

Magnesium³

Highly Bioavailable Magnesium Compounds*
(Magnesium Citrate, Bisglycinate & Ascorbate)

Supports healthy cardiovascular, musculoskeletal, endocrine, neurological, and metabolic function.*

Magnesium citrate, bisglycinate, and ascorbate are fully-reacted, organically bound magnesium salts known to have excellent bioavailability.¹⁻⁵ Magnesium³ is carefully formulated with only minimal and natural excipients.

Magnesium deficiency is a common concern in today's society since stress depletes magnesium, and many people do not consume the recommended daily amount of magnesium from food. Due to the numerous health benefits of adequate magnesium intake, supplementation may be indicated for individuals dealing with high levels of stress and stress-related health concerns.*

Supplementation with Magnesium³:

- Supports healthy cardiovascular function*
- Inhibits platelet aggregation & dilates blood vessels*
- Provides nutritional support for muscles & bones*
- Reduces muscle spasm & soreness*
- Supports healthy bone density*
- Supports normal vitamin D synthesis & activity*
- Supports normal energy metabolism*
- Supports cognitive function*
- Enhances positive mood*
- Improves adaptability to stress*
- Improves insulin sensitivity*















*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.

For educational purposes only. Consult your physician for any health concerns.

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How does Magnesium³ work?

Magnesium³ is formulated with highly bioavailable magnesium salts for cardiovascular, musculoskeletal, endocrine, neurological, and metabolic support.*

What the research shows:

Magnesium plays many crucial roles in human physiology. It is involved in hundreds of enzymatic processes in the body that in turn influence the function of numerous body systems and metabolic pathways.

Magnesium supports cardiovascular function. It acts as a natural calcium channel blocker and a cofactor for maintaining cell membrane potential, which is crucial for establishing a steady, regular heartbeat. 6.7 Magnesium also appears to decrease the vascular and endothelial inflammation involved in atherosclerosis and hypertension. 8.9 Low magnesium levels appear to induce an inflammatory state in general which can have detrimental effects on the body. 10

Magnesium influences electrolyte levels inside cells by moderating cell membrane transport and cell-substrate adherence. Acting as a counterbalance to calcium, magnesium encourages muscle relaxation by increasing reuptake of calcium after muscle contraction.^{11,12}

Magnesium is a structural nutrient that maintains the health of bones and teeth. Around 60% of magnesium is stored in bone with most of the remainder in the skeletal muscle and soft tissues. Depleted magnesium levels and the resulting chronic inflammation are known to increase bone loss, whereas magnesium supplementation has been shown to reduce bone loss.¹³

Studies show that stress and magnesium are linked: increased stress causes urinary loss of magnesium¹⁴, and elevated catecholamine concentrations have been shown to lower serum magnesium levels.¹⁵ In addition, low magnesium levels can worsen the overall cumulative negative effects of the stress response.¹⁶ Magnesium supplementation has been shown to lower cortisol levels while improving swimming and running times in competitive triathletes.¹⁷ In situations of chronic stress, increased intake of magnesium may be required to maintain adequate magnesium stores.

Magnesium is also necessary for normal neurological function and neurotransmitter release, ¹⁸ and the links between magnesium status and mental health are documented by research. Magnesium deficient diets in animals are known to correlate with depressive and anxiogenic behaviors. ¹⁹ Low magnesium status also appears to have a correlation with depression in humans, although more research is needed to fully confirm the link. ²⁰ Increased magnesium intake also has been shown to decrease neuronal overexcitation and improve reasoning coherence. ²¹

Blood sugar and insulin problems are also correlated with low magnesium. Research shows that diabetic patients are commonly deficient in magnesium,²² and low magnesium levels are correlated with insulin resistance as well.^{23,24} Diabetes is more common in people

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with low magnesium intake, and complications of diabetes are more prevalent in diabetics with low magnesium levels.²⁴ Magnesium supplementation may help to stabilize blood sugar, restore insulin sensitivity, and normalize insulin-induced changes in cortisol output.^{25,26}

Supplement Facts

Serving Size: 1 Vegetarian Capsule Servings Per Container: 90

Amount Per Serving % DV

Magnesium

106 mg

25%

(From Trimagnesium Dicitrate Magnesium Bisglycinate and Magnesium Ascorbate)

Other ingredients: Cellulose (from capsule), Organic Rice Flour, Nu-Mag and Nu-Flow.

