERVAL | PERCENTILE        |                  |                  |                  |                    |
|                              |      |                |                       | 2.5 <sup>th</sup> | 16 <sup>th</sup> | 50 <sup>th</sup> | 84 <sup>th</sup> | 97.5 <sup>th</sup> |
| Calcium                      | (Ca) | 389            | 200– 750              |                   |                  |                  |                  |                    |
| Magnesium                    | (Mg) | 30             | 25– 75                |                   |                  |                  |                  |                    |
| Sodium                       | (Na) | 24             | 20– 180               |                   |                  |                  |                  |                    |
| Potassium                    | (K)  | 8              | 9– 80                 |                   |                  |                  |                  |                    |
| Copper                       | (Cu) | 15             | 11– 30                |                   |                  |                  |                  |                    |
| Zinc                         | (Zn) | 200            | 130– 200              |                   |                  |                  |                  |                    |
| Manganese                    | (Mn) | 0.18           | 0.08– 0.50            |                   |                  |                  |                  |                    |
| Chromium                     | (Cr) | 0.45           | 0.40– 0.70            |                   |                  |                  |                  |                    |
| Vanadium                     | (V)  | 0.033          | 0.018– 0.065          |                   |                  |                  |                  |                    |
| Molybdenum                   | (Mo) | 0.044          | 0.025– 0.060          |                   |                  |                  |                  |                    |
| Boron                        | (B)  | 0.47           | 0.40– 3.0             |                   |                  |                  |                  |                    |
| Iodine                       | (I)  | 0.47           | 0.25– 1.8             |                   |                  |                  |                  |                    |
| Lithium                      | (Li) | 0.005          | 0.007– 0.020          |                   |                  |                  |                  |                    |
| Phosphorus                   | (P)  | 168            | 150– 220              |                   |                  |                  |                  |                    |
| Selenium                     | (Se) | 1.1            | 0.70– 1.2             |                   |                  |                  |                  |                    |
| Strontium                    | (Sr) | 1.6            | 0.30– 3.5             |                   |                  |                  |                  |                    |
| Sulfur                       | (S)  | 45700          | 44000– 50000          |                   |                  |                  |                  |                    |
| Cobalt                       | (Co) | 0.022          | 0.004– 0.020          |                   |                  |                  |                  |                    |
| Iron                         | (Fe) | 7.7            | 7.0– 16               |                   |                  |                  |                  |                    |
| Germanium                    | (Ge) | 0.033          | 0.030– 0.040          |                   |                  |                  |                  |                    |
| Rubidium                     | (Rb) | 0.012          | 0.011– 0.12           |                   |                  |                  |                  |                    |
| Zirconium                    | (Zr) | 0.073          | 0.020– 0.44           |                   |                  |                  |                  |                    |

| SPECIMEN DATA              |  | RATIOS   |        |         |
|----------------------------|--|----------|--------|---------|
| COMMENTS:                  |  | ELEMENTS | RATIOS | RANGE   |
| Date Collected: 05/04/2015 |  | Ca/Mg    | 13     | 4– 30   |
| Date Received: 05/08/2015  |  | Ca/P     | 2.32   | 0.8– 8  |
| Date Completed: 05/09/2015 |  | Na/K     | 3      | 0.5– 10 |
| Methodology: ICP/MS        |  | Zn/Cu    | 13.3   | 4– 20   |
| Sample Size: 0.204 g       |  | Zn/Cd    | > 999  | > 800   |
| Sample Type: Head          |  |          |        |         |
| Hair Color: Brown          |  |          |        |         |
| Treatment:                 |  |          |        |         |
| Shampoo: Nioxin            |  |          |        |         |





