



SEX: Male
AGE: 3

Toxic & Essential Elements; Hair

TOXIC METALS					
		RESULT µg/g	REFERENCE INTERVAL	PERCENTILE	
				68 th	95 th
Aluminum	(Al)	3.4	< 8.0		
Antimony	(Sb)	0.048	< 0.066		
Arsenic	(As)	0.083	< 0.080		
Barium	(Ba)	0.10	< 0.50		
Beryllium	(Be)	< 0.01	< 0.020		
Bismuth	(Bi)	0.12	< 2.0		
Cadmium	(Cd)	< 0.009	< 0.070		
Lead	(Pb)	0.11	< 1.0		
Mercury	(Hg)	0.08	< 0.40		
Platinum	(Pt)	< 0.003	< 0.005		
Thallium	(Tl)	< 0.001	< 0.002		
Thorium	(Th)	< 0.001	< 0.002		
Uranium	(U)	0.002	< 0.060		
Nickel	(Ni)	0.03	< 0.20		
Silver	(Ag)	0.02	< 0.20		
Tin	(Sn)	0.19	< 0.30		
Titanium	(Ti)	0.29	< 1.0		
Total Toxic Representation					

ESSENTIAL AND OTHER ELEMENTS								
		RESULT µg/g	REFERENCE INTERVAL	PERCENTILE				
				2.5 th	16 th	50 th	84 th	97.5 th
Calcium	(Ca)	184	125 - 370					
Magnesium	(Mg)	24	12 - 30					
Sodium	(Na)	72	20 - 200					
Potassium	(K)	170	12 - 200					
Copper	(Cu)	9.8	11 - 18					
Zinc	(Zn)	100	100 - 190					
Manganese	(Mn)	0.06	0.10 - 0.50					
Chromium	(Cr)	0.38	0.43 - 0.80					
Vanadium	(V)	0.031	0.030 - 0.10					
Molybdenum	(Mo)	0.10	0.050 - 0.13					
Boron	(B)	2.8	0.70 - 5.0					
Iodine	(I)	0.40	0.25 - 1.3					
Lithium	(Li)	0.005	0.007 - 0.020					
Phosphorus	(P)	126	150 - 220					
Selenium	(Se)	0.72	0.70 - 1.1					
Strontium	(Sr)	0.21	0.16 - 1.0					
Sulfur	(S)	49200	45500 - 53000					
Cobalt	(Co)	0.006	0.004 - 0.020					
Iron	(Fe)	6.0	7.0 - 16					
Germanium	(Ge)	0.024	0.030 - 0.040					
Rubidium	(Rb)	0.14	0.016 - 0.18					
Zirconium	(Zr)	0.74	0.040 - 1.0					

SPECIMEN DATA		RATIOS		
COMMENTS:		ELEMENTS	RATIOS	RANGE
Date Collected: 1/13/2012		Ca/Mg	7.67	4- 30
Date Received: 1/17/2012		Ca/P	1.46	0.8- 8
Date Completed: 1/18/2012		Na/K	0.424	0.5- 10
Methodology: ICP/MS		Zn/Cu	10.2	4- 20
Sample Size: 0.196 g		Zn/Cd	> 999	> 800
Sample Type: Head				
Hair Color: Brown				
Treatment:				
Shampoo: Rainbow				



HAIR TEST 968 - FOLLOW-UP TEST

SEX: Male

AGE: 6

Toxic & Essential Elements; Hair

TOXIC METALS				PERCENTILE		
		RESULT µg/g	REFERENCE INTERVAL	68 th	95 th	
Aluminum	(Al)	3.0	< 8.0			
Antimony	(Sb)	0.19	< 0.066			
Arsenic	(As)	0.12	< 0.080			
Barium	(Ba)	0.07	< 0.75			
Beryllium	(Be)	< 0.01	< 0.020			
Bismuth	(Bi)	0.029	< 2.0			
Cadmium	(Cd)	0.011	< 0.070			
Lead	(Pb)	0.16	< 1.0			
Mercury	(Hg)	< 0.03	< 0.40			
Platinum	(Pt)	< 0.003	< 0.005			
Thallium	(Tl)	< 0.001	< 0.002			
Thorium	(Th)	< 0.001	< 0.002			
Uranium	(U)	0.001	< 0.060			
Nickel	(Ni)	0.06	< 0.20			
Silver	(Ag)	0.02	< 0.14			
Tin	(Sn)	0.10	< 0.30			
Titanium	(Ti)	0.39	< 0.70			
Total Toxic Representation						

