



Magnesium (250mg)

Stock #1786-6 (180 tablets)

Magnesium is a vital element of the body, concentrated primarily in bones and within each cell. This major mineral is essential for every important biological function, including glucose metabolism, the production and balance of cellular energy, and the manufacturing of nucleic acids and proteins. Magnesium helps preserve the electrical balance of cells, and is essential for membrane integrity, proper muscle contraction, nerve conduction, regular heart beat, and venous health.

Magnesium is essential for calcium absorption. Magnesium suppresses parathyroid hormone (PTH) which extracts calcium from the bones, and stimulates calcitonin, a hormone which increases and maintains calcium stores in the bones. Magnesium also helps nerves to relax after having been stimulated by calcium, thus promoting a healthy balance of muscle and nerve function.

A magnesium deficiency can result in confusion, convulsions, fatigue, loss of appetite, loss of coordination, nausea, tremors, and vomiting. Health experts believe borderline magnesium deficiency is somewhat common. Those most at risk are diabetics, the elderly, extremely athletic individuals, pregnant women, those on weight-loss diets, and people taking certain drugs.

The medical community now acknowledges that even a slight shortage of magnesium can result in life-threatening deviations from the normal heartbeat, also known as arrhythmia. Furthermore, some doctors have begun using magnesium supplements to help protect the heart from damage caused by congested arteries. Studies have proven that areas using "hard" water (water with a high concentration of minerals, including magnesium) have a lower incidence of death resulting from congested arteries.

Research shows the standard American diet is lacking sufficient magnesium, which may be one explanation for the high rate of cardiovascular disease in this country. Unfortunately, experiments have proven that in some people, cellular levels of magnesium can be insufficient, while blood levels of magnesium register as normal. Nevertheless, people in this category are still at risk for cardiovascular disease, including high blood pressure. An article in the *American Journal of Clinical Nutrition* confirms that sufficient magnesium intake can reduce blood pressure levels. However, magnesium is easily depleted by alcohol, caffeine and refined sugar consumption, diuretics, perspiration, and stress. Natural sources of magnesium in food include apples, corn, figs, fresh green vegetables, nuts rich in oil, soybeans, and raw wheat germ. Magnesium supplements can be taken instead, if preferred. Researchers recommend taking 500mg daily.

Along the same lines, current research shows that approximately 20% of heart attack deaths result from coronary artery spasms caused by insufficient amounts of magnesium and an amino acid called tryptophan. While magnesium supplements are readily available, tryptophan has been removed from shelves by the FDA. Sources of tryptophan in foods are turkey meat (highest), poultry, dairy products, eggs, fish, alfalfa, beets, brussel sprouts, cabbage, celery, kale, snapbeans, turnips, most nuts, and soybeans.

Sufficient magnesium intake is critical for pregnant women suffering from pre-eclampsia. Women having this condition may experience symptoms including high blood pressure, protein in the urine, and swelling of the body. This condition should be taken seriously as it can lead to eclampsia, which can cause convulsions, coma, and death. Although science has yet to explain how magnesium helps women with this problem, supplementation is now the preferred therapy.

Magnesium supplements have also been found to help dissolve kidney stones (calcium-oxalate stones). Taking magnesium along with vitamin B₆ seems to increase the effectiveness of preventing stones. A study conducted in 1974 by Harvard researchers, which confirmed studies done in Sweden, found that magnesium and vitamin B₆ help prevent the return of idiopathic calcium-oxalate stones which make up 60% of all kidney stones. The Harvard studies showed that recurrence of these types of stones dropped 92% with supplementation.

Magnesium deficiency is common in diabetics, especially those having developed retinopathy. Magnesium supplementation may help prevent some retinopathy, as well as problems that manifest as heart disease.

Magnesium deficiency has also been found to contribute to headache (either tension or migraine) development. Studies show individuals who suffer from frequent headaches have lower brain and tissue levels of magnesium. Furthermore, low levels of magnesium can actually facilitate the onset of migraines as the tone of both blood vessels

and nerves is dependent on the availability of sufficient magnesium.

A double-blind study of individuals diagnosed with chronic fatigue syndrome (CFS) found that each one had “abnormally low” levels of magnesium in their blood. Those given magnesium sulfate injections experienced greater energy, less pain, and better emotional states than those who were given placebos.

Studies done in Sweden with well-trained athletes showed those who received a magnesium and potassium supplement before going through an exercise stress test experienced a 50% increase in their endurance.

Recent reports suggest magnesium may even help to prevent cancer and strengthen cell walls.

Studies show magnesium can naturally increase the body's levels of vitamin D.