



MAGCITRATE POWDER

SUPPORTS GI REGULARITY AND SLEEP
240 G POWDER | NPN80110441 | MGL240-CN

MagCitrato Powder provides 300 mg of magnesium per 1-scoop serving in a convenient lemon-flavoured powdered delivery. It mixes easily in water and offers titration flexibility when lower or higher doses are needed. Magnesium citrate helps promote colonic motility and bowel relaxation and regularity. It also supports restful sleep due to its relaxing properties. MagCitrato Powder may support individuals with occasional constipation when fiber alone is insufficient in moving bowels or those with difficulty sleeping.

According to epidemiological studies, magnesium intake in the U.S. has decreased significantly from 500 mg per day to 175 mg to 225 mg per day, and individuals following a Western-style diet consume less than 30% to 50% of the RDA for magnesium, which is 320 mg to 420 mg per day for adults.¹ Magnesium insufficiency is common in the U.S. due to the wide use of demineralized water and soil and the increased consumption of processed food.¹ Magnesium is also depleted by stress, excessive alcohol consumption, gastrointestinal diseases, diabetes, and certain medications.^{1,2} Dietary magnesium is inversely associated with the incidence of diabetes, hypertension, heart disease, and metabolic syndrome.³

HIGHLIGHTS

- 300 mg of magnesium (as magnesium citrate) per scoop
- Pleasant lemon-flavoured powder
- No fructose, sucrose, or artificial sweeteners; sweetened with organic stevia leaf extract
- Convenient powdered delivery for titration flexibility
- Gluten-free, dairy-free, soy-free
- Non-GMO

Magnesium is an essential mineral that serves as an enzyme cofactor for more than 300 biochemical reactions in the body, including those of glycolysis, the first step in harnessing energy from carbohydrates. Magnesium follows potassium as the second most abundant intracellular cation (positively charged electrolyte) in the body. The adult human body contains approximately 25 grams of magnesium, with more than 60% being found in the skeleton. Muscle tissue contains approximately 27% of total body magnesium, with the bulk of the balance found in other intracellular areas, and less than 1% occurring in the blood.⁴

Magnesium is a structural component of the hydroxyapatite mineral matrix of bone, a natural calcium channel blocker, muscle relaxant, facilitator of calming effects upon the nervous system, and a required element for electrolyte balance and proper functioning of sodium-potassium pumps. Magnesium plays a crucial role in supporting physical strength and mobility, muscle relaxation, neurological health, cardiac function, and psychological balance. The role of magnesium as an enzyme cofactor for processes that generate adenosine triphosphate (ATP) underlie its importance for maintaining energy levels and metabolic efficiency.

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Superior Bioavailability

A small randomized, double-blind, placebo controlled parallel study compared the relative bioavailability of three forms of magnesium at a daily dose of 300 mg for 60 days in healthy subjects. Urine, blood, and saliva samples were assessed at baseline and after 2 hours and 60 days of either magnesium amino acid chelate, citrate, or oxide supplementation. As assessed by 24-hour urinary excretion, supplementation of the organic citrate and amino acid chelate forms showed greater absorption than magnesium oxide. After acute and chronic supplementation, magnesium citrate led to the greatest serum magnesium concentration compared with the other two forms, suggesting magnesium citrate is preferable due to its superior bioavailability.^{5,6}

Bowel Regularity and Motility

As an osmotic agent, MagCitrade Powder may be helpful in cases of occasional constipation on a short-term basis. Magnesium citrate can be used to help promote bowel relaxation when fiber alone is insufficient by increasing fluid in the intestines to make stools softer and easier to pass. Magnesium citrate is commonly used as a laxative and prior to some surgical or bowel procedures (e.g., colonoscopy) as it has been shown to be effective in cleansing out the colon.^{7,8} Excess magnesium can result in bowel intolerance, such as diarrhea.⁹

