

HAIR TEST 1220 SEX: Female AGE: 44

#### Toxic & Essential Elements; Hair

TOXIC METALS							
		RESULT پیg/g	REFERENCE INTERVAL	PERCENTILE 68 <sup>th</sup> 95 <sup>th</sup>			
Aluminum	(AI)	0.3	< 7.0				
Antimony	(Sb)	< 0.01	< 0.050				
Arsenic	(As)	0.034	< 0.060				
Barium	(Ba)	0.62	< 2.0				
Beryllium	(Be)	< 0.01	< 0.020				
Bismuth	(Bi)	0.051	< 2.0				
Cadmium	(Cd)	< 0.009	< 0.050				
Lead	(Pb)	0.12	< 0.60				
Mercury	(Hg)	0.08	< 0.80				
Platinum	(Pt)	< 0.003	< 0.005				
Thallium	(TI)	< 0.001	< 0.002				
Thorium	(Th)	< 0.001	< 0.002				
Uranium	(U)	0.010	< 0.060				
Nickel	(Ni)	0.13	< 0.30				
Silver	(Ag)	0.07	< 0.15				
Tin	(Sn)	0.03	< 0.30				
Titanium	(Ti)	0.27	< 0.70				
Total Toxic Representation							
ESSENTIAL AND OTHER ELEMENTS							
		RESULT	REFERENCE	PERCENTILE			
	(2)	μg/g	INTERVAL	2.5 <sup>th</sup> 16 <sup>th</sup> 50 <sup>th</sup> 84 <sup>th</sup> 97.5 <sup>th</sup>			
Calcium	(Ca)	1090	300- 1200				

		μg/g	INTERVAL	2.5 <sup>th</sup> 16 <sup>th</sup> 50 <sup>th</sup> 84 <sup>th</sup> 97.5 <sup>th</sup>
Calcium	(Ca)	1090	300- 1200	
Magnesium	(Mg)	190	35- 120	
Sodium	(Na)	43	20- 250	
Potassium	(K)	4	8- 75	
Copper	(Cu)	18	11- 37	
Zinc	(Zn)	210	140- 220	
Manganese	(Mn)	0.25	0.08- 0.60	
Chromium	(Cr)	0.36	0.40- 0.65	
Vanadium	(V)	0.013	0.018- 0.065	
Molybdenum	(Mo)	< 0.01	0.020- 0.050	
Boron	(B)	0.93	0.25- 1.5	
lodine	(I)	0.14	0.25- 1.8	
Lithium	(Li)	< 0.004	0.007- 0.020	
Phosphorus	(P)	153	150- 220	
Selenium	(Se)	0.57	0.55- 1.1	
Strontium	(Sr)	0.96	0.50- 7.6	
Sulfur	(S)	46200	44000- 50000	
Cobalt	(Co)	0.097	0.005- 0.040	
Iron	(Fe)	6.8	7.0- 16	
Germanium	(Ge)	0.032	0.030- 0.040	
Rubidium	(Rb)	0.004	0.007- 0.096	
Zirconium	(Zr)	0.079	0.020- 0.42	

SPECIMEN DATA			RATIOS		
COMMENTS:		ELEMENTS	RATIOS	RANGE	
		Ca/Mg	5.74	4- 30	
Date Collected: 11/18/2016	Sample Size: 0.199 g	Ca/P	7.12	1- 12	
Date Received: 11/21/2016	Sample Type: Head	Na/K	10.8	0.5- 10	
Date Completed: 11/25/2016	Hair Color: Brown	Zn/Cu	11.7	4- 20	
Methodology: ICP/MS	Treatment: Dye	Zn/Cd	> 999	> 800	
	Shampoo: Mineral Fusion			•	

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#### Hair Test 1220

Here are the answers to the other questions:

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

I have insomnia, where I wake up several times in the middle of the night, often with a racing heart and sometimes nightmares. Staying off thiol-containing foods has helped a lot, as has avoiding foods/supplements with salicylates. I also have to eat low histamine. Other symptoms are that I sometimes have an irregular/fast heart beat during the day, have severe dysbiosis, extremely loud gut noises, and diarrhea. I don't have brain fog or problems concentrating. I don't have any nervous system problems except that sometimes when I ate lots of thiol-containing foods, my hands might feel tingly the next day. I don't have any mood problems. I did have anxiety but it's gone due to EFT tapping and taking some d-Phenalyanine and magnesium.

Health history: I was generally healthy until a couple years ago. I'm 44. I had Irritable Bowel Syndrome (constipation predominate) for 16 years and manged it pretty well. I probably had food poisoning at age 22 and a really bad flu/infection at age 24. I also have had moderate to severe hay fever (in the fall only) since I was a teenager.

