HAIR ELEMENTS



PATIENT: Number 295 SEX: Male AGE: 51

LOCATION: Seattle, Washington, USA

TOXIO	POTENTIALLY TOXIC ELEMENTS			
TOXIC	RESULT	REFERENCE	PERCENTILE	
ELEMENTS	μg/g	RANGE	68 th 95 th	
Aluminum	μ <u>9</u> ,9 1.1	< 12		
Antimony	0.011	< 0.080		
Arsenic	0.13	< 0.12		
Barium	0.09	< 1.5		
Beryllium	< 0.01	< 0.020		
Bismuth	0.005	< 2.0	•	
Cadmium	0.033	< 0.065		
Lead	0.19	< 1.5		
Mercury	0.14	< 0.80		
Platinum	< 0.003	< 0.005		
Thallium	< 0.001	< 0.002		
Thorium	< 0.001	< 0.002		
Uranium	0.001	< 0.060	•	
Nickel	0.03	< 0.40		
Silver	0.01	< 0.10		
Tin	0.10	< 0.30		
Titanium	0.39	< 0.70		
Total Toxic Representa		I.		
			AND OTHER ELEMENTS	
	RESULT	REFERENCE	PERCENTILE	
ELEMENTS	μg/g	RANGE	2.5 th 16 th 50 th 84 th 97.5 th	
Calcium	306	375- 1100		
Magnesium	53	40- 140		
Sodium	520	60- 400		
Potassium	680	28- 160		
Copper	9.3	11- 32		
Zinc	160	120- 200		
Manganese	0.15	0.15- 0.65		
Chromium				
Chronnan	0.36	0.40- 0.70		
Vanadium	0.36 0.031	0.40- 0.70 0.018- 0.065		
		0.018- 0.065 0.040- 0.080		
Vanadium	0.031	0.018- 0.065 0.040- 0.080 0.40- 2.5		
Vanadium Molybdenum	0.031 0.072	0.018- 0.065 0.040- 0.080 0.40- 2.5 0.25- 1.8		
Vanadium Molybdenum Boron	0.031 0.072 5.1	0.018- 0.065 0.040- 0.080 0.40- 2.5 0.25- 1.8 0.008- 0.030		
Vanadium Molybdenum Boron Iodine	0.031 0.072 5.1 1.6	0.018- 0.065 0.040- 0.080 0.40- 2.5 0.25- 1.8 0.008- 0.030 200- 300		
Vanadium Molybdenum Boron Iodine Lithium	0.031 0.072 5.1 1.6 0.015	0.018- 0.065 0.040- 0.080 0.40- 2.5 0.25- 1.8 0.008- 0.030 200- 300 0.80- 1.3		
Vanadium Molybdenum Boron Iodine Lithium Phosphorus	0.031 0.072 5.1 1.6 0.015 213	0.018- 0.065 0.040- 0.080 0.40- 2.5 0.25- 1.8 0.008- 0.030 200- 300 0.80- 1.3 1.0- 6.0		
Vanadium Molybdenum Boron Iodine Lithium Phosphorus Selenium	0.031 0.072 5.1 1.6 0.015 213 0.84	$\begin{array}{c} 0.018- \ 0.065\\ \hline 0.040- \ 0.080\\ \hline 0.40- \ 2.5\\ \hline 0.25- \ 1.8\\ \hline 0.008- \ 0.030\\ \hline 200- \ 300\\ \hline 0.80- \ 1.3\\ \hline 1.0- \ 6.0\\ \hline 41000- \ 47000\\ \end{array}$		
Vanadium Molybdenum Boron Iodine Lithium Phosphorus Selenium Strontium	0.031 0.072 5.1 1.6 0.015 213 0.84 0.63	$\begin{array}{c} 0.018- \ 0.065\\ \hline 0.040- \ 0.080\\ \hline 0.40- \ 2.5\\ \hline 0.25- \ 1.8\\ \hline 0.008- \ 0.030\\ \hline 200- \ 300\\ \hline 0.80- \ 1.3\\ \hline 1.0- \ 6.0\\ \hline 41000- \ 47000\\ \hline 0.006- \ 0.035\\ \end{array}$		
Vanadium Molybdenum Boron Iodine Lithium Phosphorus Selenium Strontium Sulfur	0.031 0.072 5.1 1.6 0.015 213 0.84 0.63 45300 0.017 4.9	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		
Vanadium Molybdenum Boron Iodine Lithium Phosphorus Selenium Strontium Sulfur Cobalt Iron Germanium	0.031 0.072 5.1 1.6 0.015 213 0.84 0.63 45300 0.017 4.9 0.028	$\begin{array}{c} 0.018- \ 0.065\\ \hline 0.040- \ 0.080\\ \hline 0.40- \ 2.5\\ \hline 0.25- \ 1.8\\ \hline 0.008- \ 0.030\\ \hline 200- \ 300\\ \hline 0.80- \ 1.3\\ \hline 1.0- \ 6.0\\ \hline 41000- \ 47000\\ \hline 0.006- \ 0.035\\ \hline 7.0- \ 16\\ \hline 0.030- \ 0.040\\ \end{array}$		
Vanadium Molybdenum Boron Iodine Lithium Phosphorus Selenium Strontium Sulfur Cobalt Iron Germanium Rubidium	0.031 0.072 5.1 1.6 0.015 213 0.84 0.63 45300 0.017 4.9 0.028 0.68	$\begin{array}{c} 0.018- \ 0.065\\ \hline 0.040- \ 0.080\\ \hline 0.40- \ 2.5\\ \hline 0.25- \ 1.8\\ \hline 0.008- \ 0.030\\ \hline 200- \ 300\\ \hline 0.80- \ 1.3\\ \hline 1.0- \ 6.0\\ \hline 41000- \ 47000\\ \hline 0.006- \ 0.035\\ \hline 7.0- \ 16\\ \hline 0.030- \ 0.040\\ \hline 0.030- \ 0.25\\ \end{array}$		