ESSENTIAL AND OTHER ELEMENTS				PERCENTILE				
		RESULT µg/g	REFERENCE INTERVAL	2.5 th	16 th	50 th	84 th	97.5 th
Calcium	(Ca)	103	160- 500					
Magnesium	(Mg)	6	12- 50					
Sodium	(Na)	22	20- 200					
Potassium	(K)	36	12- 140					
Copper	(Cu)	9.1	11- 32					
Zinc	(Zn)	70	110- 190					
Manganese	(Mn)	0.06	0.08- 0.50					
Chromium	(Cr)	0.43	0.40- 0.70					
Vanadium	(V)	0.076	0.025- 0.10					
Molybdenum	(Mo)	0.076	0.040- 0.090					
Boron	(B)	4.1	0.50- 3.5					
Iodine	(I)	0.56	0.25- 1.3					
Lithium	(Li)	< 0.004	0.007- 0.020					
Phosphorus	(P)	161	150- 220					
Selenium	(Se)	0.75	0.70- 1.1					
Strontium	(Sr)	0.03	0.21- 2.1					
Sulfur	(S)	48800	44000- 51000					
Cobalt	(Co)	0.004	0.004- 0.020					
Iron	(Fe)	8.4	7.0- 16					
Germanium	(Ge)	0.035	0.030- 0.040					
Rubidium	(Rb)	0.037	0.008- 0.080					
Zirconium	(Zr)	0.21	0.060- 0.70					

SPECIMEN DATA		RATIOS		
COMMENTS:		ELEMENTS	RATIOS	RANGE
Date Collected: 05/22/2014		Ca/Mg	17.2	4- 30
Date Received: 05/27/2014		Ca/P	0.64	0.8- 8
Date Completed: 05/29/2014		Na/K	0.611	0.5- 10
Methodology: ICP/MS		Zn/Cu	7.69	4- 20
Sample Size: 0.196 g		Zn/Cd	> 999	> 800
Sample Type: Head				
Hair Color: Brown				
Treatment:				
Shampoo: Rainbow Kids				



HAIRTEST: 968 follow-up

SEX: Male

AGE: 7

Toxic & Essential Elements; Hair

TOXIC METALS					
		RESULT μg/g	REFERENCE INTERVAL	PERCENTILE	
				68 th	95 th
Aluminum	(Al)	4.4	< 8.0		
Antimony	(Sb)	0.037	< 0.066		
Arsenic	(As)	0.064	< 0.080		
Barium	(Ba)	0.11	< 0.75		
Beryllium	(Be)	< 0.01	< 0.020		
Bismuth	(Bi)	0.017	< 2.0		
Cadmium	(Cd)	0.017	< 0.070		
Lead	(Pb)	0.14	< 1.0		
Mercury	(Hg)	0.03	< 0.40		
Platinum	(Pt)	< 0.003	< 0.005		
Thallium	(Tl)	< 0.001	< 0.002		
Thorium	(Th)	< 0.001	< 0.002		
Uranium	(U)	0.014	< 0.060		
Nickel	(Ni)	0.07	< 0.20		
Silver	(Ag)	0.03	< 0.14		
Tin	(Sn)	0.07	< 0.30		
Titanium	(Ti)	0.33	< 0.70		
Total Toxic Representation					

ESSENTIAL AND OTHER ELEMENTS								
		RESULT μg/g	REFERENCE INTERVAL	PERCENTILE				
				2.5 th	16 th	50 th	84 th	97.5 th
Calcium	(Ca)	195	160 - 500					
Magnesium	(Mg)	7	12 - 50					
Sodium	(Na)	100	20 - 200					
Potassium	(K)	88	12 - 140					
Copper	(Cu)	49	11 - 32					
Zinc	(Zn)	110	110 - 190					
Manganese	(Mn)	0.06	0.08 - 0.50					
Chromium	(Cr)	0.52	0.40 - 0.70					
Vanadium	(V)	0.077	0.025 - 0.10					
Molybdenum	(Mo)	0.053	0.040 - 0.090					
Boron	(B)	1.5	0.50 - 3.5					
Iodine	(I)	0.48	0.25 - 1.3					
Lithium	(Li)	0.004	0.007 - 0.020					
Phosphorus	(P)	137	150 - 220					
Selenium	(Se)	0.82	0.70 - 1.1					
Strontium	(Sr)	0.42	0.21 - 2.1					
Sulfur	(S)	49400	44000 - 51000					
Cobalt	(Co)	0.004	0.004 - 0.020					
Iron	(Fe)	5.8	7.0 - 16					
Germanium	(Ge)	0.028	0.030 - 0.040					
Rubidium	(Rb)	0.091	0.008 - 0.080					
Zirconium	(Zr)	0.20	0.060 - 0.70					

SPECIMEN DATA		RATIOS		
COMMENTS:		ELEMENTS	RATIOS	RANGE
Date Collected: 08/30/2015		Ca/Mg	27.9	4- 30
Date Received: 09/08/2015		Ca/P	1.42	0.8- 8
Date Completed: 09/13/2015		Na/K	1.14	0.5- 10
Methodology: ICP/MS		Zn/Cu	2.24	4- 20
Sample Size: 0.198 g		Zn/Cd	> 999	> 800
Sample Type: Head				
Hair Color: Brown				
Treatment:				
Shampoo: Ultrasm				



