

SEX: Male AGE: 51

## Toxic & Essential Elements; Hair

Aluminum Antimony Arsenic Barium			METALS	
Antimony Arsenic Barium		RESULT μg/g	REFERENCE INTERVAL	68th PERCENTILE
Arsenic Barium	(Al)	1.6	< 7.0	
Barium	(Sb)	0.018	< 0.066	
	(As)	0.045	< 0.080	
Dan Alleria	(Ba)	0.32	< 1.0	
Beryllium	(Be)	< 0.01	< 0.020	
Bismuth	(Bi)	0.010	< 2.0	
Cadmium	(Cd)	0.020	< 0.065	
Lead	(Pb)	0.24	< 0.80	
Mercury	(Hg)	17	< 0.80	
Platinum	(Pt)	< 0.003	< 0.005	
Thallium	(TI)	0.001	< 0.002	
Thorium	(Th)	< 0.001	< 0.002	
Uranium	(U)	0.005	< 0.060	
Nickel	(Ni)	0.36	< 0.20	
Silver	(Ag)	0.02	< 0.08	
Tin	(Sn)	0.03	< 0.30	•
Titanium	(Ti)	0.20	< 0.60	
Total Toxic Representa	tion			
		ESSENTIAL AND	OTHER ELEMENTS	The state of the s
		RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 2.5 <sup>th</sup> 16 <sup>th</sup> 50 <sup>th</sup> 84 <sup>th</sup> 97.5 <sup>th</sup>
	(0-)		11/3/2/17/14	
Calcium	(Ca)	350	200- 750	
	(Ca)	356 49	200- 750 25- 75	
Magnesium	(Mg)	49	25- 75	
Magnesium Sodium	(Mg) (Na)	49 23	25- 75 20- 180	
Magnesium Sodium Potassium	(Mg) (Na) (K)	49 === 23 21	25- 75 20- 180 9- 80	
Magnesium Sodium Potassium Copper	(Mg) (Na) (K) (Cu)	49 23 21 12	25- 75 20- 180 9- 80 11- 30	
Magnesium Sodium Potassium Copper Zinc	(Mg) (Na) (K) (Cu) (Zn)	49 23 21 12 230	25- 75 20- 180 9- 80 11- 30 130- 200	
Magnesium Sodium Potassium Copper Zinc Manganese	(Mg) (Na) (K) (Cu) (Zn) (Mn)	49 23 21 12 230 0.18	25- 75 20- 180 9- 80 11- 30 130- 200 0.08- 0.50	
Magnesium Sodium Potassium Copper Zinc Manganese Chromium	(Mg) (Na) (K) (Cu) (Zn) (Mn) (Cr)	49 23 21 12 230 0.18 0.41	25- 75 20- 180 9- 80 11- 30 130- 200 0.08- 0.50 0.40- 0.70	
Magnesium Sodium Potassium Copper Zinc Manganese Chromium Vanadium	(Mg) (Na) (K) (Cu) (Zn) (Mn) (Cr)	49 23 21 12 230 0.18 0.41 0.023	25- 75 20- 180 9- 80 11- 30 130- 200 0.08- 0.50 0.40- 0.70 0.018- 0.065	
Magnesium Sodium Potassium Copper Zinc Manganese Chromium Vanadium Molybdenum	(Mg) (Na) (K) (Cu) (Zn) (Mn) (Cr) (V) (Mo)	49 23 21 12 230 0.18 0.41 0.023 0.029	25- 75 20- 180 9- 80 11- 30 130- 200 0.08- 0.50 0.40- 0.70 0.018- 0.065 0.025- 0.060	
