

Magnesium Glycinate

PROFESSIONAL FORMULATION



Item # V-MG
7 oz. (200 grams)
Magnesium Supplement Powder



Vinco's Magnesium Glycinate contains bioavailable magnesium as glycinate which is necessary for Osteo Support, Muscle and Cardiovascular Function.

Magnesium

Magnesium is a cofactor in over 300 enzymatic reactions in the body. It is necessary for the transmission of nerve impulses, muscular activity, temperature regulation, detoxification reactions, and for the formation of healthy bones and teeth. It is involved in energy production and the synthesis of DNA and RNA. A U.S. Department of Agriculture survey revealed that approximately 75 percent of Americans do not ingest the RDA of magnesium. Sub-optimal magnesium intake compromises cellular activity, especially in tissues of the heart, nerves and kidneys.

Magnesium influences many of the activities associated with a wide variety of cardiac medications. For example, magnesium inhibits platelet aggregation, thins the blood, blocks calcium uptake (like calcium channel blocking drugs), and relaxes blood vessels (like ACE inhibitors). Magnesium also increases oxygenation of the heart muscle by improving cardiac contractility

Absorption

Magnesium is absorbed primarily from the jejunum and ileum sections of the small intestine via two mechanisms. One is a carrier-mediated process that operates when magnesium levels are low. The other mechanism is a simple diffusion process that occurs when magnesium levels are higher.

Functions In The Body

Blood Pressure: Can lower elevated blood pressure. However, the effect is usually only moderate, and thus magnesium should not be viewed as a primary treatment for hypertension.

Bone: Involved in calcium metabolism, the synthesis of vitamin D, and the integrity of skeletal bone-crystal formation.

Cardiovascular Function: Magnesium influences many aspects of cardiovascular health. It decreases platelet stickiness, helps thin the blood, blocks calcium uptake, and relaxes blood vessels.

Enzyme Activity: A cofactor for oxidative phosphorylation in the production of ATP. Essential for the production and transfer of energy for protein and lipid synthesis, contractility of muscle, and nerve transmission.

Heart Disease: Adequate magnesium intake reduces the risk of cardiovascular disease and increases the rate of survival following a heart attack.

Metabolism: Required for the metabolism of carbohydrates, proteins and fats, as well as activity related to calcium, phosphorus, and vitamin C. It is vital for the health of nervous and muscular tissues throughout the body.

Teeth: Magnesium helps to bind calcium to tooth enamel, thus creating a barrier to tooth decay.

Clinical Applications

Asthma: Various studies report low magnesium levels in asthma patients. Consuming adequate magnesium may reduce the risk of developing asthma and is frequently useful as part of an overall treatment program. Magnesium sulfate produces smooth muscle relaxation.(1)

Cardiovascular Disease: Magnesium works like many cardiac drugs; it inhibits platelet aggregation, helps thin the blood, blocks calcium uptake, and relaxes blood vessels.(2, 3)

Congestive Heart Failure: Patients with inadequate magnesium levels have lower survival rates than those with normal magnesium levels.(4)

Diabetes: Magnesium is involved in glucose metabolism and insulin secretion. Hypomagnesemia occurs in approximately 25 percent of patients with diabetes. Low levels of magnesium have been reported in childhood Type 1 diabetes and in adults with Type 1 or Type 2 diabetes.(5)

Fatigue: Magnesium is necessary for the synthesis of ATP and it facilitates the transport of potassium into cells. A deficiency of magnesium or potassium can result in fatigue. Magnesium provides improvement for many chronic fatigue patients.(6)

High Blood Pressure: Magnesium has a slight blood pressure lowering effect, especially in magnesium-depleted patients.(7, 8)

Kidney Stones: Low magnesium increases the risk of calcium oxalate stones and supplementation lowers risk and rate of stone formation.(9)

Migraine Headaches: Patients with migraines have low brain magnesium levels(10) and in a study of 3,000 women, 80 percent responded well to magnesium supplementation.(11, 12)

Mitral Valve Prolapse: Magnesium deficiency is found in about 85 percent of MVP cases and magnesium successfully relieves symptoms in most cases.(13, 14)

Muscle Cramps: Muscle cramps, especially during pregnancy, respond well to magnesium supplementation.(15, 16)

Osteoporosis: Magnesium is necessary for bone formation and magnesium deficiency is frequently found in patients with osteoporosis.(17, 18)

PMS: Numerous studies report that women with premenstrual syndrome have low levels of magnesium, and some studies report that magnesium helps to relieve PMS symptoms. Magnesium supplementation significantly improved mood plus women's overall scores on the Menstrual Distress Questionnaire.(19)

Directions for Use:

As a dietary supplement for adults and children. Children up to 12 years of age take 1/2 level teaspoon 1 to 2 times daily, 12 years and older take 1 level teaspoon 1 to 2 times daily, or as directed by a qualified healthcare professional.

