## **Health Science News Page**



Exclusive Information from the Dr. Rath Research Institute

## ARE YOU TAKING ENOUGH MAGNESIUM?

Magnesium is the fourth most abundant mineral in our body and while it is critical in human health, its role is highly underappreciated.

Our diet provides less than half of the recommended daily allowance of 320-420mg/day and 50-75% of the population is chronically magnesium deficient. Magnesium deficiency has been associated with advanced age, stress, excessive alcohol consumption, smoking, and diseases affecting the digestive tract, liver, and kidneys. Drugs such as diuretics further remove the available magnesium in the body. Magnesium deficiency is not easy to identify because it lacks specific symptoms. It can manifest as dizziness, difficulty in concentration, irritability, fatigue, anxiety, depression, constipation, headaches, and muscle cramps.

Why do we need magnesium? This mineral is vital for cellular energy production in the form of ATP which is important for all biological functions. It is especially recognized by athletes for improving their physical performance and recovery. Magnesium participates as a cofactor in more than 300 biochemical processes within the body, including the synthesis of DNA and RNA and the production of the antioxidant glutathione.

Magnesium is important in cardiovascular health. It supports contractions of the heart muscle and regular heartbeat. It is also important in keeping the blood vessels strong by its involvement in collagen production and preserving the tone and elasticity of vascular smooth muscles. These muscle relaxant properties support healthy blood pressure. Low magnesium levels are associated with higher LDL cholesterol in the blood and an increased risk of atherosclerosis, arrhythmia, and heart failure. In addition, magnesium improves the insulin sensitivity of the cells leading to better glycemic control and maintaining healthy levels of blood sugar and hemoglobin A1C.

It is not widely known that magnesium plays a central role in the conduction of nerve impulses and neuromuscular coordination.



It affects the production and protection of membrane phospholipids, the myelin sheath, and synapses. It controls excessive excitation of the nerves by protecting them from damage (excitotoxicity). These neuroprotective properties are important in psychosomatic disorders such as migraines and other chronic pain, anxiety, depression, epilepsy, and Parkinson's and Alzheimer's disease. Given intravenously, magnesium sulfate may reduce the risk of seizures in pregnancy-related high blood pressure (pre-eclampsia), and may help to reduce the chances of preterm delivery.

Magnesium is involved in several physiological processes in the psycho-neuro-endocrine systems and affects the functioning of the hypothalamus and pituitary gland. Its benefits include the production of serotonin and melatonin the relaxing hormones which help in stress reduction and better sleep. Magnesium is essential for memory, learning, and general cognitive health.

Approximately 50-60% of the body's magnesium is stored in the bones where it regulates calcium and phosphorus levels and activates parathyroid hormone and vitamin D. These functions are important for the growth, remodeling, and mineralization of the bones and reducing the risks of osteoporosis and fractures. The anti-inflammatory potential of magnesium helps to reduce bone and joint degeneration.

Magnesium also is a "beauty mineral" important for healthy skin, hair growth, and reduction of premature graying and hair loss.

Magnesium can be obtained from various food sources and supplements. While food processing can remove more than 80% of magnesium, it can be supplied from nuts, seeds (pumpkin, flax, sunflower), beans, grains, green leafy vegetables, and fruits (banana, guava, avocado). Magnesium derived from marine red algae has a unique honeycomb cell structure which makes it more bioavailable than many other magnesium products and it is a good source of natural magnesium.

This information is provided to you by the Dr. Rath Research Institute a leader in the breakthrough of natural health research in the field of cancer, cardiovascular disease and other common diseases. The Institute is a 100% subsidiary of the non-profit Dr. Rath Health Foundation.

The ground-breaking nature of this research poses a threat to the multi-billion dollar pharmaceutical "business with disease". It is no surprise that over the years the drug lobby has attacked Dr. Rath and his research team in an attempt to silence this message. To no avail. During this battle, Dr. Rath has become an internationally renowned advocate for natural health. Says he: "Never in the history of medicine have researchers been so ferociously attacked for their discoveries. It reminds us that health is not given to us voluntarily, but we need to fight for it."

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