

## Mag 2: Cal 1

### DESCRIPTION

Mag 2: Cal 1 tablets, as provided by Douglas Laboratories®, delivers magnesium and calcium in a 2:1 ratio, along with other nutrients to support healthy bone metabolism.

### FUNCTIONS

The adult human body contains approximately 20-30 g of magnesium with about 60% located in bone and 1,200 g of calcium, about 99% of which is present in the skeleton. Bone is constantly turning over, a continuous process of formation and resorption. In children and adolescents, the rate of formation of bone mineral predominates over the rate of resorption. In later life, resorption predominates over formation. Therefore, in normal aging, there is a gradual loss of bone. Osteoporosis, a condition of reduced bone mineral density that can increase risk of fractures, affects a large proportion of the elderly in developed countries. Caucasian and Asian women typically have low peak bone densities, and therefore, are at the greatest risk of developing osteoporosis. It is generally accepted that obtaining enough dietary calcium throughout life can significantly decrease the risk of developing osteoporosis. Among other factors, such as regular exercise, gender and race, calcium supplementation during childhood and adolescence appears to be a prerequisite for maintaining adequate bone density later in life. But even elderly osteoporotic patients can benefit significantly from dietary supplementation with those minerals important for bone function and structure, calcium and magnesium. Magnesium is a mineral with a fundamentally important physiological function in the body. However, typical diets in the U.S. and other industrialized countries often provide less than adequate amounts of magnesium. Magnesium plays an essential role in a wide range of fundamental cellular reactions. More than 300 enzymes require magnesium as a cofactor. Complexed with adenosine triphosphate (ATP), the main carrier of metabolic energy in the body, magnesium is essential for all biosynthetic processes: glycolysis, formation of cyclic adenosine monophosphate (cAMP), energy-dependent membrane transport, transmission of genetic code for protein synthesis, and muscle function. Magnesium is also involved in maintaining already normal heart function and blood pressure.

### INDICATIONS

Mag 2: Cal 1 may be a useful dietary supplement for those who wish to increase their intake of magnesium and calcium for maintaining the function and structure of their bones as well as many other biosynthetic processes.

### FORMULA (#7466)

One Tablet Contains:

Magnesium .....	250 mg
(from Aspartate/ascorbate/oxide complex)	
Calcium .....	125 mg
(from Citrate/ascorbate/carbonate complex)	
Vitamin D3 .....	13 IU
Boron (aspartate/citrate complex) .....	2 mg
Vitamin C .....	75 mg
Glutamic Acid .....	20 mg

### SUGGESTED USE

Adults take 1 tablet twice daily with food or as directed by a healthcare professional.

## Mag 2: Cal 1

### SIDE EFFECTS

No adverse side effects have been reported.

### STORAGE

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

### REFERENCES

- Bendich A, Leader S, Muhuri P. Supplemental calcium for the prevention of hip fracture: potential health-economic benefits. *Clin Ther* 1999;21:1058-72.
- Celotti F, Bignamini A. Dietary calcium and mineral/vitamin supplementation: a controversial problem. *J Int Med Res* 1999;27:1-14.
- Creedon A, Flynn A, Cashman K. The effect of moderately and severely restricted dietary magnesium intakes on bone composition and bone metabolism in the rat. *Br J Nutr* 1999;82:63-71.
- Gyاملani G, Parikh C, Kulkarni AG. Benefits of magnesium in acute myocardial infarction: timing is crucial. *Am Heart J* 2000;139:703.
- Ng SY. Hair calcium and magnesium levels in patients with fibromyalgia: a case center study. *J Manipulative Physiol Ther* 1999;22:586-93.
- Reid IR. The roles of calcium and vitamin D in the prevention of osteoporosis. *Endocrinol Metab Clin North Am* 1998;27:389-98.
- Saris NE, Mervaala E, Karppanen H, et al. Magnesium. An update on physiological, clinical and analytical aspects. *Clin Chim Acta* 2000;294:1-26.
- Sojka JE, Weaver CM. Magnesium supplementation and osteoporosis. *Nutr Rev* 1995;53:71-4.
- Toba Y, Kajita Y, Masuyama R, et al. Dietary magnesium supplementation affects bone metabolism and dynamic strength of bone in ovariectomized rats. *J Nutr* 2000;130:216-20.
- Yang CY, Chiu HF, Tsai SS, et al. Calcium and magnesium in drinking water and risk of death from prostate cancer. *J Toxicol Environ Health* 2000;60:17-26.

**For more information on Mag 2: Cal 1 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.**