

POTENTIALLY TOXIC ELEMENTS				
TOXIC ELEMENTS	RESULT µg/g	REFERENCE RANGE	PERCENTILE	
			68 <sup>th</sup>	95 <sup>th</sup>
Aluminum	2.5	< 8.0		
Antimony	0.068	< 0.066		
Arsenic	0.15	< 0.080		
Barium	0.37	< 0.75		
Beryllium	< 0.01	< 0.020		
Bismuth	0.021	< 2.0		
Cadmium	0.051	< 0.060		
Lead	0.74	< 1.0		
Mercury	0.87	< 0.40		
Platinum	< 0.003	< 0.005		
Thallium	0.001	< 0.002		
Thorium	< 0.001	< 0.002		
Uranium	0.006	< 0.060		
Nickel	0.04	< 0.20		
Silver	0.02	< 0.10		
Tin	0.14	< 0.30		
Titanium	0.48	< 0.60		
Total Toxic Representation				

ESSENTIAL AND OTHER ELEMENTS							
ELEMENTS	RESULT µg/g	REFERENCE RANGE	PERCENTILE				
			2.5 <sup>th</sup>	16 <sup>th</sup>	50 <sup>th</sup>	84 <sup>th</sup>	97.5 <sup>th</sup>
Calcium	420	200- 700					
Magnesium	30	18- 70					
Sodium	860	20- 200					
Potassium	710	9- 80					
Copper	10	11- 32					
Zinc	170	150- 230					
Manganese	0.12	0.08- 0.50					
Chromium	0.44	0.40- 0.70					
Vanadium	0.053	0.020- 0.075					
Molybdenum	0.039	0.030- 0.060					
Boron	250	0.34- 3.0					
Iodine	0.45	0.25- 1.3					
Lithium	0.025	0.007- 0.020					
Phosphorus	250	150- 220					
Selenium	1.5	0.70- 1.2					
Strontium	0.59	0.30- 3.2					
Sulfur	47800	44000- 50000					
Cobalt	0.004	0.004- 0.020					
Iron	8.6	7.0- 16					
Germanium	0.034	0.030- 0.040					
Rubidium	0.69	0.009- 0.090					
Zirconium	0.11	0.047- 0.70					

SPECIMEN DATA				RATIOS		
<b>COMMENTS:</b>				<b>ELEMENTS</b>	<b>RATIOS</b>	<b>EXPECTED RANGE</b>
Date Collected: 4/9/2010	Sample Size: 0.196 g	Date Received: 4/13/2010	Sample Type: Head	Ca/Mg	14	4- 30
Date Completed: 4/18/2010	Hair Color: Black	Client Reference:	Treatment: Bleach, Dye, Perm	Ca/P	1.68	0.8- 8
Methodology: ICP-MS	Shampoo: Kirkland			Na/K	1.21	0.5- 10
				Zn/Cu	17	4- 20
				Zn/Cd	> 999	> 800

## **Health history for hair test 346**

My son is 13.5 years old. He was diagnosed autistic at age 3. He is non-verbal. He is on strict GFCF diet for the last 6 years. This diet has helped his almost chronic diarrhea. He has not had any major illness so far. He flaps hands when upset or excited. Has strong food cravings and gets agitated when hungry. His focus and attention is poor. He can follow simple instructions. His fine motor control is poor. He knows a few signs but doesn't communicate when in discomfort. He shows anxiety in new places and new tasks. Shows sudden mood swings and gets frustrated quickly. Prone to meltdowns which means running around, jumping, hitting himself and others, scratching, biting. I have noticed that his palms get considerably colder during these episodes. Otherwise he is a happy, obedient and co-operative kid.

He doesn't have any amalgams or any other dental work done on him so far.

Mother didn't have any amalgam or dental work during pregnancy.

He has had polio hepatitis mmr dtap vaccines and boosters. No flu or travel vaccines.

He was taking the following supplements at time the hair test sample was taken :

Biotin - 15mg X 3  
Oil of Oregano - 1500 mg X 2  
Caprylic Acid - 2163 Mg X 2  
Olive Leaf Extract - 150 mg X 2

Custom Probiotics CP1 - 2 at bedtime

Acetylcarnitine - 500 mg  
CoQ10 - 100 mg  
Omega Oils - (Organic Flaxseed Oil 1000 mg, Omega 3 - 500 mg, Omega 6 - 110 mg, Omega 9 - 120 mg )

DMG 125mg  
DMAE 351 mg X 2  
MB12 (chewable) 1000mcg

Taurine 500 mg  
Betaine Hydrochloride 600mg (with Pepsin, Bromelain, Papain)  
Turmeric 450 mg  
Chlorella 500 mg  
Folic Acid 5mg

Vit C 1000 mg with bioflavonoids X 2  
Vit E 200 IU  
Vit A 10000 IU  
Vit D3 1000 IU  
Vit B Complex(B50)

Zinc 65mg  
Selenium 100mcg  
Calcium 600mg  
Magnesium 250mg

Nystatin - 500,000 units X 3

We have stopped Chlorella since then. Increased the Zinc. Mg, B50, CoQ10, Acetylcarnitine, added Milk Thistle extract, stopped Nystatin and started Methyl B12 shots on Alternate days.

He is currently in Atlanta, GA. Till 9 months back he had lived in Mumbai, India.