

**Amino-Mag 200**  
**Magnesium Amino Acid Chelate**

**DESCRIPTION**

Amino-Mag 200™, provided by Douglas Laboratories®, is a magnesium amino acid chelate delivering 200 mg of elemental magnesium per tablet.

**FUNCTIONS**

Magnesium plays an essential role in a wide range of fundamental cellular reactions. More than 300 enzymes require magnesium as a cofactor. Complexed with ATP, the main carrier of metabolic energy in the body, magnesium is essential for all biosynthetic processes, glycolysis, formation of c-AMP, energy-dependent membrane transport, trans-mission of genetic code for protein synthesis, and muscle function.

Of the 20-30 grams of total body magnesium, about 40% is located in muscle and other soft tissues, and the remainder in bone. The concentration of intracellular magnesium is carefully regulated, and its alterations can have profound effects on cardiac and skeletal muscle physiology.

Healthy people require about 4.5 mg of dietary magnesium per kg body weight, or 280 mg for a 62 kg female and 350 mg for a 76 kg male. The U.S. RDA is 400 mg/day.

The efficiency of magnesium absorption is a function of dietary intake. At very low intakes (less than 40 mg) 65-70% of dietary magnesium is absorbed, whereas at high intakes (1,000 mg) less than 15% is absorbed. Most people are expected to absorb about 30-60% at common levels of dietary magnesium. Contrary to common belief, recent studies suggest that magnesium absorption is not affected by calcium or vitamin D, and vice-versa. The kidney plays a critical role in magnesium homeostasis. At average magnesium intakes, the kidneys reabsorb about 95% of the filtered magnesium. Douglas Laboratories' amino acid chelate used in Amino-Mag 200 is a well absorbed and highly tolerated form of magnesium.

**INDICATIONS**

Amino-Mag 200 may be a useful nutritional adjunct for individuals who wish to increase their dietary intake of magnesium.

**FORMULA (MAG)**

Each tablet contains:

Magnesium (amino acid chelate\*).....200 mg

\*Amino acid chelate sourced from a proprietary blend of rice protein amino acids and glycinate/lysinate.

**SUGGESTED USE**

One to two tablets daily with food or as directed by a healthcare professional.

**SIDE EFFECTS**

No adverse effects have been reported.

**STORAGE**

Store in a cool, dry place, away from direct light. Keep out of reach of children.

## **Amino-Mag 200**

### **Magnesium Amino Acid Chelate**

#### **REFERENCES**

Abbott L, Nadler J, Rude RK. Magnesium deficiency in alcoholism: Possible contribution to osteoporosis and cardiovascular disease in alcoholics. *Alcoholism (NY)* 1994;18:1076-1082.

Adaniya H, Hayami H, Hiraoka M, Sawanobori T. Effects of magnesium on polymorphic ventricular tachycardias induced by aconitine. *J Cardiovasc Pharmacol* 1994;24:721-729.

Al-Ghamdi SMG, Cameron EC, Sutton RAL. Magnesium deficiency: Pathophysiologic and clinical overview. *Am J Kidney Dis* 1994; 24:737-752.

Dahle LO, Berg G, Hammar M, Hurtig M, Larsson L. The effect of oral magnesium substitution on pregnancy-induced leg cramps. *Am J Obstet Gynecol* 1995;173:175-180.

Durlach J, Durlach V, Bac P, Rayssiguier Y, Bara M, Guiet-Bara A. Magnesium and ageing. II. Clinical data: Aetiological mechanisms and pathophysiological consequences of magnesium deficit in the elderly. *Magnes Res* 1993;6:379-394.

Elin RJ. Magnesium: The fifth but forgotten electrolyte. *Am J Clin Pathol* 1994;102:616-622.

Kisters K, Spieker C, Tepel M, Zidek W. New data about the effects of oral physiological magnesium supplementation on several cardiovascular risk factors (lipids and blood pressure). *Magnes Res* 1993;6:355-360.

Lasserre B, Spoerri M, Moullet V, Theubet M-P. Should magnesium therapy be considered for the treatment of coronary heart disease? II. Epidemiological evidence in outpatients with and without coronary heart disease. *Magnes Res* 1994;7:145-153.

Orlov MV, Brodsky MA, Douban S. A review of magnesium, acute myocardial infarction and arrhythmia. *J Am Coll Nutr* 1994;13:127-132.

Rayssiguier Y, Durlach J, Gueux E, Rock E, Mazur A. Magnesium and ageing. I. Experimental data: Importance of oxidative damage. *Magnes Res* 1993;6:369-378.

Rock E, Astier C, Lab C, et al. Dietary magnesium deficiency in rats enhances free radical production in skeletal muscle. *J Nutr* 1995;125:1205-1210.

Schuette SA, Lashner BA, Janghorbani M. Bioavailability of magnesium diglycinate vs magnesium oxide in patients with ileal resection. *J Parenter Enter Nutr* 1994;18:430-435.

Seelig MS. Consequences of magnesium deficiency on the enhancement of stress reactions; Preventive and therapeutic implications. *J Am Coll Nutr* 1994;13:429-446.

Sojka JE, Weaver CM. Magnesium supplementation and osteoporosis. *Nutr Rev* 1995;53:71-74.

Spencer H, Fuller H, Norris C, Williams D. Effect of magnesium on the intestinal absorption of calcium in man. *J Am Coll Nutr* 1994;13:485-492.

## **Amino-Mag 200**

### **Magnesium Amino Acid Chelate**

Thomas J, Tomb E, Thomas E, Faure G. Migraine treatment by oral magnesium intake and correction of the irritation of buccofacial and cervical muscles as a side effect of mandibular imbalance. *Magnes Res* 1994;7:123-127.

Wirell MP, Wester PO, Stegmayr BG. Nutritional dose of magnesium in hypertensive patients on beta blockers lowers systolic blood pressure: A double-blind, cross-over study. *J Intern Med* 1994;236:189-195.

Witteman JCM, Grobbee DE, Derkx FHM, Bouillon R, De Bruijn AM, Hofman A. Reduction of blood pressure with oral magnesium supplementation in women with mild to moderate hypertension. *Am J Clin Nutr* 1994;60:129-135.

**For more information on Amino-Mag 200 visit [douglaslabs.com](http://douglaslabs.com)**

**† 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.**

Manufactured by  
Douglas Laboratories  
600 Boyce Road  
Pittsburgh, PA 15205  
800-245-4440  
[douglaslabs.com](http://douglaslabs.com)



**You trust Douglas Laboratories.  
Your patients trust you.**

© 2012 Douglas Laboratories. All Rights Reserved