Magnesium Sodium Potassium Copper Zinc Manganese Chromium Vanadium Molybdenum Boron	(Mg) (Na) (K) (Cu) (Zn) (Mn) (Cr) (V) (Mo) (B)	49 23 21 12 230 0.18 0.41 0.023 0.029 2.0	25- 75 20- 180 9- 80 11- 30 130- 200 0.08- 0.50 0.40- 0.70 0.018- 0.065 0.025- 0.060 0.40- 3.0	
Magnesium Sodium Potassium Copper Zinc Manganese Chromium Vanadium Molybdenum Boron	(Mg) (Na) (K) (Cu) (Zn) (Mn) (Cr) (V) (Mo) (B)	49 23 21 12 230 0.18 0.41 0.023 0.029 2,0 1.2	25- 75 20- 180 9- 80 11- 30 130- 200 0.08- 0.50 0.40- 0.70 0.018- 0.065 0.025- 0.060 0.40- 3.0 0.25- 1.8	
Magnesium Sodium Potassium Copper Zinc Manganese Chromium Vanadium Molybdenum Boron Iodine Lithium	(Mg) (Na) (K) (Cu) (Zn) (Mn) (Cr) (V) (Mo) (B) (I)	49 23 21 12 230 0.18 0.41 0.023 0.029 2,0 1.2 < 0.004	25- 75 20- 180 9- 80 11- 30 130- 200 0.08- 0.50 0.40- 0.70 0.018- 0.065 0.025- 0.060 0.40- 3.0 0.25- 1.8 0.007- 0.020	
Magnesium Sodium Potassium Copper Zinc Manganese Chromium Vanadium Molybdenum Boron lodine Lithium Phosphorus	(Mg) (Na) (K) (Cu) (Zn) (Mn) (Cr) (V) (Mo) (B) (I) (Li) (P)	49 23 21 12 230 0.18 0.41 0.023 0.029 2.0 1.2 < 0.004	25- 75 20- 180 9- 80 11- 30 130- 200 0.08- 0.50 0.40- 0.70 0.018- 0.065 0.025- 0.060 0.40- 3.0 0.25- 1.8 0.007- 0.020 150- 220	
Magnesium Sodium Potassium Copper Zinc Manganese Chromium Vanadium Molybdenum Boron lodine Lithium Phosphorus Selenium	(Mg) (Na) (K) (Cu) (Zn) (Mn) (Cr) (V) (Mo) (B) (I) (Li) (P) (Se)	49 23 21 12 230 0.18 0.41 0.023 0.029 2.0 1.2 < 0.004 173 0.99	25- 75 20- 180 9- 80 11- 30 130- 200 0.08- 0.50 0.40- 0.70 0.018- 0.065 0.025- 0.060 0.40- 3.0 0.25- 1.8 0.007- 0.020 150- 220 0.70- 1.2	
Magnesium Sodium Potassium Copper Zinc Manganese Chromium Vanadium Molybdenum Boron Iodine Lithium Phosphorus Selenium Strontium	(Mg) (Na) (K) (Cu) (Zn) (Mn) (Cr) (V) (Mo) (B) (I) (Li) (P) (Se) (Sr)	49 23 21 12 230 0.18 0.41 0.023 0.029 2.0 1.2 < 0.004 173 0.99 0.76	25- 75 20- 180 9- 80 11- 30 130- 200 0.08- 0.50 0.40- 0.70 0.018- 0.065 0.025- 0.060 0.40- 3.0 0.25- 1.8 0.007- 0.020 150- 220 0.70- 1.2 0.30- 3.5	
