

GLUTEN-FREE • VEGETARIAN • NON-GMO

VEGETARIAN
CALCIUM
MAGNESIUM
 TRACE MINERAL COMPLEX

Available in TABLETS or VEGETARIAN CAPSULES

PIONEER Vegetarian Calcium/Magnesium offers superior mineral absorption, broad spectrum bone nutrients and easily utilized ionic trace minerals in a 100% vegetarian formula.

Bone is a dynamic, living tissue whose health relies on much more than just calcium. Additional minerals and trace minerals, as well as hormones, proteins, vitamins and other nutrients also play important roles. All of these substances influence the health of our bones as they participate in complex, biochemical interrelationships between organs, glands and tissues.

Bone constituents are constantly being recycled for use throughout the body while new bone is being made. In fact, *each bone cell in our body is replaced once every three months.* The formation of healthy bone requires the presence of at least eighteen different essential nutrients,^{1,2} and likely many more.

PIONEER *Vegetarian Calcium/Magnesium Trace Mineral Complex* goes far beyond the ordinary, providing extremely well-utilized, clinically researched ingredients. Combine it with a high quality multivitamin/mineral supplement, such as PIONEER *1+ Vitamin/Mineral*, plus regular exercise and a natural whole foods diet, to provide a solid foundation for good, stable bone health.

CONSIDER THESE ADVANTAGES:

1. Highly Bioavailable Calcium. Calcium *citrate malate* is a fully-reacted calcium chelate that exhibits higher solubility than even calcium citrate. Of the few forms of calcium that have been shown to increase bone density, it is among the most well-researched. Various studies indicate that calcium citrate malate prevents bone loss from the spine, and increases density of the femoral head.^{2,3,4,5} The other Krebs Cycle intermediates also provide high calcium absorbability.

2. Multiple Source Magnesium. Magnesium plays a role in regulating calcium transport and utilization, and has been shown to increase bone density in older people who are magnesium deficient.^{6,7,8} This formula's magnesium comes from fully-reacted chelates of *malate* and *rice protein amino*

acids, oxide and *ionic magnesium* from sea water. High quality, multiple sources of magnesium increase the body's potential for absorption and utilization by offering several pathways of uptake. (Mag. sources/ratios in tablets and capsules differ; see label.)

3. Boron. This important micronutrient is considered a requisite for the efficient metabolism and utilization of calcium, magnesium, vitamin D and phosphorus.⁹

4. Silica. In bone, collagen is the connective tissue matrix upon which minerals gather. Silica is believed to influence the rate of collagen formation, and has been shown to improve bone mineral density of the hip.¹⁰

5. Low Sodium Trace Mineral Complex. Research suggests that the presence of trace minerals is essential to good bone health, as well as overall well-being.^{1,2} PIONEER's broad array of trace minerals and micronutrients are derived from pure, concentrated inland sea water from the Great Salt Lake. These minerals are directly utilizable in the body due to their ionic (charged) form. And unlike some mined and colloidal minerals, our Trace Mineral Complex is extremely low in aluminum, lead and other heavy metals.

6. True Full-Disclosure Labeling. All ingredients, their forms, and ratios are disclosed on the label of every PIONEER product. Read the label!

Serving size 1 tablet or 2 capsules Bottles of 60 or 120 tablets; 90 or 180 capsules	AMOUNT PER DAY		AMOUNT PER 1 TABLET/ 1.5 CAPS	
	4 TABLETS/6 CAPS	%DV		%DV
Vitamin D2 (ergocalciferol)	250 IU . . .	63 %	62.5 IU . . .	16 %
Calcium (TABLETS: 3:1:1 citrate malate: Krebs Cycle intermediates [fumarate, citrate, succinate, malate]:carbonate; CAPSULES: 1:1 citrate malate : Krebs Cycle interme- diates [as above plus a-keto-glutarate])	1000 mg . . .	100 %	250 mg . . .	25 %
Magnesium (TABLETS: 1:1:1 malate:rice protein amino acid chelate:oxide; CAPSULES: 11:1 oxide:malate)	500 mg . . .	125 %	125 mg . . .	31 %
Trace Mineral Complex (from desalted seawater)	250 mg	*	62.5 mg	*
Silicon (from Horsetail herb standardized to 7% silicon)	4 mg	*	1 mg	*
Boron (1:1 glycinate:citrate)	2 mg	*	0.5 mg	*

* Daily Value (DV) not established.
 Other ingredients: cellulose, silica, (tablets only: vegetable magnesium stearate.) THIS VEGETARIAN PRODUCT CONTAINS NO gluten, wheat, yeast, corn, soy, eggs or dairy, no preservatives, colors or flavors, and no toxic levels of aluminum, lead or other heavy metals. NATURAL MANUFACTURING AGENTS ONLY. 100

REFERENCES 1. Brown, Susan, Better Bones, Better Body. (New Caanan, CT: Keats Publ. 1996), pg. 23; 2. Strause L, Saltman P, et al. Spinal bone loss in postmenopausal women supplemented with calcium and trace minerals. *J Nutrition*; 1994 July; 124(7): 3. Smith, KT, et al. Calcium absorption from a new calcium delivery system calcium citrate-malate. *Calcif Tissue Int* 1987; 41:351-352; 4. Dawson-Hughes B, et al. A controlled trial of the effect of calcium supplementation on bone density in postmenopausal women. *N Engl J Med* 1990; 323: 878-883; 5. Dawson-Hughes B, et al. Effect of calcium and vitamin D supplementation on bone density in men and women 65 years of age or older. *N Engl J Med* 1997 Sept 4;337(10) 670-6; 6. Fatemi, S, Rysen E, et al. Effect of experimental magnesium depletion on parathyroid hormone secretion and 1,25-dihydroxy vitamin D metabolism. *J Clin Endocrinol Metab* 73(5):1067-72,1991; 7. Stendig-Lindberg G, Tepper R, et al. Trabecular bone density in a two year controlled trial of peroral magnesium in osteoporosis. *Magnes Res* 1993 June; 6(2):155-63; 8. Sojka JE, Weaver CM. Magnes. Supplementation & osteopor. *Nutr Rev* 1995 Mar; 53(3): 71-74; 9. Volpe SL et al. The relationship between B and Mg status and bone mineral density in the human: a review. *Magnes Res* 1993 Sept 6(3) 291-296; 10. Eisinger J, Claiert D. Effects of Si, F, Etidronate and Mg on bone mineral density. *Magnes Res* 1993 Sept. 6(3) 247-249

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.