Vanadium Molybdenum Boron Iodine Lithium Phosphorus Selenium Strontium Sulfur Cobalt Iron Germanium	0.031 0.072 5.1 1.6 0.015 213 0.84 0.63 45300 0.017 4.9 0.028	$\begin{array}{c} 0.018- \ 0.065\\ \hline 0.040- \ 0.080\\ \hline 0.40- \ 2.5\\ \hline 0.25- \ 1.8\\ \hline 0.008- \ 0.030\\ \hline 200- \ 300\\ \hline 0.80- \ 1.3\\ \hline 1.0- \ 6.0\\ \hline 41000- \ 47000\\ \hline 0.006- \ 0.035\\ \hline 7.0- \ 16\\ \hline 0.030- \ 0.040\\ \end{array}$		
Vanadium Molybdenum Boron Iodine Lithium Phosphorus Selenium Strontium Sulfur Cobalt Iron Germanium Rubidium Zirconium	0.031 0.072 5.1 1.6 0.015 213 0.84 0.63 45300 0.017 4.9 0.028 0.68 0.68 0.038	$\begin{array}{c} 0.018- \ 0.065\\ \hline 0.040- \ 0.080\\ \hline 0.40- \ 2.5\\ \hline 0.25- \ 1.8\\ \hline 0.008- \ 0.030\\ \hline 200- \ 300\\ \hline 0.80- \ 1.3\\ \hline 1.0- \ 6.0\\ \hline 41000- \ 47000\\ \hline 0.006- \ 0.035\\ \hline 7.0- \ 16\\ \hline 0.030- \ 0.040\\ \hline 0.030- \ 0.25\\ \end{array}$		
Vanadium Molybdenum Boron Iodine Lithium Phosphorus Selenium Strontium Sulfur Cobalt Iron Germanium Rubidium	0.031 0.072 5.1 1.6 0.015 213 0.84 0.63 45300 0.017 4.9 0.028 0.68 0.68 0.038	0.018- 0.065 0.040- 0.080 0.40- 2.5 0.25- 1.8 0.008- 0.030 200- 300 0.80- 1.3 1.0- 6.0 41000- 47000 0.006- 0.035 7.0- 16 0.030- 0.040 0.030- 0.25 0.040- 1.0 PECIMEN DATA		
Vanadium Molybdenum Boron Iodine Lithium Phosphorus Selenium Strontium Sulfur Cobalt Iron Germanium Rubidium Zirconium	0.031 0.072 5.1 1.6 0.015 213 0.84 0.63 45300 0.017 4.9 0.028 0.68 0.68 0.038	$\begin{array}{c} 0.018- \ 0.065\\ \hline 0.040- \ 0.080\\ \hline 0.40- \ 2.5\\ \hline 0.25- \ 1.8\\ \hline 0.008- \ 0.030\\ \hline 200- \ 300\\ \hline 0.80- \ 1.3\\ \hline 1.0- \ 6.0\\ \hline 41000- \ 47000\\ \hline 0.006- \ 0.035\\ \hline 7.0- \ 16\\ \hline 0.030- \ 0.040\\ \hline 0.030- \ 0.25\\ \hline 0.040- \ 1.0\\ \end{array}$	0.195 g ELEMENTS RATIOS RATIOS ELEMENTS RATIOS EXPECTED RANGE	
Vanadium Molybdenum Boron Iodine Lithium Phosphorus Selenium Strontium Strontium Sulfur Cobalt Iron Germanium Rubidium Zirconium COMMENTS: Date Collected: 6/4	0.031 0.072 5.1 1.6 0.015 213 0.84 0.63 45300 0.017 4.9 0.028 0.68 0.038	0.018- 0.065 0.040- 0.080 0.40- 2.5 0.25- 1.8 0.008- 0.030 200- 300 0.80- 1.3 1.0- 6.0 41000- 47000 0.006- 0.035 7.0- 16 0.030- 0.040 0.030- 0.25 0.040- 1.0 PECIMEN DATA	0.195 g Pubic BLEMENTS Ca/Mg 5.77 4-30	
Vanadium Molybdenum Boron Iodine Lithium Phosphorus Selenium Strontium Strontium Sulfur Cobalt Iron Germanium Rubidium Zirconium COMMENTS: Date Collected: 6/4	0.031 0.072 5.1 1.6 0.015 213 0.84 0.63 45300 0.017 4.9 0.028 0.68 0.038 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	0.018- 0.065 0.040- 0.080 0.40- 2.5 0.25- 1.8 0.008- 0.030 200- 300 0.80- 1.3 1.0- 6.0 41000- 47000 0.006- 0.035 7.0- 16 0.030- 0.040 0.030- 0.25 0.040- 1.0 PECIMEN DATA Sample Size:	Image: constraint of the second sec	
Vanadium Molybdenum Boron Iodine Lithium Phosphorus Selenium Strontium Sulfur Cobalt Iron Germanium Rubidium Zirconium COMMENTS: Date Collected: 6/4 Date Received: 6/8	0.031 0.072 5.1 1.6 0.015 213 0.84 0.63 45300 0.017 4.9 0.028 0.68 0.038 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	0.018- 0.065 0.040- 0.080 0.40- 2.5 0.25- 1.8 0.008- 0.030 200- 300 0.80- 1.3 1.0- 6.0 41000- 47000 0.006- 0.035 7.0- 16 0.030- 0.040 0.030- 0.25 0.040- 1.0 PECIMEN DATA Sample Size: Sample Size: Sample Type:	0.195 g ELEMENTS RATIOS Pubic Ca/Mg 5.77 4- 30	

