



Elemental Analysis Hair



Patient: Number 258

DOB: May 06, 1962\

Completed: February 09, 2009

Sex: F

Received: February 05, 2009

MRN: 0001287203

Collected: January 30, 2009

Toxic Elements

Element	Reference Range	Reference Range in µg/g
Aluminum	1.6	<= 17.3
Antimony	0.004	<= 0.016
Arsenic	0.020	<= 0.080
Barium	0.16	<= 1.70
Bismuth	<dl	<= 0.178
Cadmium	0.006	<= 0.022
Gadolinium	0.0004	<= 0.0005
Lead	0.069	<= 0.700
Mercury	0.48	<= 1.32
Nickel	0.10	<= 0.55
Rhodium	<dl	<= 0.0005
Rubidium	0.001	<= 0.040
Thallium	<dl	<= 0.0004
Tin	0.020	<= 0.149
Uranium	0.0041	<= 0.0057

Nutrient Elements

Element	Reference Range	Reference Range in µg/g
Calcium	550	192-1,588
Chromium	0.06	0.01-1.58
Cobalt	0.003	0.001-0.129
Copper	11	8-136
Iron	6.4	5.2-24.4
Magnesium	25	11-122
Manganese	0.06	0.04-1.93
Molybdenum	0.04	0.01-1.24
Phosphorous	160	104-206
Selenium	0.80	0.58-1.13
Sodium	<dl	14-426
Strontium	0.77	0.01-4.40
Sulfur	50,078	41,781-60,894
Vanadium	0.003	0.003-0.108
Zinc	179	119-245

Reference Range

Lithium	<dl	<= 0.302
Potassium	<dl	<= 174

Ratios

	Inside Range	Outside Range	Reference Range
Ca/Mg	22		5-29
Ca/P	3		1-9

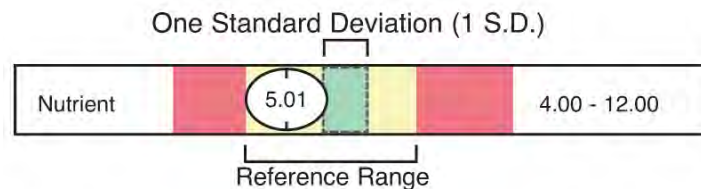
Commentary

This test has been developed and its performance characteristics determined by Genova Diagnostics, Inc. It has not been cleared or approved by the U.S. Food and Drug Administration.

Reference ranges are derived from a healthy adult population without hair treatments such as perms, dyes or bleach.

NOTE: Commentary is provided to the practitioner for educational purposes, and should not be interpreted as diagnostic or treatment recommendations. Comments regarding clinical significance for the various elements are based on endogenous concentrations. Hair Analysis is always a reflection of both endogenous levels and external contamination (elements on the hair surface), thus is considered a screen rather than a definitive diagnostic assessment of body burden.

The **Reference Range** is a statistical interval representing 95% or 2 Standard Deviations (2 S.D.) of the reference population. One Standard Deviation (1 S.D.) is a statistical interval representing 68% of the reference range population. Values between 1 and 2 S.D. are not necessarily abnormal. Clinical correlation is suggested. (See example below)



NOTE: The following comments regarding clinical significance for the elements tested in this profile are based on *endogenous* concentrations. It should be noted that Hair Analysis is a reflection of both endogenous levels *and* external contamination (elements on the hair surface), thus is considered a screen rather than a definitive diagnostic assessment of tissue levels. Confirmation of toxicity may be accomplished via blood or urine testing. Provocative challenge urine testing (with the use of a chelating agent) can reflect tissue stores from previous exposure, whereas non-provoked urine or blood tests will reflect current exposure.

NOTE: Hair iron, phosphorus, sodium, and potassium are generally not thought to reflect dietary intake or body stores of these elements; however, abnormal hair levels may be associated with certain drugs and clinical conditions. Elevated hair iron may be found in smokers, x-ray technicians and individuals with certain forms of cancer. Notably low or high hair phosphorus is consistent with abnormal calcium and/or magnesium metabolism. Hair phosphorus also is typically elevated with kidney dialysis, and may be depressed in chronic hepatitis. Regular swimming in pools can elevate hair sodium. Although hair levels of sodium and potassium may be clinically significant in the presence of cystic fibrosis, celiac disease, and hyperparathyroidism, hair levels do not generally reflect tissue concentrations of these elements.

Calcium (Ca) level is within the reference range. Hair Ca correlates with long term dietary intake, absorption from the GI tract and retention. The hair Ca level does not necessarily reflect current serum calcium or calcium ion concentrations and may not have a linear or direct relationship with tissue deposition or bone density.

Cobalt (Co) level is within the reference range.

Chromium (Cr) is within the reference range.

Iron (Fe) is within the reference range. Please refer to note at beginning of commentary section.