3 1/2 years ago I got a giardia infection (but didn't discover it until 6 months ago). The initial infection was a puzzle to my doctors and they couldn't find a cause. I was pretty sick for about 7-8 weeks. I eventually recovered, except for mild diarrhea that stayed with me. About a year after the infection, I went through a really emotionally stressful time and my health then quickly deteriorated. I couldn't sleep and my body felt really sick. I started becoming intolerant of foods and supplements I could easily take before the infection, such as thiol-containing foods and supplements. Once the parasite was finally discovered, I went on two rounds of metronidazole in early summer 2016. I tried a soil based probiotic (Prescript Assist) in July and it has had lasting negative effects on me. I had to take a 3rd course of metronidazole in September in an attempt to get rid of the rogue bacteria from the Prescript Assist. I have major diarrhea every day, due to the bacteria in the Prescript Assist probiotic that have clearly become opportunistic. I still can't eat thiol-containing foods, etc. I still have sleep problems, although they have lessened.

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

I had amalgam fillings put in elementary school or middle school - maybe 4-5 total? They started cracking my teeth by college so I started getting crowns or composite fillings to replace them. My first root canal was in 1993-ish, when I was in my early 20s. My wisdom teeth were removed in my early 20s. I had braces in high school for one year. I also had braces for 7 months in 2014 (after the parasite infection, but still before I knew I had it). To add insult to injury, I used an FDA-approved device while I had my braces that sends micro pulses to your teeth to help them move faster. I did it daily for 20 minutes a day.

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

I am getting all of my crowns removed by a mercury safe dentist in December. I have 4 crowns (one of them is an implant). I don't have any amalgam fillings in my natural teeth. Only one crown definitely has an amalgam filling and one is definitely mercury free. The other two are probably mercury free but I'm getting them removed anyway.

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

I have no idea if she had the amalgam fillings when I was born. It's very likely, as she has had them for as long as I remember.

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

I had typical American vaccinations as a child and have had a tetanus booster shots every 10 years. I'm due next year. I got the Hepatitis vaccinations in order to enroll into a health program at college. I never got flu shots....except for fall 2014 and fall 2015! (I didn't want to get sick like I was when I got the giardia infection.)

The big possible problem is that I was on regular allergy shots twice in my life, both for over a year, until the dose was too strong and I started having systemic reactions (hives, asthma, etc.). They had to give me adrenaline to combat the reactions. I was in my early 20s the first time and in my mid-20s the second time. Doctors couldn't figure out why I was having systemic reactions because I didn't have asthma or food allergies.

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

\*900 mg of ionic, pico-sized magnesium

\*ionic pico-sized multimineral formula [my daily dose was: 1% RDA sodium (30 mg), 2% potassium (100 mg), 4% calcium (62 mg), 100% iodine (150 mcg), 16% magnesium (62 mg), 40% zinc (6 mg), 114% selenium (80 mcg), 30% copper (600 mcg), 100% manganese (600 mcg), 100% chromium (120 mcg), 30% molybdenim (22 mcg), 750 mcg boron.]

\*50 mg P5P

\*300-600 mg calcium

\*1,200-2,000 IU Vitamin D

\*various probiotics, mostly bifidum strains with some lactobacillus

\*500 mcg hydroxycobalamin (with some folinic acid although I am an undermethylator)

\*1,300 mg evening primrose oil

\*Bentonite clay - 1 dose on most days of the week (taken in September and October) \*Amli fruit supplement (natural source of vitamin C)

\* I take Benadryl and/or Claritin as needed. It helps me sleep through the night.

\*I am on no prescription medications.

\*I was dying my hair with a non-permanent dye. I had at least an inch of undyed hair and I think the hair sample was dye-free.

\*I was using a natural shampoo that had added minerals (for whatever reason). I looked at the ingredients and it has small amounts of marine clay, mica, and extracts from a few stones such as malachite and hematite).

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

I had some blood tests done recently and I am really confused by my RBC zinc and serum zinc tests. And I'm curious to know if I am one of the few people that should be supplementing with copper, not zinc. My nutritionist has seen this only once.

FROM AN INDEPENDENT LAB - September

RBC Magnesium: 5.4 mg/dL (range: 4.2-6.8) - Normal Serum/Ionized Calcium: 5.2 mg/dL (range: 4.5-5.6) - Normal Plasma Copper: 0.83 ug/mL (range: 0.80-1.75) - Nearly Low RBC Copper: 0.61 ug/mL (range: 0.50-1.00) - Nearly Low RBC Zinc: 1629 ug/dL (range: 822-1571) - High! (This was verified by a second sample at a second lab.)

FROM MY REGULAR DOCTOR - October Plasma Copper: 88 ug/dl (range: 80-155) Low but Normal Plasma Zinc: 56 ug/dl (range: 60-120) - LOW! electolytes panel: all normal except chloride was just under the low end of the normal range

I also had lots of tests last December that were all normal: thyroid antibodies, ferritin, iron, vitamin D, vitamin B12, 2-hour glucose tolerance test. My TSH is technically "normal" but is near the bottom of the range. My salivary cortisol test from March (before my parasite was discovered), shows a huge spike in the middle of the night - no surprise - and is slightly low during the day. I had a thorough DNA stool test done in April and the only "bad" things were a giardia parasite and a protease SPP opportunistic infection. No candida or other infections were detected. My lactobacillus was low but my bifidum was normal at the time.

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

Wisconsin - I've spent most of my life in the Midwestern United States, and about 7 years in Colorado