FOLLOW-UP 624

SEX: Male

AGE: 34

# Toxic & Essential Elements; Hair

| TOXIC METALS               |      |                |                       |                  |                  |
|----------------------------|------|----------------|-----------------------|------------------|------------------|
|                            |      | RESULT<br>μg/g | REFERENCE<br>INTERVAL | PERCENTILE       |                  |
|                            |      |                |                       | 68 <sup>th</sup> | 95 <sup>th</sup> |
| Aluminum                   | (Al) | 1.3            | < 7.0                 |                  |                  |
| Antimony                   | (Sb) | < 0.01         | < 0.066               |                  |                  |
| Arsenic                    | (As) | 0.043          | < 0.080               |                  |                  |
| Barium                     | (Ba) | 0.05           | < 1.0                 |                  |                  |
| Beryllium                  | (Be) | < 0.01         | < 0.020               |                  |                  |
| Bismuth                    | (Bi) | 0.004          | < 2.0                 |                  |                  |
| Cadmium                    | (Cd) | 0.016          | < 0.065               |                  |                  |
| Lead                       | (Pb) | 0.16           | < 0.80                |                  |                  |
| Mercury                    | (Hg) | 0.38           | < 0.80                |                  |                  |
| Platinum                   | (Pt) | < 0.003        | < 0.005               |                  |                  |
| Thallium                   | (Tl) | 0.001          | < 0.002               |                  |                  |
| Thorium                    | (Th) | < 0.001        | < 0.002               |                  |                  |
| Uranium                    | (U)  | 0.004          | < 0.060               |                  |                  |
| Nickel                     | (Ni) | 0.03           | < 0.20                |                  |                  |
| Silver                     | (Ag) | 0.02           | < 0.08                |                  |                  |
| Tin                        | (Sn) | 0.06           | < 0.30                |                  |                  |
| Titanium                   | (Ti) | 0.28           | < 0.60                |                  |                  |
| Total Toxic Representation |      |                |                       |                  |                  |

| ESSENTIAL AND OTHER ELEMENTS |      |                |                       |                   |                  |                  |                  |                    |
|------------------------------|------|----------------|-----------------------|-------------------|------------------|------------------|------------------|--------------------|
|                              |      | RESULT<br>μg/g | REFERENCE<br>INTERVAL | PERCENTILE        |                  |                  |                  |                    |
|                              |      |                |                       | 2.5 <sup>th</sup> | 16 <sup>th</sup> | 50 <sup>th</sup> | 84 <sup>th</sup> | 97.5 <sup>th</sup> |
| Calcium                      | (Ca) | 331            | 200– 750              |                   |                  |                  |                  |                    |
| Magnesium                    | (Mg) | 100            | 25– 75                |                   |                  |                  |                  |                    |
| Sodium                       | (Na) | 18             | 20– 180               |                   |                  |                  |                  |                    |
| Potassium                    | (K)  | 4              | 9– 80                 |                   |                  |                  |                  |                    |
| Copper                       | (Cu) | 11             | 11– 30                |                   |                  |                  |                  |                    |
| Zinc                         | (Zn) | 180            | 130– 200              |                   |                  |                  |                  |                    |
| Manganese                    | (Mn) | 0.06           | 0.08– 0.50            |                   |                  |                  |                  |                    |
| Chromium                     | (Cr) | 0.37           | 0.40– 0.70            |                   |                  |                  |                  |                    |
| Vanadium                     | (V)  | 0.027          | 0.018– 0.065          |                   |                  |                  |                  |                    |
| Molybdenum                   | (Mo) | 0.023          | 0.025– 0.060          |                   |                  |                  |                  |                    |
| Boron                        | (B)  | 0.55           | 0.40– 3.0             |                   |                  |                  |                  |                    |
| Iodine                       | (I)  | 0.25           | 0.25– 1.8             |                   |                  |                  |                  |                    |
| Lithium                      | (Li) | < 0.004        | 0.007– 0.020          |                   |                  |                  |                  |                    |
| Phosphorus                   | (P)  | 151            | 150– 220              |                   |                  |                  |                  |                    |
| Selenium                     | (Se) | 0.70           | 0.70– 1.2             |                   |                  |                  |                  |                    |
| Strontium                    | (Sr) | 1.6            | 0.30– 3.5             |                   |                  |                  |                  |                    |
| Sulfur                       | (S)  | 46800          | 44000– 50000          |                   |                  |                  |                  |                    |
| Cobalt                       | (Co) | 0.010          | 0.004– 0.020          |                   |                  |                  |                  |                    |
| Iron                         | (Fe) | 4.1            | 7.0– 16               |                   |                  |                  |                  |                    |
| Germanium                    | (Ge) | 0.033          | 0.030– 0.040          |                   |                  |                  |                  |                    |
| Rubidium                     | (Rb) | 0.005          | 0.011– 0.12           |                   |                  |                  |                  |                    |
| Zirconium                    | (Zr) | 0.021          | 0.020– 0.44           |                   |                  |                  |                  |                    |

