

Calcigard® Two-to-One Plus Vitamin D

DESCRIPTION

Calcigard™ Two-to-One provides calcium and magnesium in a 2:1 ratio from bioavailable calcium citrate and magnesium amino acid chelate.

FUNCTIONS

The adult human body contains approximately 1,200 g of calcium, of which about 99% is present in the skeleton, and 20-30 g of magnesium with about 60% located in bone. The remaining 1% of total body calcium and 40% of total body magnesium are found in the soft tissues and play important roles in such vital functions as nerve conduction, muscle contraction, energy metabolism, blood clotting, membrane permeability, and hormonal signaling. Blood calcium levels are carefully maintained within very narrow limits by the interplay of several hormones (1,25-dihydroxy-cholecalciferol, parathyroid hormone, calcitonin, estrogen, and testosterone) which control calcium absorption and excretion, as well as bone metabolism. The intracellular levels of magnesium are also very tightly regulated, since their alterations can have profound effects on cardiac and skeletal muscle physiology.

Intestinal calcium absorption ranges from 15 to 75% of ingested calcium. Adequate vitamin D status is necessary for normal calcium absorption. Magnesium absorption is independent of vitamin D status and ranges from 30 to 60% of ingested magnesium.

Bone is constantly turning over, through 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 afflicts a large proportion of the elderly in developed countries. Caucasian and Asian women typically have low peak bone densities, and are therefore 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 supplementation with dietary calcium and magnesium.

Calcigard Two-to-One provides highly beneficial sources of both calcium and magnesium. They are well absorbed and well tolerated.

Vitamin D is a key regulatory hormone for calcium and bone metabolism. Adequate vitamin D intake is important for ensuring normal calcium absorption and maintaining proper calcium plasma levels. People living in southern regions of the U.S. can derive significant amounts of vitamin D from sunlight dependent synthesis in the skin during the summer, whereas people in the northern states have to rely more on foods and supplements for adequate vitamin D status.

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INDICATIONS

Calcigard Two-to-One may be useful dietary supplements for those who wish to increase their intake of calcium and magnesium for maintaining good bone health.

FORMULA (CA6)

1 Tablet Contains:

Vitamin D3 30 IU
(from cholecalciferol)
Calcium (as calcium citrate)..... 150 mg
Magnesium 75 mg
(as magnesium amino acid chelate)

SUGGESTED USE

Adults take 1 tablet daily with meals or as directed by physician.

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

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.

Andon MB, Lloyd T, Matkovic V. Supplementation trials with calcium citrate malate: Evidence in favor of increasing the calcium RDA during childhood and adolescence. *J Nutr* 1994;124 Suppl.1412S-1417S.

Barger-Lux MJ, Heaney RP. The role of calcium intake in preventing bone fragility, hypertension, and certain cancers. *J Nutr* 1994;124 Suppl.1406S-1411S.

Belizan JM, Villar J, Bergel E, Pino Ad, Di Fulvio S, Galliano SV, and Kattan C. Long term effect of calcium supplementation during pregnancy on the blood pressure of offspring: follow up of a randomised controlled trial. *BMJ* 1997;315(7013):281-5.

Bronner F. Calcium and osteoporosis. *Am J Clin Nutr* 1994;60:831-836.

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

Fleming KH, Heimbach JT. Consumption of calcium in the U.S.: Food sources and intake levels. *J Nutr* 1994;124 Suppl.1426S-1430S.

Horowitz M, Wishart JM, Goh D, Morris HA, Need AG, Nordin BEC. Oral calcium suppresses biochemical markers of bone resorption in normal men. *Am J Clin Nutr* 1994;60:965-968.

Levine BS, Rodman JS, Wienerman S, Bockman RS, Lane JM, Chapman DS. Effect of calcium citrate

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supplementation on urinary calcium oxalate saturation in female stone formers: Implications for prevention of osteoporosis. *Am J Clin Nutr* 1994;60:592-596.

Miller GD, Weaver CM. Required versus optimal intakes: A look at calcium. *J Nutr* 1994;124 Suppl.1404S-1405S. Reid IR, Ames RW, Evans MC, Gamble GD, Sharpe SJ. Long-term effects of calcium supplementation on bone loss and fractures in postmenopausal women: A randomized controlled trial. *Am J Med* 1995;98:331-335. Sojka JE, Weaver CM. Magnesium supplementation and osteoporosis. *Nutr Rev* 1995;53:71-74.

Strause L, Saltman P, Smith KT, Bracker M, Andon MB. Spinal bone loss in postmenopausal women supplemented with calcium and trace minerals. *J Nutr* 1994;124:1060-1064.

Teegarden D, Weaver CM. Calcium supplementation increases bone density in adolescent girls. *Nutr Rev* 1994;52:171-173.

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† 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.

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