



PATIENT: Number 914
 SEX: Male
 AGE: 8

Toxic & Essential Elements; Hair

TOXIC METALS			
	RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 68 th 95 th
Aluminum (Al)	12	< 8.0	
Antimony (Sb)	0.022	< 0.066	
Arsenic (As)	0.064	< 0.080	
Barium (Ba)	0.75	< 0.75	
Beryllium (Be)	< 0.01	< 0.020	
Bismuth (Bi)	0.013	< 2.0	
Cadmium (Cd)	0.034	< 0.070	
Lead (Pb)	1.3	< 1.0	
Mercury (Hg)	0.12	< 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)	0.15	< 0.20	
Silver (Ag)	0.09	< 0.14	
Tin (Sn)	0.16	< 0.30	
Titanium (Ti)	0.46	< 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)	379	160- 500			
Magnesium (Mg)	15	12- 50			
Sodium (Na)	280	20- 200			
Potassium (K)	130	12- 140			
Copper (Cu)	47	11- 32			
Zinc (Zn)	82	110- 190			
Manganese (Mn)	0.15	0.08- 0.50			
Chromium (Cr)	0.40	0.40- 0.70			
Vanadium (V)	0.20	0.025- 0.10			
Molybdenum (Mo)	0.056	0.040- 0.090			
Boron (B)	1.1	0.50- 3.5			
Iodine (I)	1.7	0.25- 1.3			
Lithium (Li)	< 0.004	0.007- 0.020			
Phosphorus (P)	150	150- 220			
Selenium (Se)	0.81	0.70- 1.1			
Strontium (Sr)	0.69	0.21- 2.1			
Sulfur (S)	46800	44000- 51000			
Cobalt (Co)	0.006	0.004- 0.020			
Iron (Fe)	8.8	7.0- 16			
Germanium (Ge)	0.026	0.030- 0.040			
Rubidium (Rb)	0.37	0.008- 0.080			
Zirconium (Zr)	0.078	0.060- 0.70			

SPECIMEN DATA		RATIOS		
COMMENTS:		ELEMENTS	RATIOS	RANGE
Date Collected: 01/30/2013	Sample Size: 0.202 g	Ca/Mg	25.3	4- 30
Date Received: 02/05/2013	Sample Type: Head	Ca/P	2.53	0.8- 8
Date Completed: 02/08/2013	Hair Color:	Na/K	2.15	0.5- 10
Methodology: ICP/MS	Treatment:	Zn/Cu	1.74	4- 20
	Shampoo:	Zn/Cd	> 999	> 800

Health history for hair test 914

1. My son, Daniel is autistic
2. He doesn't have filling teeth with amalgam.
3. His dental : Alpha Dental Group.
4. During pregnancy was ok
5. He is taking supplement since 4 years old.
6. Other information : he is difficulty in communication, mood swing.
7. Age 9 years and 8 months, height : 134 cm, weight 33 kg
8. Vaccinations ;

B.C.G	on 10 June 2004	
1st D.P.T		on 28 Sept 2004
2nd DPT		on 04 Nov 2004
3rd DPT		on 14 Dec 2004
Booster DPT		on 15 Dec 2005
1st Polio		on 28 Sept 2004
2nd Polio		on 04 Nov 2004
3rd Polio		on 14 Dec 2004
Booster Polio		on 15 Dec 2005
MMR		on 14 Sept 2005
Varicella		on 10 Oct 2005

1st Hepatitis A	25 July 2006
2nd Hepatitis A	30 Jan 2007

1st Hepatitis B	10 Jun 2004
2nd Hepatitis B	7 July 2004
3rd Hepatitis B	14 Dec 2004

TYPHIM Vi	19 Oct 2006
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Varilrix A701A176B	10 Oct 2005
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Prevenar	19 oct 2006
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9. We were stay in Jakarta, Indonesia and move to Singapore when he was 4 years old.