

## Magnesium and Health

Magnesium regulates more than 325 enzymes in the body, the most important of which produce, transport, store, and utilize energy. Many aspects of the cell metabolism are regulated by magnesium, such as DNA and RNA synthesis, cell growth, and cell reproduction. Magnesium also orchestrates the electric current that sparks through miles of nerves in our body. Magnesium has numerous physiological roles, among which are control of nerve action, the activity of the heart, neuromuscular transmission, muscular contraction, vascular tone, blood pressure, and peripheral blood flow. Magnesium modulates and controls the entry and release of calcium from the cell, which determines muscular activity. Without magnesium, muscle and nerve functions are compromised and energy is diminished. We are operating with the power turned off. Muscular weakness, soft bones, anxiety, heart attacks, arrhythmia, and even seizures and convulsions can result.

Magnesium is of therapeutic value in treating a myriad of symptoms;

1. Anxiety and panic attacks. Magnesium normally helps keep adrenal stress hormones under control.
2. Asthma. Both histamine production and bronchial spasms increase with magnesium deficiency.
3. Blood clots. Magnesium has an important role to play in preventing blood clots and keeping the blood thin- without any side effects.
4. Bowel disease. Magnesium deficiency slows down the bowel, causing constipation, which could lead to toxicity and malabsorption of nutrients as well as colitis.
5. Cystitis. Bladder spasms are worsened by magnesium deficiency.
6. Depression. Serotonin, which elevates mood, is dependent on magnesium. A magnesium-deficient brain is also more susceptible to allergens, foreign substances that in rare instances can cause symptoms similar to mental illness.
7. Detoxification. Magnesium is crucial for the removal of toxic substances and heavy metals such as aluminum and lead from the body.
8. Diabetes. Magnesium enhances insulin secretions, facilitating sugar metabolism. Without magnesium insulin is not able to

- transfer glucose into cells. Glucose and insulin build up in the blood, causing various types of tissue damage.
9. Fatigue. Magnesium-deficient patients commonly experience fatigue because dozens of enzyme systems are underfunctioning. An early symptom of magnesium deficiency is fatigue.
  10. Heart Disease. Magnesium deficiency is common in people with heart disease. Magnesium is administered in hospitals for acute myocardial infarction and cardiac arrhythmia. Like any other muscle, the heart requires magnesium. Magnesium is also used to treat angina, or chest pain.
  11. Hypertension. With insufficient magnesium, blood vessels may go into spasm and cholesterol may rise, both of which lead to blood pressure problems.
  12. Hypoglycemia. Magnesium keeps insulin under control; without magnesium, episodes of low blood sugar can result.
  13. Insomnia. Sleep-regulating melatonin production is disturbed without sufficient magnesium.
  14. Kidney disease. Magnesium deficiency contributes to atherosclerotic kidney failure. Magnesium deficiency creates abnormal lipid levels and worsening blood sugar control in kidney transplant patients.
  15. Migraine. Serotonin balance is magnesium-dependent. Deficiency of serotonin can result in migraine headaches and depression.
  16. Musculoskeletal conditions. Fibrositis, fibromyalgia,, muscle spasms, eye twitches, cramps, and chronic neck and back pain may be caused by magnesium deficiency and can be relieved with magnesium supplements.
  17. Nerve problems. Magnesium alleviates peripheral nerve disturbances throughout the body, such as headaches, muscle contractions, gastrointestinal spasms, and calf, foot, and toe cramps. It is also used in treating the central nervous symptoms of vertigo and confusion.
  18. Obstetrical and gynecological problems. Magnesium helps prevent premenstrual syndrome and dysmenorrhea (cramping pain during menses), is important in the treatment of infertility, and alleviates premature contractions, preeclampsia , and eclampsia in pregnancy. Intravenous magnesium is given in obstetrical wards for pregnancy-induced hypertension and to lesson the risk of cerebral palsy and sudden infant death

- syndrome (SIDS). Magnesium should be a required supplement for pregnant women.
19. Osteoporosis. Use of calcium with Vitamin D to enhance calcium absorption without a balancing amount of magnesium causes further magnesium deficiency, which triggers a cascade of events leading to bone loss.
  20. Raynaud's syndrome. Magnesium helps relax the spastic blood vessels that cause pain and numbness of the fingers.
  21. Tooth decay. Magnesium deficiency causes an unhealthy balance of phosphorus and calcium in saliva, which damages teeth.

Information gathered from;  
"The Magnesium Miracle"  
by Carolyn Dean M.D. N.D.