| SPECIMEN DATA              |  | RATIOS   |        |         |
|----------------------------|--|----------|--------|---------|
| COMMENTS:                  |  | ELEMENTS | RATIOS | RANGE   |
| Date Collected: 03/14/2017 |  | Ca/Mg    | 3.31   | 4– 30   |
| Date Received: 03/18/2017  |  | Ca/P     | 2.19   | 0.8– 8  |
| Date Completed: 03/23/2017 |  | Na/K     | 4.5    | 0.5– 10 |
| Methodology: ICP/MS        |  | Zn/Cu    | 16.4   | 4– 20   |
| Sample Size: 0.201 g       |  | Zn/Cd    | > 999  | > 800   |
| Sample Type: Head          |  |          |        |         |
| Hair Color: Brown          |  |          |        |         |
| Treatment:                 |  |          |        |         |
| Shampoo: 365               |  |          |        |         |

## **Health history for hair test 624**

Summary: After 3 years of illness and 2 boggled doctors (naturopaths) I am grateful to find this group! My docs could not figure out why I had developed severe digestive and energy/mental problems and I've been supplementing HCl and other enzymes for 2+ yrs now and they still don't have answers for me. I'm hopeful this program can help my problems with allergies, digestion, energy/motivation.

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

Current: I've gained 30 lbs back in the last year and half and am doing much better, especially since (completely stopping the 600mg of ALA) and the last 15 additional lbs came on the last ~4mos. it seems (though I'd rather be back down 20lbs. I'm 5'9 male, 190lbs.) Digestive problems, cannot digest food without HCl. Food intolerances (gluten, dairy sometimes, processed foods generally, nuts/seeds it seems). Low energy/motivation. Thyroid TSH recently (05\_2012) measured 2.468 (2.5 is high). WBC lowish (4.29; 4.0-11.0 norm) MCHC high? (36.1; 32-36 norm)

High DHEA-S (500; 80-560 norm) yet low Free Testosterone (54; 46-224 norm).

History: I'm a 29yo male. I developed severe hayfever type allergies around age 6 or 7 and started taking Claritin D and allergy shots/injections weekly/bi-weekly for ~10yrs, sometimes only for 6 mos./yr in allergy season.

In 2006 I moved into a Seattle house built in 1910. Landlord gave me the required pamphlet about lead pipe possibility, I discarded it. About Jan 2009 I started a paleolithic (zone proportioned) diet and crossfit conditioning (5-6 days/wk intense workout) and lost 30 lbs. over 6 mos. (Went down to 160lbs.) Around this peak weight loss (I may have started 200mg ALA at this time too, I can't remember) I started to be unable to digest even Paleolithic foods I was eating, onions, eggs, beef, gluten exposure became very severe (illness, brain fog, etc.). Brain fog became the norm, I quit the gym (11\_2009) blaming overtraining and maybe adrenal fatigue. I lost most motivation for hobbies/exercise, only wanted to rest and get better. After months of rest I was STILL lethargic, couldn't digest and had brain fog.

I tried to help myself by taking a list of generally recommended anti-oxidants (Vit. C, E, Coq10, acetyl-L-Carnitine, AND 600mg of ALA . . . things were not getting better, I was certain I was getting worse. It "seemed" that I was feeling worse on days I took my supplements so I didn't very often. (Obvious now as to why!) (ALA and ALC were taken together on an empty stomach in the morning.)

I went to a naturopath (Nat.1) (04\_2010) who prescribed stomach acid, it helped. Bloodwork was disturbingly normal (I wanted a diagnosis!) except low WBC (3.3;4.0-10), low 'Polys-auto'? (1.45; 2.0-7.5) High DHEA S04 @590 (160-449 norm) yet low free testosterone (10.2; 7.9-25.0). I did saliva cortisol test which were 'norm' (7:15am-.19/ug/dL; 11:20am-.12; 4pm-.093; 11:49pm-.014).

10\_2010: I move out of house built in 1910 likely with lead pipes to apt built in 1984.

