



SEX: Female  
DOB: 02/16/1954

AGE: 65

**Toxic & Essential Elements; Hair**

TOXIC METALS			
	RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 68 <sup>th</sup> 95 <sup>th</sup>
Aluminum (Al)	4.1	< 7.0	
Antimony (Sb)	0.013	< 0.050	
Arsenic (As)	0.013	< 0.060	
Barium (Ba)	0.47	< 2.0	
Beryllium (Be)	< 0.01	< 0.020	
Bismuth (Bi)	0.054	< 2.0	
Cadmium (Cd)	0.024	< 0.050	
Lead (Pb)	0.12	< 0.60	
Mercury (Hg)	0.14	< 0.80	
Platinum (Pt)	< 0.003	< 0.005	
Thallium (Tl)	< 0.001	< 0.002	
Thorium (Th)	< 0.001	< 0.002	
Uranium (U)	0.020	< 0.060	
Nickel (Ni)	0.08	< 0.30	
Silver (Ag)	0.02	< 0.15	
Tin (Sn)	0.06	< 0.30	
Titanium (Ti)	0.21	< 0.70	
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)	470	300- 1200			
Magnesium (Mg)	150	35- 120			
Sodium (Na)	110	20- 250			
Potassium (K)	26	8- 75			
Copper (Cu)	11	11- 37			
Zinc (Zn)	160	140- 220			
Manganese (Mn)	0.14	0.08- 0.60			
Chromium (Cr)	0.35	0.40- 0.65			
Vanadium (V)	0.014	0.018- 0.065			
Molybdenum (Mo)	0.019	0.020- 0.050			
Boron (B)	9.4	0.25- 1.5			
Iodine (I)	0.32	0.25- 1.8			
Lithium (Li)	< 0.004	0.007- 0.020			
Phosphorus (P)	142	150- 220			
Selenium (Se)	1.3	0.55- 1.1			
Strontium (Sr)	0.96	0.50- 7.6			
Sulfur (S)	47500	44000- 50000			
Cobalt (Co)	0.012	0.005- 0.040			
Iron (Fe)	4.1	7.0- 16			
Germanium (Ge)	0.031	0.030- 0.040			
Rubidium (Rb)	0.028	0.007- 0.096			
Zirconium (Zr)	0.035	0.020- 0.42			

SPECIMEN DATA		RATIOS	
<b>COMMENTS:</b>		<b>ELEMENTS</b>	<b>RATIOS</b>
Date Collected: 09/19/2019		Ca/Mg	3.13
Date Received: 09/27/2019		Ca/P	3.31
Date Reported: 09/30/2019		Na/K	4.23
Methodology: ICP/MS		Zn/Cu	14.5
Sample Size: 0.197 g	Sample Type: Head	Zn/Cd	> 999
Hair Color: Gray	Treatment:		
Shampoo: Jr Liggetts			
		<b>RANGE</b>	
		4- 30	
		1- 12	
		0.5- 10	
		4- 20	
		> 800	



SEX: Female  
AGE: 64

### Toxic & Essential Elements; Hair

TOXIC METALS					
		RESULT µg/g	REFERENCE INTERVAL	PERCENTILE	
				68 <sup>th</sup>	95 <sup>th</sup>
Aluminum (Al)		5.5	< 7.0		
Antimony (Sb)		< 0.01	< 0.050		
Arsenic (As)		0.012	< 0.060		
Barium (Ba)		0.41	< 2.0		
Beryllium (Be)		< 0.01	< 0.020		
Bismuth (Bi)		0.45	< 2.0		
Cadmium (Cd)		0.012	< 0.050		
Lead (Pb)		0.08	< 0.60		
Mercury (Hg)		0.23	< 0.80		
Platinum (Pt)		< 0.003	< 0.005		
Thallium (Tl)		< 0.001	< 0.002		
Thorium (Th)		< 0.001	< 0.002		
Uranium (U)		0.011	< 0.060		
Nickel (Ni)		0.09	< 0.30		
Silver (Ag)		0.01	< 0.15		
Tin (Sn)		0.12	< 0.30		
Titanium (Ti)		0.66	< 0.70		
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)		726	300- 1200		
Magnesium (Mg)		96	35- 120		
Sodium (Na)		15	20- 250		
Potassium (K)		4	8- 75		
Copper (Cu)		10	11- 37		
Zinc (Zn)		160	140- 220		
Manganese (Mn)		0.09	0.08- 0.60		
Chromium (Cr)		0.34	0.40- 0.65		
Vanadium (V)		0.021	0.018- 0.065		
Molybdenum (Mo)		0.017	0.020- 0.050		
Boron (B)		5.4	0.25- 1.5		
Iodine (I)		0.37	0.25- 1.8		
Lithium (Li)		< 0.004	0.007- 0.020		
Phosphorus (P)		150	150- 220		
Selenium (Se)		0.90	0.55- 1.1		
Strontium (Sr)		1.6	0.50- 7.6		
Sulfur (S)		45100	44000- 50000		
Cobalt (Co)		0.016	0.005- 0.040		
Iron (Fe)		6.9	7.0- 16		
Germanium (Ge)		0.034	0.030- 0.040		
Rubidium (Rb)		0.004	0.007- 0.096		
Zirconium (Zr)		0.041	0.020- 0.42		

