

*Toxic & Essential Elements; Hair*

TOXIC METALS			
	RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 68 <sup>th</sup> 95 <sup>th</sup>
Aluminum (Al)	7.9	< 8.0	
Antimony (Sb)	0.095	< 0.066	
Arsenic (As)	0.16	< 0.080	
Barium (Ba)	0.31	< 0.50	
Beryllium (Be)	< 0.01	< 0.020	
Bismuth (Bi)	0.023	< 2.0	
Cadmium (Cd)	0.022	< 0.070	
Lead (Pb)	1.6	< 1.0	
Mercury (Hg)	0.29	< 0.40	
Platinum (Pt)	< 0.003	< 0.005	
Thallium (Tl)	0.001	< 0.002	
Thorium (Th)	0.002	< 0.002	
Uranium (U)	0.23	< 0.060	
Nickel (Ni)	0.23	< 0.20	
Silver (Ag)	0.04	< 0.20	
Tin (Sn)	0.99	< 0.30	
Titanium (Ti)	0.55	< 1.0	
Total Toxic Representation			

ESSENTIAL AND OTHER ELEMENTS			
	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>
Calcium (Ca)	207	125- 370	
Magnesium (Mg)	11	12- 30	
Sodium (Na)	17	20- 200	
Potassium (K)	110	12- 200	
Copper (Cu)	12	11- 18	
Zinc (Zn)	32	100- 190	
Manganese (Mn)	0.11	0.10- 0.50	
Chromium (Cr)	0.75	0.43- 0.80	
Vanadium (V)	0.096	0.030- 0.10	
Molybdenum (Mo)	0.13	0.050- 0.13	
Boron (B)	0.83	0.70- 5.0	
Iodine (I)	1.3	0.25- 1.3	
Lithium (Li)	< 0.004	0.007- 0.020	
Phosphorus (P)	152	150- 220	
Selenium (Se)	0.98	0.70- 1.1	
Strontium (Sr)	0.53	0.16- 1.0	
Sulfur (S)	45400	45500- 53000	
Cobalt (Co)	0.009	0.004- 0.020	
Iron (Fe)	11	7.0- 16	
Germanium (Ge)	0.029	0.030- 0.040	
Rubidium (Rb)	0.23	0.016- 0.18	
Zirconium (Zr)	0.029	0.040- 1.0	

SPECIMEN DATA		RATIOS		
<b>COMMENTS:</b>		ELEMENTS	RATIOS	RANGE
Date Collected: 12/10/2012	Sample Size: 0.199 g	Ca/Mg	18.8	4- 30
Date Received: 12/19/2012	Sample Type: Head	Ca/P	1.36	0.8- 8
Date Completed: 12/21/2012	Hair Color:	Na/K	0.155	0.5- 10
Methodology: ICP/MS	Treatment:	Zn/Cu	2.67	4- 20
	Shampoo:	Zn/Cd	> 999	> 800

## **Health history for hair test 744**

1. Yeast. PDD-NOS
2. no amalgam .
3. no
4. Wisdom teeth removed two months before pregnancy.
5. had every vaccination before 2.5 years old, now 3 years old.
6. no medication.
7. 3 years old, 105cm, 17kg.
8. i don't know.
9. Beijing /China