Magnesium (Mg) is within the reference range.

Manganese (Mn) is within the reference range.

Molybdenum (Mo) is within the reference range.

Health history for hair test 258

1) Symptoms and Health History

My current/recent symptoms are: fatigue, Candida (now under control), brain fog, joint & muscle pain, heart palpitations, chest pains, low cortisol (tested), low basal temperature, slow pulse (55-60), chronic constipation, bloating, irritability, depression, lethargy, lack of sex drive, anxiety, mild OCD, sleep disturbances, muscle twitching & jerking, headaches, food sensitivities, night sweats, vision disturbances, hair loss, tinnitus, coordination problems, hypoglycemia, endometriosis, dizziness.

Relevant health history:

1975 (age 13) – Hymenectomy – preceded by approximately 2 months undiagnosed illness. Symptoms included severe fatigue and inability to urinate without strain. Hospitalization, catheterization and further investigation revealed the beginning of the menses with imperforate hymen. Urine, menstrual fluid and faeces were unable to pass and the body became toxic. Note: I believe this was the beginning of mercury retention. Chronic yeast problems began after this surgery. Decades followed with bouts of depression, cognitive problems, yeast, food intolerances, cystic acne, fatigue, blood sugar problems etc.

1985/1986 – treated with Acutane for cystic acne. Possibly long period of tetracycline prior to this.
1999 – hysterectomy – preceded by a history of heavy periods, cramping and clotting, pre-cancerous changes in the cervix.

March 2007 – laparoscopic appendectomy

March 2008 – Adrenals crashed after a very stressful period.

January 2009 – Mercury toxicity confirmed with Vega testing and positive porphyrin urine profile.

2) Dental History

First amalgams placed at young age. Possibly as young as 7 or 8 (1969-1970). Wisdom tooth (impacted) removed in 1988. Porcelain/Nickel crown placed around 1989. Root canal placed in 1995. Badly decayed molar extracted in 2004, which subsequently became infected. Last amalgam placed April 2007 to repair one which was leaking.

3) Dental Work

7 amalgam fillings in total, 1 root canal tooth (with a very large filling), 1 porcelain/nickel crown (some of the porcelain has worn away, exposing a bit of nickel on the biting surface). On the 20th of Feb, had 1st quadrant replaced (highest negative reading) – 3 amalgams in that quadrant. There is a low grade infection in the root canal tooth. This will be extracted and cleaned out when the 3rd quadrant is done.

4) Mother's dental work

My mother had numerous amalgams and crowns in place before I was born. I don't know if any were placed during pregnancy.

5) Vaccinations

1981 – Gamma Globulin (co-worker had Hepatitis A)

1982 – Immune Globulin (during pregnancy as I'm RH negative)

6) Supplements and Medications

ADP (anti-fungal)	2-3 am
Dr Wilson's Adrenal Rebuilder	5-6 per day
Dr W's Adrenal Support (liquid)	15 drops 3 x day
Arctic Omega (fish oil)	1 am, 1 pm
Body Bio Oil (Sunflower & Flax Oil)	1 tbsp am, 1 tbsp pm
Chromium Picolinate (hypoglycaemia)	1 before each meal
Co-Q10	1 am
Daily Greens (to alkalize)	2 am, 2 pm
Eco Balance (pro-biotic)	1 strip in pm
Equifem (multi-vitamin)	1 am, 1 pm
FC Cidal (anti-fungal)	1 am

Fiber	2 tsp am
Glucosamine & Chondroitin (joints)	1 am
L-Glutamine (leaky gut)	1 tsp am, 1 tsp pm
Keto-Zyme (DHEA)	2 am
Magnesium Ascorbate (Vit C)	4g am, 4g pm
Milk Thistle (liver)	1 am, 1 pm with food
Spiru Selen (selenium)	4 tablets 2x day
St John's Wort (depression)	1 am (every 3-4 days)
Supergest (enzymes)	1 before meals & snacks
Syzygium (pancreas)	10 drops 3 x day
Zeel (arthritis)	1 under tongue 3-5 x day

7) Other Information

The appendectomy, last amalgam placement and death of my mother all took place within 3 months in 2007. I believe this is significant in terms of my immune system. I feel certain that I have been mildly mercury toxic since 1975. The events of 2007, followed by an extremely stressful period in Feb/March 2008 forced my complete adrenal crash and led to the discovery of the mercury connection.

Given my mother's extensive dental work, I believe some of my mercury burden was acquired in the womb. Of particular interest is the fact that I have a twin brother who also suffers from numerous health problems. Unfortunately, he is a highly trained paramedic and cannot be dissuaded from the party line that dental amalgam poses no threat.

8) Location

Originally from Colorado (1964-1984), I lived in Portland, Oregon for 7 years after that and, since 1992, live in London, England.