Allergen Information: Not manufactured with yeast, wheat, gluten, soy, milk, egg, fish, shellfish or tree nut ingredients. Produced in a GMP facility that processes other ingredients containing these allergens.

Suggested Use: Take 1 capsule three times a day or as directed by your physician.

Caution: If pregnant or nursing, or taking any medication, consult your physician before using this or any other products.

Keep out of reach of children.

Store in a cool, dry place.

Manufactured in the USA in a GMP compliant facility.

References:

- ¹ Ranade VV, Somberg JC. Am J Ther. 2001;8(5):345-57.
- ² Schuette SA, et al. *JPEN J Parenter Enteral Nutr.* 1994;18(5):430-5.
- ³ Lindberg JS, et al. J Am Coll Nutr. 1990;9(1):48-55.
- ⁴ Walker AF, et al. Magnes Res. 2003;16(3):183-91.
- ⁵ Wilimzig C, et al. Eur J Clin Pharmacol. 1996;49(4):317-23.
- ⁶ Romani AM. *Met Ions Life Sci.* 2013;13:49-79. doi: 10.1007/978-94-007-7500-8_3.
- ⁷ Ross AC, et al., eds. *Modern Nutrition in Health and Disease*. 11th ed. Baltimore, Mass: Lippincott Williams & Wilkins; 2012:159-75.
- ⁸ Rayssiguier Y, et al. *Magnes Res.* 2010;23(2):73-80.
- ⁹ Altura BM, et al. *Int J Clin Exp Med*. 2013;6(10):861-79.
- ¹⁰ Mazur A, et al. *Arch Biochem Biophys*. 2007;458(1):48-56.
- ¹¹ Swaminathan R. *Clin Biochem Rev.* 2003;24(2):47-66.
- ¹² Supakatisant C, Phupong V. *Matern Child Nutr*. 2015;11(2):139-45. doi: 10.1111/j.1740-8709.2012.00440.x.
- ¹³ Aydin H, et al. *Biol Trace Elem Res.* 2010;133(2):136-43.
- ¹⁴ Mocci F, et al. *Occup Med* (Lond). 2001;51(1):56-61.
- 15 Whyte KF, et al. Clin Sci. 1987;72(1):135-8.
- ¹⁶ Seelig MS. *J Am Coll Nutr*. 1994;13(5):429-46.
- ¹⁷ Golf SW, et al. Cardiovasc Drugs Ther. 1998;12 Suppl 2:197-202.
- $^{\rm 18}$ Jahnen-Dechent W, Ketteler M. Clin Kidney J. 2012;5(Suppl 1):i3-i14.
- ¹⁹ Singewald N, et al. *Neuropharmacology*. 2004;47(8):1189-97.
- ²⁰ Cheungpasitporn W, et al. *Intern Med J.* 2015;45(4):436-40.
- ²¹ Long S, Romani AM. Austin J Nutr Food Sci. 2014;2(10).
- ²² Gröber U, et al. *Nutrients*. 2015;7(9):8199-226.
- ²³ Rosanoff A, et al. *Nutr Rev.* 2012;70(3):153-64.
- ²⁴ Dasgupta A, et al. *Indian J Endocrinol Metab*. 2012;16(6):1000-3.
- ²⁵ Heer M, Egert S. *Diabetes Metab Res Rev.* 2015;31(1):14-35.
- ²⁶ Rotter I, et al. *Magnes Res.* 2015;28(3):99-107. doi: 10.1684/mrh.2015.0391.

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