01\_2011: Frustrated with vague diagnosis went to a new naturopath (Nat.2), showed him my bloodwork he told me I was fine, terrified by this, I pleaded that I was not! He said if I wanted I could do thyroid, hair test, allergy Igg test, etc. I did a thyroid panel that showed pattern found at [drrind.com](http://drrind.com) of TSH=+2, FT4=+2, FT3=-8, and rT3 high at 24.4; range 6-21. He said this looked like metals so I did a hair test that showed

mercury (1.8 (middle-yellow); ref <.8) and essential minerals scattered low and high. It was one of the worst he'd seen for a while for essentials, he seemed confused, had me do a 6-hr urine provocation "since lead doesn't show in hair." After an unknown qty of pills of Thorne Captomer DMSA and Thorne 'Captomer something' the test showed lead was high (11, red) and mercury too (10, red). He gave me 2 captomer bottles of different kinds with the recommendation to take 700-1000mg/day 4 days on/off and consider coming in for IV chelation DMPS or EDTA. I did the oral chelation with the 2 bottles and had some odd feelings but nothing too much worse than how foggy and explosively digestive as I already felt. He said a lot of times metals take care of themselves and recommended chlorella, Vit. C, multi-minerals (including Lithium and molybdenum), and citrus pectin which I took for several months.

Things seemed to improve to bearable status, though I know I'm still not back to normal.

~07\_2011: I deduced the 600mg ALA definitely made me feel awful for 'some reason' and stopped taking it (I was taking it in the morning on an empty stomach generally.)

09\_2011: I did another thyroid test through (Nat.1) in, per [drrind.com](http://drrind.com) scale: TSH=0, FT4=+3, FT3=-1; rT3 334 (90-350 range); Free Testosterone 105 (30-155 range). Things seemed pretty normal, doc said come back later for follow up.

05\_2012: Came back to Nat.1 for a followup blood work and TSH is +2 (2.46) (other markers noted at top. Urine metals after 6hr urine challenge and 2500mg Captomer DMSA show mercury (red, 11) lead (very red, 18). (Both higher than last year!) Doc gives prescription of Armour for thyroid.

. . . and I get frustrated with no answer for ending my digestion/allergies or getting metal out of my body/urine, find myself here.

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

-No amalgam

-Wisdom teeth removed 1996; age 14

-First/only root canal w gold crown placed on tooth with 'deep filling' in 04\_2005; dentist that did filling would not have used amalgam at that time.

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

-multiple composite fillings, and one gold crown, x-rays show now mercury.

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

-She had 4-5 amalgam fillings done at age 10-12; gave birth to me age 19.

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

-Born in 1982 and received all scheduled vaccines (don't know)



-In 2002 spent a semester at U of Hawaii and received a bunch of vaccines: meningococcal, "DTaP,DTP,DT," MMR (one in 1984, one in 2002), Hep B Twinrix (3 shots that yr.), Hep A Twinrix (2 shots that yr.)

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

- Vit C-1g
- Vit E-400IU
- CoQ10-100mg
- Acetyl-L-Carnitine-500mg
- Magnesium-400mg
- ALA-600mg

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

-I've always done well academically (I am a mechanical engineer) but have a terrible memory, can't remember what I ate for bkfst, etc. I've seen this correlation of mercury mentioned on the forum recently.

-Several other symptoms apply to me with regard to anxiety, obsessive compulsive, feeling impending doom, etc. growing up.

-For the past 3 months I've been doing a de-tox workout called T-Tapp, it opens the lymph system and helps it pump. I get amazing tingles/chills when doing the stances/moves. A couple times I couldn't stop dancing to b/c of the tingle it gave all over my body felt so good/funny. Metals?

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

-ALL USA - Grew up in Idaho Falls, ID, 1982-2001, then Moscow, ID, 2001-2006 now in Seattle, WA 2006-present.

I ordered both of Andy's books but have not had a chance to read all of them yet. (I was really grateful for the point in AI about 'people who received allergy shots' as it's been a disturbing mystery, to my docs as well, as to why I had mercury in my body until I read that.)

Does metal come out of fat when weight is lost? Does it go back in when weight is gained?

Given I had frightening brain-fog (brain-dead more like it) and coordination issues last year but was taking 600mg ALA I wonder if I can start at a higher dose than 12.5mg. I am extremely frightened for those issues to return they are terrible!

I still suffer from poor digestion allergies, etc