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V010.08

Zn/Cd

> 999

> 800

Health history for hair test 295

1. Current symptoms (last 2 months): Muscle twitching mostly in feet, also tingling, esp toes. Had this numbress last year too, for about 9 months. Was taking Chinese herbs for most of that year.

"Health" history: Anxiety since around 1977? Gradual onset CFS starting 1997, diagnosed 2001. Disabled since 2004. Typical CFS symptoms: severe fatigue and anxiety, better by evening, brain fog, constant tinnitus, some muscle pain, cramping, can still walk, but am overall worse every year. Just last year could walk a mile almost every day. Now, I walk about 8 blocks, 4-5 days a week, and that's on a good day. Also, sensitive to sound, light. Plus poor digestion, and resulting weight loss. I'm 6'2" and 152 lbs. Was up to 160 six months ago. Complete thyroid panel okay 2007, Salivary cortisol in 2003 showed high cortisol throughout 24 hour period, which would explain the high anxiety levels (I think).

2. Dental History: Had wisdom teeth removed, had braces. First amalgams when I was 7 or 8? Had several more when braces were removed. Good for a few years until after a gap w/no insurance – then had probably 6-7 more filled – probably 15 total? In hindsight my anxiety worsened as the number of fillings increased. I DID have some muscle twitching in my feet way back in about 1985-86. Thought I had MS, but no. Twitching resolved, but has come and gone – sometimes for years, but has definitely been an issue since 1998 or so – can disappear for a year or two. 2 MRI's in recent years, show 'clean' brain.