SPECIMEN DATA		RATIOS	
<b>COMMENTS:</b>		<b>ELEMENTS</b>	<b>RATIOS</b>
Date Collected: 10/02/2018		Ca/Mg	7.56
Date Received: 10/09/2018		Ca/P	4.84
Date Completed: 10/11/2018		Na/K	3.75
Methodology: ICP/MS		Zn/Cu	16
Sample Size: 0.199 g		Zn/Cd	> 999
Sample Type: Head			
Hair Color: Gray			
Treatment:			
Shampoo: Jr Liggetts			
		<b>RANGE</b>	
		4- 30	
		1- 12	
		0.5- 10	
		4- 20	
		> 800	



SEX: Female  
AGE: 62

### Toxic & Essential Elements; Hair

TOXIC METALS			
	RESULT µg/g	REFERENCE INTERVAL	PERCENTILE 68 <sup>th</sup> 95 <sup>th</sup>
Aluminum (Al)	3.3	< 7.0	
Antimony (Sb)	< 0.01	< 0.050	
Arsenic (As)	0.017	< 0.060	
Barium (Ba)	0.14	< 2.0	
Beryllium (Be)	< 0.01	< 0.020	
Bismuth (Bi)	0.004	< 2.0	
Cadmium (Cd)	< 0.009	< 0.050	
Lead (Pb)	1.3	< 0.60	
Mercury (Hg)	0.25	< 0.80	
Platinum (Pt)	< 0.003	< 0.005	
Thallium (Tl)	< 0.001	< 0.002	
Thorium (Th)	< 0.001	< 0.002	
Uranium (U)	0.015	< 0.060	
Nickel (Ni)	0.05	< 0.30	
Silver (Ag)	0.01	< 0.15	
Tin (Sn)	0.10	< 0.30	
Titanium (Ti)	0.38	< 0.70	
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)	259	300- 1200			
Magnesium (Mg)	74	35- 120			
Sodium (Na)	12	20- 250			
Potassium (K)	7	8- 75			
Copper (Cu)	47	11- 37			
Zinc (Zn)	160	140- 220			
Manganese (Mn)	0.09	0.08- 0.60			
Chromium (Cr)	0.27	0.40- 0.65			
Vanadium (V)	0.013	0.018- 0.065			
Molybdenum (Mo)	0.020	0.020- 0.050			
Boron (B)	1.9	0.25- 1.5			
Iodine (I)	0.21	0.25- 1.8			
Lithium (Li)	< 0.004	0.007- 0.020			
Phosphorus (P)	135	150- 220			
Selenium (Se)	0.53	0.55- 1.1			
Strontium (Sr)	0.44	0.50- 7.6			
Sulfur (S)	41500	44000- 50000			
Cobalt (Co)	0.005	0.005- 0.040			
Iron (Fe)	6.2	7.0- 16			
Germanium (Ge)	0.030	0.030- 0.040			
Rubidium (Rb)	0.008	0.007- 0.096			
Zirconium (Zr)	0.059	0.020- 0.42			

SPECIMEN DATA		RATIOS	
<b>COMMENTS:</b>		<b>ELEMENTS</b>	<b>RATIOS</b>
Date Collected: 08/01/2016		Ca/Mg	3.5
Date Received: 08/05/2016		Ca/P	1.92
Date Completed: 08/10/2016		Na/K	1.71
Methodology: ICP/MS		Zn/Cu	3.4
Sample Size: 0.197 g	Sample Type: Head	Zn/Cd	> 999
Hair Color: Gray	Treatment:		
Shampoo:			
		<b>RANGE</b>	
		4- 30	
		1- 12	
		0.5- 10	
		4- 20	
		> 800	

1) Have nights of not sleeping, maybe once per week. Sweating sometimes easily, other times not so well. Still have tinnitus, more than previously. Tired at end of round and right after. Energy improves before next round and tennis is much better the longer since a round. Quit chelating in June of this year, as I became allergic to DMSA. At that time had finished 100 rounds of chelating. Last 10 rounds at 25 mg DMSA and 250 mg of ALA every three hours. Since I have waited for DMPS to become available. Have started 25 mg of DMPS every 6 hours and plan to complete 3 rounds of DMPS only. Then add 250 mg of ALA every 3 hours and complete another 50 rounds. Achy joints in areas that have had aches before.

2) All wisdom teeth removed as a Junior in high school.. Some of them impacted. Had 4 teeth extracted before starting chelating. All had root canals. Had 10 Hg fillings for 30+ years.

3) All amalgams replaced with ceramic. All crowns taken off, teeth cleaned and replace to make sure no amalgam under the crowns. All dental work was completed prior to January 2017. Chelating from January 2017 - 100+ rounds..

4) Have no idea what dental work my mother had when she was pregnant with me.

5) I had all childhood vaccinations and some adult flu shots before I knew better. I did not understand until recently that they have now replace mercury with aluminum in the current vaccinations. Will now avoid them also.

6) Magnesium L-Threonate - 2000 mg, Liposomal Vit. C. - 1000 mg (add more when achy), Vit. K2 - 180 mcg, EGCG - 400 mg, Krill Oil - 1000 mg, Rhodiola - 500 mg, Resveratrol - 200 mg, Zinc - 50 mg, Schizandra - 580 mg, Berberine and Micro PQQ - 500 mg, Astaxanthin - 4 mg, Ubiquinol - 100 mg, Turmeric 900mg, Selenium 200 mcg.

7) 65, 5'10", 160 lbs.

8) Adrenyl fatigue?

9) Holland, MI - last 6 months, Englewood, FL - previous 6 months