Sleep

Magnesium is a natural N-methyl-D-aspartic acid (NMDA) antagonist and gammaaminobutyric acid (GABA) agonist; these have a relaxant effect and facilitate sleep.⁹ Low magnesium intake can be associated with poor quality sleep. Supplementing with magnesium before bedtime may support a more restful night sleep with less waking during the night. In a study of elderly patients with insomnia, 500 mg of daily magnesium supplementation for 8 weeks led to improved subjective and objective insomnia measures. Compared to the placebo group, the magnesium group had significant increases in sleep time, sleep efficiency, serum renin, and melatonin concentrations; and significant reductions in sleep onset latency and cortisol concentrations.^{9,10} There was also a reduction in early morning awakening compared to the placebo.¹⁰ A systematic review and meta-analysis of three randomized controlled trials with 151 older adults showed statistically insignificant improvements in total sleep time and sleep onset latency compared to a placebo.¹¹

In a small placebo-controlled, randomized crossover study, researchers examined the effect that Mg(2+) supplementation (as an effervescent tablet) had on the sleep of 12 elderly subjects by using electroencephalogram (EEG) and nocturnal hormone secretion. Two treatment intervals of 20 days each were separated by a 2-week washout period; magnesium was administered in a creeping dose of 10 mmol (24.3 mg) and 20 mmol (48.6 mg) for 3 days each, followed by 30 mmol (73 mg) for 14 days. The results showed a significant increase in slow-wave sleep, delta power, and sigma power; renin and aldosterone significantly increased during the total night and second half of the night, respectively; and cortisol decreased significantly. The researchers suggested that oral magnesium supplementation may partially reverse age-related nocturnal neuroendocrine and sleep EEG changes in humans due to its effect on the hypothalamic-pituitary-adrenal axis and the renin-angiotensin-aldosterone system.¹²

BENEFITS

- Supports colonic motility
- Promotes bowel regularity
- Supports relaxation and restful sleep
- Promotes body magnesium status

Medicinal Ingredients (per one scoop/4 g):

Magnesium (Magnesium citrate)..... 300 mg

Non-Medicinal Ingredients: Stevia leaf extract, maltodextrin, silicon dioxide, lemon flavour. **Recommended Dose:** Adults and adolescents 9 years and over: Mix 4 grams (approx. 1 scoop) of powder with a glass of water or liquid once per day, or as directed by your health care practitioner.

REFERENCES

For a list of references cited in this document, please visit: <https://www.designsforhealth.com/api/library-assets/literature-reference---magcitrade-powder-tech-sheet-references>

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FOUNDATIONAL HEALTH



MagCitr^{ate} Powder provides 300 mg of magnesium per 1-scoop serving as a convenient lemon-flavoured powder. It mixes easily in water and offers serving size flexibility when either more or less is needed. Magnesium citrate helps promote movement through the gastrointestinal (GI) tract, bowel relaxation, and regularity. It also supports restful sleep due to its relaxing properties. MagCitr^{ate} Powder may support individuals with occasional constipation when fiber alone is insufficient in moving bowels, and it may support sleep quality for those with difficulty sleeping.

Magnesium plays many important roles in the body, particularly in the brain, skeletal muscles, and heart. Magnesium is an essential mineral that supports more than 300 biochemical reactions in the body, including those that regulate cellular energy production, and muscle and nerve function. Magnesium is critical for

supporting normal muscle relaxation, neurological health, and bone health. Magnesium's role in supporting cellular energy production underlies its importance for sustaining overall physical energy and efficient, healthy metabolism.

Studies show magnesium intake in the U.S. has decreased significantly in the last several decades. Magnesium insufficiency is common in the U.S. due to the wide use of demineralized water and soil and the increased consumption of processed food. Individuals following a Western-style diet consume less than the recommended dietary allowance (RDA) for magnesium (320 mg to 420 mg per day for adults). Magnesium can also be depleted by stress, excessive alcohol consumption, gastrointestinal diseases, and certain medications.

Benefits

- Supports bowel movement and activity
- Promotes bowel regularity
- Supports relaxation and restful sleep

Recommended Dose

Adults and adolescents 9 years and over: Mix 4 grams (approx. 1 scoop) of powder with a glass of water or liquid once per day, or as directed by your health care practitioner.

Highlights

- 300 mg of magnesium (as magnesium citrate) per scoop
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Consult with your health-care practitioner about your specific circumstances and any questions you may have about this product.
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