

Magnesium Products



Magnesium Citrate 90 capsules #70240
Solution of Magnesium 8 fl. oz. #70320
Magnesium Malate Forte 120 tablets #70740

Also see: Balanced Electrolyte Concentrate, Buffered Vitamin C, Calcium Magnesium Citrate, and Magnesium Ascorbate

Discussion

Besides its use in many of our formulations, magnesium is the primary element in three formulas. **Magnesium Citrate** is a capsule form of magnesium that is well tolerated and highly bioavailable.* **Solution of Magnesium**, magnesium chloride in liquid form, is a highly absorbable form of magnesium, formulated for gastrointestinal ease.* **Magnesium Malate Forte** combines malic acid, magnesium and vitamin B2 (riboflavin), nutrients involved in the Krebs cycle and important for energy generation.* Magnesium malate (the salt of magnesium and malic acid) is highly absorbed.* All three products are tested to ensure the absence of heavy metals and other contaminants.

Magnesium (Mg) is one of seven macrominerals considered essential for human health; the others are sodium, potassium, calcium, phosphorus, chlorine and sulfur. Magnesium contributes significantly to bone formation and mineralization, helping to strengthen the bones and the teeth.* It plays a role in the regulation of muscle and nerve activity through influencing cell membrane permeability, and functions as an electrolyte, helping maintain the charge balance in the body fluids.* The adult human body contains 20-28 grams of magnesium. Of this total amount, about 40% is found in the muscle and soft tissues, about 1% in the extracellular fluid, and the remainder in the skeleton. Surveys over recent years suggest that as much as 40% of the U.S. population may be deficient in magnesium.

In solution, magnesium ions have two positive charges (Mg⁺⁺), and magnesium as an electrolyte is critical in the electrical activity of nerve, muscle, and other tissues.* More than 300 enzymes are known to be activated by magnesium, and as a consequence numerous biochemical pathways require magnesium. Calcium is also required for a variety of pathways and processes, and these two macrominerals are normally maintained in a "yin-yang" balance, in which either can synergize or antagonize the action of the other. Magnesium is also important for the homeostatic regulation of the two other major electrolytes in the body, potassium and sodium.

Magnesium plays a role in the cardiovascular and GI systems, peripheral vascular function, energy production, and the heart, brain, kidney and liver.* For instance, magnesium is involved in the body's homeostatic maintenance of blood pressure and heart rhythm.* Frank magnesium deficiency can result in nausea, loss of muscle tonicity and strength, electromyographic abnormalities, irritability and mental derangement.*

Athletes and laborers can become low in magnesium, because perspiring and the use of large muscles tend to deplete it. Lactating women require higher magnesium intake, as do adolescents. In a healthy person, half of the ingested magnesium is typically absorbed. But many lifestyle, environmental, and dietary factors can lower the availability of magnesium, including missed meals, the use of diuretics for weight loss, fast and high-fat foods, alcohol, and soft drinks, which are high in phosphates that leach magnesium from the body. Additionally, acid rain washes magnesium out of the soil, fluoridation depletes it from drinking water, and the processing of grains and other foods lowers their magnesium content. A 1988 U.S. Government study concluded that the Standard American Diet (SAD) only provided 40% of the daily requirement of magnesium.

Testing for magnesium Deficiency - Serum magnesium may not be an accurate measure of body magnesium status, since such a small percentage of the body's magnesium is found in the serum. In response, Dr. Sherry Rogers and her colleagues developed a loading test. Its rationale is as follows: if people with enough magnesium are given more, they will pass it out with the urine, whereas if they are deficient in magnesium, the loading dose will be partially retained. A baseline magnesium excretion is determined from a 24-hour urine, then a load of magnesium chloride is given, and the 24-hour urine repeated. If urine magnesium excretion is high, deficiency is unlikely; if excretion is low, deficiency is possible.

*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.

Magnesium Citrate 90 capsules #70240 (Hypoallergenic)

Serving Size: 1 capsule

Servings Per Container: 90

Amount Per Serving:

Magnesium (as Magnesium Citrate) 170 mg

Other ingredients:

Magnesium stearate, silicon dioxide.

Suggested Use: As a dietary supplement, 1 capsule one to three times daily between meals, or as directed by a healthcare practitioner. High doses of magnesium may have a laxative effect.

Contraindicated with use of aluminum containing drugs. Citric acid may increase mineral absorption, including aluminum.

Solution of Magnesium 8 fl. oz. #70320 (Hypoallergenic)

Serving Size: 1/2 teaspoon (2.5 ml)

Servings Per Container: 96

Amount Per Serving:

Magnesium (as Magnesium Chloride) 66.5 mg

Other ingredients:

Purified water, magnesium acetate, lactic acid.

Suggested Use: Dilute prior to ingestion. As a dietary supplement, 1/2 teaspoon diluted in eight ounces of your favorite beverage, two or three times daily, or as directed by a healthcare practitioner. Refrigerate after opening.

Magnesium Malate Forte 120 tablets #70740 (Hypoallergenic)

Serving Size: 1 tablet

Servings Per Container: 120

Amount Per Serving:

Riboflavin (Vitamin B2) 5 mg

Magnesium (60% as Magnesium Citrate and 40% as Magnesium Hydroxide) 62 mg

Malic acid 250 mg

Other ingredients:

Dicalcium phosphate, cellulose, stearic acid, silicon dioxide, magnesium stearate.

Suggested Use: As a dietary supplement, 1 or 2 tablets two or three times daily with meals, or as directed by a healthcare practitioner.

For added benefit, this product may be used with L-Citrulline, item #74760. The combination of L-citrulline and malate has been shown to enhance cognitive function and energy.*



Allergy Research Group®
2300 North Loop Road, Alameda, CA 94502
Phone: 800-545-9960 or 510-263-2000
Fax: 800-688-7426 or 510-263-2100
www.AllergyResearchGroup.com

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