



PRODUCT FACT SHEET

# CLINICAL MAGNESIUM

Clinical Magnesium includes three organic sources of magnesium for optimal digestion: amino acid chelate (64%), citrate (26%) and malate (10%). Magnesium is chronically deficient in Americans, and is critical for nerve, muscle, and cardiovascular health.



## INDICATIONS

Clinical Magnesium is formulated to support the following:

- Muscle and nerve health; for those people exhibiting spasms, those routinely developing cramps after exercise and individuals following extreme diets
- Bone and cardiovascular health; to delay and inhibit the onset of bone mass density (BMD) loss and the loss of endothelial cell function of the cardiovascular system
- As an adjunct to multivitamin, calcium and vitamin D3 supplements - significant magnesium is often lacking in the diets of even those people routinely taking supplements

## KEY FEATURES

- Contains 400 milligrams, 100% recommended daily intake, of magnesium per serving (3 capsules per serving)
- Contains a combination of magnesium as the amino acid (64%), malate (26%) and citrate chelates (10%) for maximum, easy digestibility
- Provides 30 mg of malic acid – an organic di-acid required for proper function of the citric acid cycle (Krebs cycle) and a digestive aid
- Contains no sugar, starch, artificial colors, flavors, preservatives, corn, soy, yeast, wheat, grain, egg or milk products

CLINICAL MAGNESIUM

ITEM #: 0610

## DESCRIPTION

A high-potency, chelated magnesium supplement, delivering easily digested magnesium - formulated to support muscle, nerve, cardiovascular and bone health.

## HOW SUPPLIED

2-piece, vegetable capsule; 90 per bottle

## DIRECTIONS

Take three or more capsules daily, any time of day with water or juice, or as directed by a health professional. High doses of magnesium may cause loose stools in some individuals (sometimes a desirable condition).

## Supplement Facts

Amount Per Serving	% Daily Value
Magnesium (from amino acid chelate, citrate and malate)	400 mg 100%
Malic acid	222 mg *

\* Daily Value not established.



# ANABOLIC LABORATORIES

Pharmaceutical Made Nutritional Products Since 1924



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# CLINICAL MAGNESIUM

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BACKGROUND

Magnesium (Mg) is an essential mineral required in large daily amounts to maintain health. Reports suggest that from 20 to 72% of adults in America do not receive the recommended daily intake (RDI) for Mg. It is often thought that Mg needs can be easily met through taking a daily multivitamin, but multivitamins typically only deliver from 10-20% of the magnesium RDI. This fact is partly because Mg is a bulky metal and partly because of production difficulties. Inadequate dietary Mg can lead to a variety of undesirable health consequences, due to the diverse roles Mg plays in the physiology of human tissues. Deficiency is serious and this condition complicates several serious pathologies<sup>1</sup>.

Over 50% of total body Mg is stored in the bones of humans with the other 50% in soft tissues, while < 1% is in blood. Mg homeostasis is controlled primarily by the release of this metal from the kidneys when the plasma levels of Mg and potassium are adequate. Unfortunately, Mg release by the kidneys is often stimulated by high bloodstream sodium. The typically low blood content is the primary reason why Mg levels cannot be easily monitored using common clinical lab test methodology. Because of this, healthy levels for plasma Mg are not currently well-defined, so diagnoses of Mg insufficiency is usually done from more indirect evidence than for other metals, for instance iron.

Two of the more commonly encountered indications of Mg deficiency are post-exertion cramping and repeated muscular spasms. Magnesium is a common neurotransmitter and is also required for the biosynthesis and then hydrolysis of ATP

during muscle contraction and relaxation. Those suffering Mg deficiency inevitably lose the ability to relax muscles and nerves which is manifest as cramps and spasms. Such conditions can often be reversed and prevented with dietary Mg. Low BMD is another indication of possible dietary insufficiency and those with osteoporosis are often found to be deficient in all three important bone nutrients – Ca+2, Mg+2 and vitamin D3. Sadly, many people are found to have serious BMD loss even with adequate calcium and D3, but lacking Mg. It is also required for proper health of endothelial cells lining human arteries; chronic insufficiency may irreversibly damage this tissue-surface leading to CVD. Dietary Mg has been shown to help some patients recover after heart failure and the recovery can now be monitored by the levels of C-reactive protein, an established marker for inflammation<sup>3</sup>. Magnesium also acts to dampen the clotting abilities of thrombocytes - another manner by which Mg promotes healthy vasculature.

Good sources of magnesium are wheat bran, wheat germ, nuts, legumes, soybeans, Brassica oleracea vegetables and seafood. Poor sources are fast foods, including French fries, and most common breads which are also high in sodium and bromides. In addition, many breads contain considerable phytic acid, which is known to sequester Mg – lowering the bioavailability<sup>4</sup>. Chelates, such as those in our Mega Magnesium Capsule deliver more magnesium to the bloodstream than oxides<sup>5</sup>. Unfortunately, magnesium chelates are bulky so the patient should take several capsules daily to increase body magnesium.

## REFERENCES

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## THE ANABOLIC DIFFERENCE

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As a pharmaceutical manufacturer, the standards used for raw materials, production and finished product testing exceed FDA requirements for the nutritional products industry. Our pharmaceutical requirements for manufacturing are the foundation for the guaranteed quality of our nutritional products. Anabolic Laboratories sets the nutritional supplement industry standard for label accuracy, potency and purity as dictated by the FDA for pharmaceutical and nutritional products.



These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure or prevent any disease.

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