Magnesium Sodium Potassium Copper Zinc Manganese Chromium Vanadium Molybdenum Boron Iodine Lithium Phosphorus Selenium Strontium Sulfur	(Mg) (Na) (K) (Cu) (Zn) (Mn) (Cr) (V) (Mo) (B) (I) (Li) (P) (Se) (Sr) (S)	49 23 21 12 230 0.18 0.41 0.023 0.029 2.0 1.2 < 0.004 173 0.99 0.76 44800	25- 75 20- 180 9- 80 11- 30 130- 200 0.08- 0.50 0.40- 0.70 0.018- 0.065 0.025- 0.060 0.40- 3.0 0.25- 1.8 0.007- 0.020 150- 220 0.70- 1.2 0.30- 3.5 44000- 50000	
Magnesium Sodium Potassium Copper Zinc Manganese Chromium Vanadium Molybdenum Boron lodine Lithium Phosphorus Selenium Strontium Sulfur Cobalt	(Mg) (Na) (K) (Cu) (Zn) (Mn) (Cr) (V) (Mo) (B) (I) (Li) (P) (Se) (Sr) (S)	49 23 21 12 230 0.18 0.41 0.023 0.029 2.0 1.2 < 0.004 173 0.99 0.76 44800 0.004	25- 75 20- 180 9- 80 11- 30 130- 200 0.08- 0.50 0.40- 0.70 0.018- 0.065 0.025- 0.060 0.40- 3.0 0.25- 1.8 0.007- 0.020 150- 220 0.70- 1.2 0.30- 3.5 440C 3- 50000 0.004- 0.020	
Magnesium Sodium Potassium Copper Zinc Manganese Chromium Vanadium Molybdenum Boron Iodine Lithium Phosphorus Selenium Strontium Sulfur Cobalt	(Mg) (Na) (K) (Cu) (Zn) (Mn) (Cr) (V) (Mo) (B) (I) (Li) (P) (Se) (Sr) (S) (Co) (Fe)	49 23 21 12 230 0.18 0.41 0.023 0.029 2.0 1.2 < 0.004 173 0.99 0.76 44800 0.004 5.0	25- 75 20- 180 9- 80 11- 30 130- 200 0.08- 0.50 0.40- 0.70 0.018- 0.065 0.025- 0.060 0.40- 3.0 0.25- 1.8 0.007- 0.020 150- 220 0.70- 1.2 0.30- 3.5 44007- 50000 0.004- 0.020 7.0- 16	
Magnesium Sodium Potassium Copper Zinc Manganese Chromium Vanadium Molybdenum Boron lodine Lithium Phosphorus Selenium Strontium Sulfur Cobalt	(Mg) (Na) (K) (Cu) (Zn) (Mn) (Cr) (V) (Mo) (B) (I) (Li) (P) (Se) (Sr) (S)	49 23 21 12 230 0.18 0.41 0.023 0.029 2.0 1.2 < 0.004 173 0.99 0.76 44800 0.004	25- 75 20- 180 9- 80 11- 30 130- 200 0.08- 0.50 0.40- 0.70 0.018- 0.065 0.025- 0.060 0.40- 3.0 0.25- 1.8 0.007- 0.020 150- 220 0.70- 1.2 0.30- 3.5 440C 3- 50000 0.004- 0.020	
Calcium Magnesium Sodium	(Mg)	49	25- 75	