3. Current dental work: Had my fillings replaced with composites way back in 1988-1989, probably because of another twitching flare in my feet. I think it helped, temporarily at least. But this was done before I think we knew how to do it as safely as possible. I don't remember wearing anything to cover my nose, but do remember the rubber dams. Two of my composites cracked in 2000, but haven't been able to afford the dental work. Had dental school x-rays taken in 2003 – I think they found 15 cavitations, and recommended 3 crowns. So my mouth is a mess. My gums bleed easily, but gums are pink, pockets small, and am scheduled for a cleaning next month, if I can handle it.

4. **Mom's dental history:** Have no idea what dentistry my mom had when she was pregnant. I do know she had a lot of fillings, then later a partial denture. Died of Parkinson's in 1993. I took care of her from 1987-1991, 24/7.

5. Vaccinations: I had the standard vaccinations when I was a kid in the 60's and '70's. Can't recall if I've had any since. I stopped seeing "regular" docs, so haven't had a flu shot, etc., in 20 years.

6. Supplements / medications: Only 2 meds the past 10 years. Klonopin, off and on, then daily from 2004-2008, then switched to Valium to taper off...still tapering per the Ashton protocol. But if I go too low, then tingling/twitching <u>seems</u> to get worse.

Supplements: A ton. But have cut way back, and want to cut back further. The <u>important ones to</u> <u>mention here</u> are 3mgs **Boron**, (which showed up 'high), and **copper and iron**. I was muscle tested by two different docs last year, one said my iron and copper were the <u>lowest she's ever seen</u>, the other said they were low, but not too bad. I know, muscle testing is controversial. Anyway, both are low on the hair test. Been taking iron off and on, dessicated liver, and sometimes will take a copper supp, but haven't taken copper much in the last 3 months (before that, I was taking 2mgs a day since Jan). Also occasionally take cal/mag, but seems to make my heart palpitate, or make twitching worse. Also have taken vitamin D off and on, and also EFA's / CLO. Not sure what my current "D" levels are, but they have been low in the past. Think I'm a little "D-phobic". Been taking zinc/carnitine for the last 2 months, hardly any copper.

As mentioned above, I took Chinese herbs prescribed by my acupuncturist for most of last year – because I had some bad tingling come pretty suddenly in Jan 08. This may have concurred with lowering my dose of klonopin (I hated taking that, was trying to wean off). When bloodwork done in spring 2008 showed I was borderline anemic (hemoglobin and hematocrit just below the low mark, for men), I asked my doc to help me taper off the klonopin, because it's associated with anemia, and also low WBCs. So we started the klonopin/valium taper desc above, but in the meantime, I took various formulas of Chinese herbs (all supposedly GMP certified), but some were "raw" herbs from a clinic downtown...so I wonder if that's where my arsenic came from. Even though we 'upped' the valium a bit in July 08, the tingling/numbness lasted until about October, but I did continue the herbs until the end of the year. Anemia and low WBC improved by December, but is now worse again. Haven't taken TCM herbs since Jan.

This year, about 2 weeks before the tingling/numbness started, I had a bad flare of the tinnitus. Really loud. I read online that kelp had helped someone, so I bought a bottle, and sure enough, it helped

considerably. But about 2 weeks later, on May 17th, almost overnight, the tingling came on in my feet. I read that kelp may be contaminated w/ arsenic...so three days later...I stopped it. It hasn't gotten worse, but hasn't really gotten too much better either.

7. Other information: Oh...almost forgot, but another unusual symptom – increased hair loss, both the past two months, and also last summer/fall for a couple of months. Increasing the iron helped...I think...but not sure. MPB runs in the family, but this hair loss increase was and is very noticeable. This increased hair loss was also a main symptom in the woman who was taking kelp supplements and found to have high arsenic levels.

And finally, I live alone, so would like to do a protocol that is as "easy" as possible. I'm hoping to be able to do 'just' the ALA protocol. I've tried so many different things, doctors, over the years, but never have addressed heavy metals. I'm hoping this will be a huge part of the beginning of my recovery???

Right now I can't afford Andy's book, so I'm hoping to get as much help and guidance as possible from the FDC yahoo group.

8. Seattle, Washington, USA.