

Heavy Metals and Your Health

Metals Testing: Hair, Blood, Urine and Fecal



Today, with increasing pollution levels, the presence of toxic metals in the environment is constantly growing. Chemical products, fertilizers, industrial paint, building materials, fish, silver dental fillings, and vaccines are just some of the sources of heavy metals in everyday life. Toxic metals may normally be present in the body in very low levels, but continuous exposure or metabolic abnormalities can cause accumulation of heavy metals in body tissues, and subsequently, in the brain.

Many symptoms of heavy metals poisoning are identical to symptoms of neurological and psychiatric disorders; therefore, it is difficult or impossible to identify their cause without expert laboratory testing.

Test results frequently show high heavy metal levels coupled with low mineral levels in people with developmental and neurological disorders, chronic fatigue, as well as apparently healthy individuals not feeling "at 100 percent."

Why is Metals Testing Important?

Metals testing is important for measuring toxic metals that can impede development and normal brain functioning, as well as measuring levels of minerals essential for normal growth and good health.

It is equally important to measure levels of minerals, which play an essential part in numerous physiochemical reactions within body cells. These reactions include receiving nutrients, filtering, emulsifying, absorbing vitamins, transforming energy, eliminating toxins, and many others. Toxic overload and metabolic imbalances favor minerals depletion.

The Great Plains Laboratory, Inc. can check metal levels in hair, urine, blood, and stool, using samples appropriate for each specific situation.

Determining the Best Testing Method

Hair is ideal for the initial evaluation because of easy sample collection procedures, accuracy, and economic price. As blood transports metals to body tissues and hair follicles, toxic elements get incorporated and excreted in the hair tissue.

The hair test also provides exact ratios between nutrients and toxic metals. The results show levels of 39 toxic and essential elements and 5 ratios.

The blood test is best for detecting recent heavy metals poisoning and for measuring levels of minerals in the body.

Urine and **fecal** tests are most sensitive after taking a chelating agent. Chelating agents help extract heavy metals deposited in the tissues and bone. These tests are also important for evaluating the efficiency of chelating treatments since they measure levels of metals excreted from the tissues during the chelation. Urine and fecal element tests are not recommended unless using a chelating agent before sample collection.



Toxic metals, can affect development, neurological functioning, and overall health.



Important Markers in Metals Testing

- **Mercury** can cause depression, fatigue, developmental disorders, neurological and movement disorders, and more.
- **Aluminum** can be an important factor in Alzheimer's disease.
- **Lead** can cause depression, nausea, fatigue, communication and concentration problems, developmental problems, neurological and movement disorders, and more.
- **Zinc** deficiency can be responsible for allergies, developmental problems, hair loss, acne, weight problems, and more.
- **Magnesium** deficiency can cause anxiety, depression, spasms, movement disorders, and more.
- **Copper** deficiency can cause increasing cholesterol levels, anemia and chronic infections, and more.
- **Cobalt** deficiency can be responsible for bad circulation, migraines, and spasms.

Easy to Understand Results

A free phone consultation with our nutritional consultant is available to practitioners and patients with physician approval.

Recommended for Patients With:

- AD(H)D
- Alzheimer's Disease
- Anemia
- Anxiety or Excessive Stress
- Autism Spectrum Disorders
- Chronic Fatigue
- Depression
- Digestive Disorders
- Food Allergies
- Migraines & Spasms
- Mood Swings
- Movement Disorders
- OCD
- Psychosis
- Reproductive Problems
- Skin Problems & Acne
- Sleep Disorders
- Tic Disorders / Tourette's Syndrome
- Weak Nails



twitter.com/greatplainslab | facebook.com/GPL4U
www.linkedin.com/company/the-great-plains-laboratory-inc.

POTENTIALLY TOXIC ELEMENTS							
TOXIC ELEMENTS	RESULT µg/g	REFERENCE RANGE	PERCENTILE				
			68 th	95 th			
Aluminum	40	< 8.0					
Antimony	0.14	< 0.000					
Arsenic	0.067	< 0.080					
Beryllium	< 0.01	< 0.020					
Bismuth	0.034	< 2.0					
Cadmium	0.64	< 0.15					
Lead	1.9	< 1.0					
Mercury	< 0.03	< 0.40					
Platinum	0.003	< 0.005					
Thallium	0.005	< 0.010					
Thorium	< 0.001	< 0.005					
Uranium	0.011	< 0.060					
Nickel	0.66	< 0.40					
Silver	68	< 0.20					
Tin	1.0	< 0.30					
Titanium	1.0	< 1.0					
Total Toxic Representation							
ESSENTIAL AND OTHER ELEMENTS							
ELEMENTS	RESULT µg/g	REFERENCE RANGE	PERCENTILE				
			2.5 th	16 th	50 th	84 th	97.5 th
Calcium	653	125- 370					
Magnesium	61	12- 30					
Sodium	85	12- 90					
Potassium	89	12- 40					
Copper	30	8.0- 16					
Zinc	69	100- 190					
Manganese	1.4	0.20- 0.55					
Chromium	0.49	0.26- 0.50					
Vanadium	0.56	0.030- 0.10					
Molybdenum	0.19	0.050- 0.13					

SPECIMEN DATA		RATIOS		
		ELEMENTS	RATIOS	EXPECTED RANGE
Sample Size:	4.9	Ca/Mg	10.7	4- 30
Sample Type:	0.040- 1.0	Ca/P	3.22	0.8- 8
Hair Color:		Na/K	0.955	0.5- 10
Treatment:		Zn/Cu	2.3	4- 20
Shampoo:		Zn/Cd	108	> 800

V06.99

Plains Laboratory, Inc. • 11813 W. 77 Street, Lenexa KS, 66214 • Tel: 913.341.8949 • Fax: 913.341.6207

Analyzed by ©DOCTOR'S DATA, INC. • ADDRESS: 3755 Illinois Avenue, St. Charles, IL 60174-2420 • CLIA ID NO: 14D0646470 • MEDICARE PROVIDER NO: 148453

Contact Us

www.GPL4U.com
customerservice@GPL4U.com

(913) 341-8949

Fax (913) 341-6207

The Great Plains Laboratory, Inc.
11813 W. 77th St.
Lenexa, KS 66214 USA

We are providers for Blue Cross Blue Shield®, Cigna®, Tricare®, and United Healthcare®.



www.GPL4U.com