Zircomum		V.44	RATIOS		
S	PECIMEN DATA				
COMMENTS:		ELEMENTS	RATIOS	RANGE	
		Ca/Mg	7.27	4- 30	
Date Collected: 11/06/2012	Sample Size: 0.19 g	Ca/P	2.06	0.8- 8	
Date Received: 11/13/2012	Sample Type: Head	Na/K	1.1	0.5- 10	
Date Completed: 11/14/2012	Hair Color: Brown	Zn/Cu	19.2	4- 20	
Methodology: ICP/MS	Treatment:	Zn/Cd	> 999	> 800	
The state of the s	Shampoo:				



**PATIENT: Number 762** 

follow up SEX: Male AGE: 52

This Hair Test was made after 105 DMSA+ALA days-on

during a 7+ months period.

## Toxic & Essential Elements; Hair

TOXIC METALS				
		RESULT μg/g	REFERENCE INTERVAL	PERCENTILE 68 <sup>th</sup> 95 <sup>th</sup>
Aluminum	(AI)	2.3	< 7.0	
Antimony	(Sb)	0.011	< 0.066	•
Arsenic	(As)	0.020	< 0.080	
Barium	(Ba)	0.57	< 1.0	
Beryllium	(Be)	< 0.01	< 0.020	
Bismuth	(Bi)	0.007	< 2.0	•
Cadmium	(Cd)	< 0.009	< 0.065	
Lead	(Pb)	0.40	< 0.80	
Mercury	(Hg)	2.5	< 0.80	
Platinum	(Pt)	< 0.003	< 0.005	
Thallium	(TI)	< 0.001	< 0.002	
Thorium	(Th)	< 0.001	< 0.002	
Uranium	(U)	0.005	< 0.060	
Nickel	(Ni)	0.12	< 0.20	
Silver	(Ag)	0.02	< 0.08	
Tin	(Sn)	0.04	< 0.30	
Titanium	(Ti)	0.29	< 0.60	
Total Toxic Representation		_		

ESSENTIAL AND OTHER ELEMENTS				
		RESULT	REFERENCE	PERCENTILE
		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)	400	200- 750	•
Magnesium	(Mg)	45	25- 75	•
Sodium	(Na)	28	20- 180	
Potassium	(K)	13	9- 80	
Copper	(Cu)	11	11- 30	
Zinc	(Zn)	330	130- 200	
Manganese	(Mn)	0.18	0.08- 0.50	•
Chromium	(Cr)	0.33	0.40- 0.70	
Vanadium	(V)	0.050	0.018- 0.065	
Molybdenum	(Mo)	0.029	0.025- 0.060	
Boron	(B)	0.91	0.40- 3.0	
lodine	(I)	0.94	0.25- 1.8	
Lithium	(Li)	< 0.004	0.007- 0.020	
Phosphorus	(P)	164	150- 220	
Selenium	(Se)	0.99	0.70- 1.2	-
Strontium	(Sr)	1.1	0.30- 3.5	•
Sulfur	(S)	49300	44000- 50000	
Cobalt	(Co)	0.007	0.004- 0.020	•
Iron	(Fe)	5.9	7.0- 16	
Germanium	(Ge)	0.030	0.030- 0.040	
Rubidium	(Rb)	0.022	0.011- 0.12	
Zirconium	(Zr)	0.11	0.020- 0.44	•

SPECIMEN DATA			RATIOS		
COMMENTS:		ELEMENTS	RATIOS	RANGE	
		Ca/Mg	8.89	4- 30	
Date Collected: 07/19/2013	Sample Size: 0.199 g	Ca/P	2.44	0.8- 8	
Date Received: 07/22/2013	Sample Type: Head	Na/K	2.15	0.5- 10	
Date Completed: 07/23/2013	Hair Color: Brown	Zn/Cu	30	4- 20	
Methodology: ICP/MS	Treatment:	Zn/Cd	> 999	> 800	
	Shampoo:				

## Health history for hair test 762

1. What are your current symptoms and health history?

Lifelong asthma and eczema since early childhood (1-2 years old), early coronary problems (at 42 years old), mild panic disorder, anxiety, poor sleep

2. Dental history (Wisdom teeth removed and when? Any other extractions. First root canal placed? Braces? First amalgam etc...)

Had 5-6 amalgams since childhood. Were redone 10-15 years ago, then 6 years ago. All were removed completely May 2012 without proper care

3. What dental work do you currently have in place? What part of the dental clean-up have you completed?

Amalgams completely removed and substituted with porcelain

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

Mother had lots of amalgam work done before pregnancy. She had a miscarriage with first child, then cam me with lots of difficulty during pregnancy. Could have been a miscarriage too.

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

I had all my typical vaccines at that time (early sixties in Switzerland)

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

Lots of supplements and medications (e.g. Omega 3 DHA/EPA, Curcumin, L-Carnitine, D3, Resveratrol, Green Tea extract, multivitamins, milk thistle, Vit K, Aspirin 325 mgs, Rosuvastatin 10 mgs, Ramipril 10 mgs, Niacin Slow Release 1.5 grs)

7. What is your age, height and weight?

I'm 52, 5 feet 10 inches, 190 pounds

8. Other information you feel may be relevant?

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

Caracas – Venezuela (have lived here for 48 years)