



Hair Toxic and Essential Elements Analysis (Essential Elements)

NOTE! Not ALL nutrient elements are accurately reflected via hair (see below)



LAB #: H000000-0000-0
PATIENT: Sample Patient
ID: PATIENT-S-00001
SEX: Male
AGE: 9

CLIENT #: 12345
DOCTOR:
Doctor's Data, Inc.
3755 Illinois Ave.
St. Charles, IL 60174

Toxic & Essential Elements; Hair

TOXIC METALS			
	RESULT $\mu\text{g/g}$	REFERENCE INTERVAL	PERCENTILE 68 th 95 th
Aluminum (Al)	9.0	< 8.0	
Antimony (Sb)	0.088	< 0.066	
Arsenic (As)	0.14	< 0.080	
Barium (Ba)	0.30	< 0.75	
Beryllium (Be)	< 0.01	< 0.020	
Bismuth (Bi)	0.13	< 2.0	
Cadmium (Cd)	0.025	< 0.070	
Lead (Pb)	0.92	< 1.0	
Mercury (Hg)	1.1	< 0.40	
Platinum (Pt)	< 0.003	< 0.005	
Thallium (Tl)	< 0.001	< 0.002	
Thorium (Th)	< 0.001	< 0.002	
Uranium (U)	0.010	< 0.060	
Nickel (Ni)	0.13	< 0.20	
Silver (Ag)	0.14	< 0.14	
Tin (Sn)	0.32	< 0.30	
Titanium (Ti)	0.51	< 0.70	
Total Toxic Representation			

ESSENTIAL AND OTHER ELEMENTS			
	RESULT $\mu\text{g/g}$	REFERENCE INTERVAL	PERCENTILE 2.5 th 16 th 50 th 84 th 97.5 th
Calcium (Ca)	157	160- 500	
Magnesium (Mg)	11	12- 50	
Sodium (Na)	100	20- 200	
Potassium (K)	100	12- 140	
Copper (Cu)	11	11- 32	
Zinc (Zn)	350	110- 190	
Manganese (Mn)	0.28	0.08- 0.50	
Chromium (Cr)	0.60	0.40- 0.70	
Vanadium (V)	0.079	0.025- 0.10	
Molybdenum (Mo)	0.14	0.040- 0.090	
Boron (B)	3.6	0.50- 3.5	
Iodine (I)	0.48	0.25- 1.3	
Lithium (* Australian Li levels)	0.010	0.007- 0.020	
Phosphorus (known to be low)	146		
Selenium (implications unknown)	0.84		
Strontium	0.21	0.21	
Sulfur	50900	44000- 51000	
Cobalt	0.009	0.004- 0.020	
Iron (* Need complete blood)	10	7.0- 16	
Germanium ('Iron studies' to)	0.028	0.030- 0.040	
Rubidium (truly assess Iron)	0.086	0.008- 0.080	
Zirconium (status (use as an indication for)	0.42	0.060- 0.70	

Calcium:Magnesium (BALANCE is key)

Electrolyte levels (high or low) are NOT indicative of body levels. Their BALANCE is more important.

Sodium: Potassium (BALANCE is key)

Extreme imbalances can indicate Adrenal/kidney stress.

* Need URINE Iodine testing to verify insufficiency (however this test currently offers the most accurate indicator of Iodine status possible via hair)

Must balance P with * Ca, (indicates protein sufficiency)

Significance not conclusive. Experimental (more research required)

COMMENTS: further testing, NOT verification of sufficiency)

Date Collected: 10/13/2011
Date Received: 12/8/2011
Date Completed: 12/10/2011
Methodology: ICP/MS

Sample Size: 0.198 g
Sample Type: Head
Hair Color: Brown
Treatment:
Shampoo:

ELEMENTS	RATIOS	RANGE
Ca/Mg	14.3	4- 30
Ca/P	1.08	0.8- 8
Na/K		0.5- 10
Zn/Cu	31.8	4- 20
Zn/Cd	> 999	> 800

Use electrolyte ratios to assess correct BALANCE

HIGH essential element levels can indicate excess levels (toxicity), hair contamination OR, most commonly, 'Functional Deficiency' due to compromised utilisation (further supplementation with cofactors required, and addressing metabolic blocks).

LOW essential element levels indicate frank deficiency

What do HIGHS & LOWS mean?

