

PATIENT:

REQUESTED BY:

TS	LABORATORY NO.:										
S.A.	PROFILE NO.: 1	SAMPLE TYPE: SCALP									
	AGE: 59 SEX: M	METABOLIC TYPE: FAST 2									
	ACCOUNT NO.:	DATE: 4/5/2023									

NUTRITIONAL ELEMENTS -.032 -.0431 -.049 -.011 -0.53 -.028 - 7.0 -0.7 -3.5 -.212 -0.14 -0.20 -1.66 -.010 -.017 -7141 - 186 - 17.5 - 65 - 44 - 5.5 - 32 - 35 -.027 -.0369 -.042 -.009 -0.45 -.024 -0.6 - 6.0 -145 -13.5 -50 -34 -4.4 - 29 - 27 -2.8 -.162 -0.11 -0.16 -1.25 -.008 -.013 -6335 -.023 -.0308 -.035 -.008 -0.38 -.020 -0.5 - 5.0 -2.0 -.112 -0.08 -0.12 -0.83 -.005 -.009 -5528 - 104 - 9.4 - 34 - 23 - 3.2 - 22 -21 HGH -.018 -.0246 -.028 -.006 -0.30 -.016 -0.4 - 4.0 REFERENCE RANGE 20 1.1 .45 002 .005 4500 13 2.4 16 16 .07 6 .05 .12 -.014 -.0185 -.021 -.005 -0.23 -.012 -0.3 - 3.0 - 0.5 - .012 - 0.02 - 0.04 - 0.00 - .000 - .001 - 3915 - 10 - 22 - 1.3 - 3 -2 -0.9 -9 -.009 -.0123 -.014 -.003 -0.15 -.008 -0.2 - 2.0 REFERENCE RANGE 0 0.00 3109 3 - 5 << << Κ Cu Zn Ρ Fe Pb Ca Mg Na Mn Cr Se Β Co Mo S Sb U As Be Cd AI Hg Calcium Sodium Zinc Chromium Selenium Boron Cobalt Molybdenum Sulfur Antimony Uranium Arsenic Beryllium Mercury Lead Aluminum Magnesium Potassium Coppe Phosphor Iron Manganes Cadmium 20 5.0 25 2 1.0 20 14 0.7 .128 0.03 0.10 0.48 .005 .001 4668 N/A .0087 .003 .001 0.01 .001 0.1 0.5

ADDITIONAL ELEMENTS

															"<<": Below Calibration Limit; Value Given Is Calibratio Limit
006 -	- 0.41	053	0358	011	12	005	0005	018	- 0.87	- 0.11	36	005	- 0.09		"QNS": Sample Size Was Inadequate For Analysis.
															"N/A": Currently Not Available
004 -	- 0.27	035	0244	007	08	003	0003	012	- 0.58	- 0.07	24	003	- 0.06		Ideal Levels And Interpretation Have Been Based O
															Hair Samples Obtained From The Mid-Parietal To Th Occipital Region Of The Scalp.
															Laboratory Analysis Provided by Trace Elements, In
	- 0.00	- 000	0017 -	_ 000	00	000	0000	000	- 0.00	- 0.00	00	000	- 0.00		an H. H. S. Licensed Clinical Laboratory. No. 45 D0481787 Lab Dir: T. Flowers-Moore, Ph.D
	0.00	.000		.000	.00	.000	.0000	.000	0.00	0.00	.00	.000	0.00		
<<	-1	-	-			<<	<<			<<		<<			
Ge	Ba	Bi	Rb	Li	Ni	Pt	TI	V	Sr	Sn	Ti	W	Zr		
Germanium	Barium	Bismuth	Rubidium	Lithium	Nickel	Platinum	Thallium	Vanadium	Strontium	Tin	Titanium	Tungsten	Zirconium		
.001	0.02	.001	.0016	.001	.01	.001	.0001	.001	0.02	0.01	.10	.001	0.02		4/5/2023
															CURRENT TEST RESULTS

TOXIC ELEMENTS

PREVIOUS TEST RESULTS

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	SIGNIF	ICANT	RATIC	S			
HIGH	- 4.60	- 4.40	- 8.20	- 16.00	- 8.00	- 15.00	- 2.30
•	- 3.60	- 3.40	- 6.20	- 12.00	- 6.00	- 11.00	- 1.60
ACCEPTABLE	- 2.60	- 2.40	- 4.20	- 8.00	- 4.00	- 7.00	- 0.90
•	- 1.60	- 1.40	- 2.20	- 4.00	- 2.00	- 3.00	- 0.20
LOW							
	Ca/P	Na/K	Ca/K	Zn/Cu	Na/Mg	Ca/Mg	Fe/Cu
	1.43	12.50	10.00	20.00	5.00	4.00	0.70

TOXIC RATIOS

	- 168.0	- 8.8	- 20.0	- 1.6	- 1000.0	- 400.0	- 56900	- 142251	- 11380
ACCEPTABLE	- 126.0	- 6.6	- 15.0	- 1.2	- 750.0	- 300.0	- 42675	- 106688	- 8535
¥	- 84.0	- 4.4	- 10.0	- 0.8	- 500.0	- 200.0	- 28450	- 71126	- 5690
LOW	- 42.0	- 2.2	- 5.0	- 0.4	- 250.0	- 100.0	- 14225	- 35563	- 2845
	Ca/Pb	Fe/Pb	Fe/Hg	Se/Hg	Zn/Cd	Zn/Hg	S/Hg	S/Cd	S/Pb
	200.0	7.0	70.0	10.0	20000.0	2000.0	466800	4668000	46680