HAIR TEST: 968 follow-up

SEX: Male

AGE: 8

Toxic & Essential Elements; Hair

TOXIC METALS					
		RESULT μg/g	REFERENCE INTERVAL	PERCENTILE	
				68 th	95 th
Aluminum	(Al)	4.2	< 8.0		
Antimony	(Sb)	0.047	< 0.066		
Arsenic	(As)	0.075	< 0.080		
Barium	(Ba)	0.08	< 0.75		
Beryllium	(Be)	< 0.01	< 0.020		
Bismuth	(Bi)	0.009	< 2.0		
Cadmium	(Cd)	< 0.009	< 0.070		
Lead	(Pb)	0.09	< 1.0		
Mercury	(Hg)	< 0.03	< 0.40		
Platinum	(Pt)	< 0.003	< 0.005		
Thallium	(Tl)	< 0.001	< 0.002		
Thorium	(Th)	< 0.001	< 0.002		
Uranium	(U)	0.002	< 0.060		
Nickel	(Ni)	0.10	< 0.20		
Silver	(Ag)	0.01	< 0.14		
Tin	(Sn)	0.06	< 0.30		
Titanium	(Ti)	0.30	< 0.70		
Total Toxic Representation					

ESSENTIAL AND OTHER ELEMENTS								
		RESULT μg/g	REFERENCE INTERVAL	PERCENTILE				
				2.5 th	16 th	50 th	84 th	97.5 th
Calcium	(Ca)	153	160 - 500					
Magnesium	(Mg)	5	12 - 50					
Sodium	(Na)	52	20 - 200					
Potassium	(K)	150	12 - 140					
Copper	(Cu)	14	11 - 32					
Zinc	(Zn)	100	110 - 190					
Manganese	(Mn)	0.22	0.08 - 0.50					
Chromium	(Cr)	0.54	0.40 - 0.70					
Vanadium	(V)	0.094	0.025 - 0.10					
Molybdenum	(Mo)	0.062	0.040 - 0.090					
Boron	(B)	1.8	0.50 - 3.5					
Iodine	(I)	0.38	0.25 - 1.3					
Lithium	(Li)	< 0.004	0.007 - 0.020					
Phosphorus	(P)	130	150 - 220					
Selenium	(Se)	0.86	0.70 - 1.1					
Strontium	(Sr)	0.04	0.21 - 2.1					
Sulfur	(S)	48900	44000 - 51000					
Cobalt	(Co)	0.003	0.004 - 0.020					
Iron	(Fe)	7.5	7.0 - 16					
Germanium	(Ge)	0.039	0.030 - 0.040					
Rubidium	(Rb)	0.12	0.008 - 0.080					
Zirconium	(Zr)	0.12	0.060 - 0.70					

SPECIMEN DATA		RATIOS		
COMMENTS:		ELEMENTS	RATIOS	RANGE
Date Collected: 06/05/2016		Ca/Mg	30.6	4- 30
Date Received: 06/10/2016		Ca/P	1.18	0.8- 8
Date Completed: 06/11/2016		Na/K	0.347	0.5- 10
Methodology: ICP/MS		Zn/Cu	7.14	4- 20
Sample Size: 0.202 g		Zn/Cd	> 999	> 800
Sample Type: Head				
Hair Color: Brown				
Treatment:				
Shampoo: Fairy Tales				

Hair Test 968

1) What are your current symptoms and health history? 6 yr old boy with anxiety issues, older sister has autism. He gets bad croup 1-2 times a year, with each cold, has enlarged tonsils, is of normal height & weight but looks quite thin. (Adrenal fatigue I suspect). He's a picky eater, but otherwise quite healthy and has no other known issues with learning or development. Grinds his teeth at night!

2) Dental history (wisdom teeth removed? First root canal placed? Braces? No dental work at all. Grinds his teeth at night, one tooth cracked from grinding. Getting new/losing baby teeth according to normal schedule.

3) What dental work do you currently have in place? What part of the dental cleanup have you completed? No dental work.

4) What dentistry did your mother have at any time before or during pregnancy? 6 amalgams, all 15+ yrs old.

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

All childhood vaccinations, including yearly flu shots. Mom had all shots/flu shots as well. His vaccines were stopped about about age 4. No Kindergarten shots or Varicella. Mom rec'd flu shot when pregnant.

6) Supplements and medications (including dosages) taken at time of hair test, or for the 3-6 months before the sample was taken. Before first hair test, none really except Epsom salt baths. At time of second hair test, he had completed 40 rounds of AC Chelation, all ALA only, and basic supplements. Zinc, C, E, Mg, A. B5 and occasional ACE.

7) Other information you feel may be relevant? Older sister diagnosed with autism.

8) What is your location - city & country (so that we can learn where certain toxins are more prevalent). First 3 months in Arkansas, 11 months in Kansas, 3 years in Texas, 3 1/2 yrs in Falls Church, Virginia, just moved again, to North Little Rock, AR.