Supplement Facts	Serving Size: 1 level tsp. (6 grams)		
	Servings per Container: 30		
		Amount per Serving	% DV
	Magnesium Glycinate	2,000 mg	*
	Magnesium (from Magnesium Glycinate)	300 mg	*

*Daily Value (DV) not established
DV is based on a 2,000 calorie diet.

These statements have not been evaluated by the FDA. This product is not intended to diagnose, treat, cure or prevent any disease.

Other Ingredients: Xylitol.

References

- 1 Skotnicki AB, et al. The Role of Magnesium in the Pathogenesis and Therapy of Bronchial Asthma. *Przegl Lek.* 1997;54(9):630-03. Review.
- 2 Gaby AR. Magnesium: An Inexpensive, Safe, and Effective Treatment for Cardiovascular Disease. *J Advancement Med.* 1986;1:179-81.
- 3 Kh R, et al. Effect of oral magnesium supplementation on blood pressure, platelet aggregation and calcium handling in deoxycorticosterone acetate induced hypertension in rats. *J Hypertens.* Jul2000;18(7):919-26.
- 4 Gottlieb SS, et al. Prognostic Importance of the Serum Magnesium Concentration in Patients with Congestive Heart Failure. *J Am Coll Cardiol.* Oct1990;16(4):827-31.
- 5 Tosiello L. Hypomagnesemia and Diabetes Mellitus. A Review of Clinical Implications. *Arch Intern Med.* Jun1996;156(11):1143-48.
- 6 Cox IM, et al. Red Blood Cell Magnesium and Chronic Fatigue Syndrome. *Lancet.* Mar1991;337(8744):757-60.
- 7 Moore TJ. The Role of Dietary Electrolytes in Hypertension. *J Am Coll Nutr.* 1989;8(Suppl):68S-80S.
- 8 Kh R, et al. Effect of oral magnesium supplementation on blood pressure, platelet aggregation and calcium handling in deoxycorticosterone acetate induced hypertension in rats. *J Hypertens.* Jul2000;18(7):919-26.
- 9 Johansson G, et al. Effects of Magnesium Hydroxide in Renal Stone Disease. *J Am Coll Nutr.* 1982;1(2):179-85.
- 10 Ramadan NM, et al. Low Brain Magnesium in Migraine. Headache. Oct1989;29(9):590-93.
- 11 Weaver K. Magnesium and Its Role in Vascular Reactivity and Coagulation. *Contemp Nutr.* 1987;12(3):1.
- 12 Mauskop A, et al. Role of magnesium in the pathogenesis and treatment of migraines. *Clin Neurosci.* 1998;5(1):24-7.
- 13 Galland LD, et al. Magnesium Deficiency in the Pathogenesis of Mitral Valve Prolapse. *Magnesium.* 1986;5(3-4):165-74.
- 14 Lichodziejewska B, et al. Clinical symptoms of mitral valve prolapse are related to hypomagnesemia and attenuated by magnesium supplementation. *Am J Cardiol.* Mar1997;79(6):768-72.
- 15 Riss P, et al. Clinical Aspects and Treatment of Calf Muscle Cramps During Pregnancy. *Geburtshilfe Frauenheilkd.* May1983;43(5):329-31.
- 16 Dahle LO, et al. The effect of oral magnesium substitution on pregnancy-induced leg cramps. *Am J Perinatol.* Jan1997;14(1):55-7.
- 17 Angus RM, et al. Dietary Intake and Bone Mineral Density. *Bone Miner.* Jul1988;4(3):265-77.
- 18 Rude RK, et al. Magnesium deficiency-induced osteoporosis in the rat: uncoupling of bone formation and bone resorption. *Magnes Res.* Dec1999;12(4):257-67.
- 19 Facchinetti F, et al. Oral Magnesium Successfully Relieves Premenstrual Mood Changes. *Obstet Gynecol.* Aug1991;78(2):177-81.
- 20 Brewer RP, Parra A, Lynch J, Chilukuri V, Borel CO. Cerebral blood flow velocity response to magnesium sulfate in patients after subarachnoid hemorrhage. *J Neurosurg Anesthesiol.* Jul2001;13(3):202-206.
- 21 Harnett MJ, Datta S, Bhavani-Shankar K. The effect of magnesium on coagulation in parturients with preeclampsia. *Anesth Analg.* May2001;92(5):1257-1260.