

# FUNCTIONAL MEDICINE AND TESTING FOR MINERALS

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*The RBC Erthrocyte Blood Test can determine if you have Mineral Imbalances or Toxic Metal Poisoning.*

## RED BLOOD CELL ELEMENTS



NUTRIENT ELEMENTS							
NUTRIENT ELEMENTS	RESULT $\mu\text{g/g}$	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	13	8 - 31					
Magnesium	56	36 - 64					
Potassium	83	65 - 95					
Phosphorus	590	480 - 745					
Copper	0.64	0.52 - 0.89					
Zinc	13.3	8 - 14.5					
Iron	968	745 - 1050					
Manganese	0.013	0.007 - 0.03					
Chromium	0.013	0.012 - 0.07					
Selenium	0.26	0.19 - 0.38					
Boron	0.036	0.005 - 0.11					
Vanadium	0.0762	0.001 - 0.002					
Molybdenum	0.0008	0.0005 - 0.002					

POTENTIALLY TOXIC ELEMENTS				
TOXIC ELEMENTS	RESULT $\mu\text{g/g}$	REFERENCE RANGE	PERCENTILE	
			95 <sup>th</sup>	99 <sup>th</sup>
Antimony	0.0036	< 0.005		
Arsenic	0.001	< 0.01		
Cadmium	0.006	< 0.005		
Lead	0.047	< 0.09		
Mercury	0.076	< 0.01		

There are many sources for the evaluation of Essential Elements (Minerals) and Toxic elements (Heavy Poisonous Metals) for the healthcare provider to choose from. However, the most effective check/balance of these two mentioned categories is through Red Blood Cell analysis.

This form of evaluation tells the clinician exactly what is in the cells affecting the body. In other testing procedures, there can be an element of concern with contamination or inability to have effective cellular levels. A prime example is a clinician checking minerals or heavy metals from your Blood Serum vs. Packed Red Blood cells. You will have a total different readout in the Serum Sample vs. Packed Red Blood Cells. Hair Analysis for minerals and heavy metals has many more variables to skew the final test results.

After 37+ years of clinical practice of Functional/Integrative medicine, I personally believe **the Red Blood Cell Analysis** for minerals and heavy metals is by far the best studies and are *reproducible*.

Essential minerals are necessary for life, assisting in the production of energy and other important biochemical processes.

Mineral insufficiencies, excesses, or imbalances can lead to illness.

Toxic elements, such as mercury or cadmium, may accumulate in the body due to chronic exposure and may lead to illness at very small amounts.

Some elements, such as lead, mercury, and cadmium, become toxic when too many sneak into the body.

This can lead to chronic symptoms, both physical and mental. These minerals are required for the body's structural tissues and for metabolic functions, particularly enzyme reactions. However, deficiencies or imbalances among elements can lead to problems.

#### **For Example:**

- Low zinc is associated with poor wound healing, weight problems, depressed libido, hair loss, and impotence.
- Low magnesium is associated with cardiovascular problems, depression, and anxiety.
- Low copper is associated with joint pain, elevated cholesterol, anemia, and reduced resistance to infection.
- Low manganese is associated with back and joint problems, hypoglycemia, and allergies.

Such imbalances can result from toxins, an improper diet, genetic predisposition, maldigestion or malabsorption of food, some medications, excess stress or an improper balance of nutritional supplements.

Mineral imbalances are linked to: fatigue, headaches, osteoporosis, malnutrition, depression, hypoglycemia, cancer, aggressive behavior, allergies, joint pain, diabetes, digestive disorders, learning disabilities, attention deficit disorder, autism, and hypothyroidism.

### **Toxic Metals**

Toxic metal accumulation is likely in an environment plagued by pollutants.

Toxic metals, normally are present in the body in small amounts. However, they accumulate with excessive or continual exposure or if your body's detoxifying defenses aren't up to par.

These same metals may inhibit enzymes in your body, weaken cell membranes, or impair nutrient delivery, which can lead to illness.

Exposure most commonly occurs through everyday living but may result from an industrial work environment.

Examples include exposure to cigarette smoke (cadmium), hydrogenated oils (nickel), antiperspirants and antacids (aluminum), some toothpastes and cans (tin), tap water (lead), and tooth fillings and fish (mercury).

- Excess lead is associated with fatigue, constipation, insomnia, emotional disturbances, hyperactivity, and learning disabilities in children.
- Excess aluminum is associated with Alzheimer's disease and may also lead to the depletion of phosphorus in the body, which is critical for bone health.
- Excess arsenic is associated with fatigue, skin problems, and tingling in the extremities.
- Excess cadmium is associated with fatigue, tissue aging, musculoskeletal pain, anemia, and hypertension. **RBC erythrocyte** is considered the best evaluation of long term mineral status.

**Dr. Badanek has been and currently is 37 years into active/private practice in the Ocala/Marion County, Florida region. Dr. Badanek practices Natural/Holistic Medicine through the use of Functional/Integrative Models for diagnostic and treatment protocols for the health challenged. Find him online at [Dr.Badanek.com](http://Dr.Badanek.com) and [www.alternativewholistic.com](http://www.alternativewholistic.com), and see what the facility has to offer the sick and health challenged. To schedule an appointment call 352-622-1151**

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