ADDITIONAL RATIOS

	Current	Previous	I		
Ca/Sr	1000.0		263/1		
Cr/V	30.0		8/1		
Cu/Mo	1000.0		356/1		
Fe/Co	140.0		615/1		
K/Co	400.0		6350/1		
K/Li	2000.0		6350/1		
Mg/B	10.4		21/1		
S/Cu	4668.0		2668/1		
Se/TI	1000.0		370/1		
Se/Sn	10.0		3.2/1		
Zn/Sn	2000.0		624/1		

LEVELS

All mineral levels are reported in milligrams percent (milligrams per one-hundred grams of hair). One milligram percent (mg%) is equal to ten parts per million (ppm).

NUTRITIONAL ELEMENTS

Extensively studied, the nutrient elements have been well defined and are considered essential for many biological functions in the human body. They play key roles in such metabolic processes as muscular activity, endocrine function, reproduction, skeletal integrity and overall development.

TOXIC ELEMENTS

The toxic elements or "heavy metals" are well-known for their interference upon normal biochemical function. They are commonly found in the environment and therefore are present to some degree, in all biological systems. However, these metals clearly pose a concern for toxicity when accumulation occurs to excess.

ADDITIONAL ELEMENTS

These elements are considered as possibly essential by the human body. Additional studies are being conducted to better define their requirements and amounts needed.

RATIOS

A calculated comparison of two elements to each other is called a ratio. To calculate a ratio value, the first mineral level is divided by the second mineral level.

EXAMPLE: A sodium (Na) test level of 24 mg% divided by a potassium (K) level of 10 mg% equals a Na/K ratio of 2.4 to 1.

SIGNIFICANT RATIOS

If the synergistic relationship (or ratio) between certain minerals in the body is disturbed, studies show that normal biological functions and metabolic activity can be adversely affected. Even at extremely low concentrations, the synergistic and/or antagonistic relationships between minerals still exist, which can indirectly affect metabolism.

TOXIC RATIOS

It is important to note that individuals with elevated toxic levels may not always exhibit clinical symptoms associated with those particular toxic minerals. However, research has shown that toxic minerals can also produce an antagonistic effect on various essential minerals eventually leading to disturbances in their metabolic utilization.

ADDITIONAL RATIOS

These ratios are being reported solely for the purpose of gathering research data. This information will then be used to help the attending health-care professional in evaluating their impact upon health.

REFERENCE INTERVALS

Generally, reference intervals should be considered as guidelines for comparison with the reported test values. These reference intervals have been statistically established from studying an international population of "healthy" individuals.

Important Note: The reference intervals should not be considered as absolute limits for determining deficiency, toxicity or acceptance.

- What are your current symptoms and health history? For last few years, short term memory is declining based on my wife's observations. More forgetful about where I've put things, what I need to do, what was said, etc. Have to make many more notes. Maybe get more easily fatigued than the average person, but nothing extreme. Emotional dysregulation has been a problem for many years. Attempting to manage this better. Brain fog, which increases with emotional dysregulation. A few mild head injuries in my teens. Gallbladder removed many years ago. Mold exposure many years ago for several years with various mold sources in home. Produced rashes on back of knees and eventually eyelids until we found the last source of the mold and removed it. Rashes all went away. Rod and Cone Dystrophy of the eyes diagnosed in 2016. Get occasional cramps in my neck. Healthy weight and otherwise healthy.
- Dental history (Wisdom teeth removed and when? Removed 4/12/91. Any other extractions. N/A First root canal placed? N/A Braces? N/A First amalgam, Not sure about first but could be in late 1980s; one was in 1993 and the other is a mystery but wouldn't be much after this as we stopped doing amalgams a few years later. etc...)
- 3. What dental work do you currently have in place? 3 composite fillings. What part of the dental clean-up have you completed? All 3 amalgams removed 3/13/2023 followed by x-ray to make sure no residual mercury.
- 4. What dentistry did your mother have at any time before or during pregnancy? I remember her always having false teeth so she may be have had this done before I was born. Not sure.
- 5. What vaccinations have you had and when (including flu and especially travel shots)? Received childhood vaccines in the 1960s and then the round of shots in the military in the early 1980s. Got Hep B in 1984. No flu shots, travel shots or any others since then.
- Supplements and medications (including dosages) taken at time of hair test, or for the 3-6 months before the sample was taken? Daily: 30 mg zinc glycinate chelate, and 200 mcg selenium as L-selenomethionine, 4000-6000 IU vitamin d3.
- 7. What is your age, height and weight? 60 now, but 59 at time of test. 5'6 ³/₄", 160 lb.
- 8. Other information you feel may be relevant? Right handed. Diet: Not high carb (moderate fruits, especially berries, whole grains), moderate healthy fats (butter, coconut oil, olive). Drink kefir and kombucha for probiotic. Currently and for last several years work at home as technical support in healthcare industry.
- 9. What is your location city & country (so that we can learn where certain toxins are more prevalent). Madison, WI USA