

BONE HEALTH

Clinical applications



- Comprehensive Foundational Bone Health for All Ages
- Promotes Bone Health and Proper Calcium Storage
- Boosts Key Enzymes in Calcium Regulation
- Maintains Healthy Vitamin D Levels and Immune Health

MUSCULOSKELETAL HEALTH

Bone Health includes 300 mg of elemental calcium and 300 mg of elemental magnesium per serving, with multiple forms of calcium to ensure maximum absorption. Bone Health also includes the highest-quality forms of vitamin K2 (MK-7), and vitamin D (D3) to ensure maximum bioavailability and a synergistic benefit for the absorption and assimilation of calcium within the body. Bone Health covers the most common nutrient deficiencies in one convenient, foundational bone health formula.

OVERVIEW

Epidemiologic studies and national nutrient surveys indicate key nutrient deficiencies are widespread, specifically vitamin D, magnesium, and vitamin K. All play dynamic roles in calcium absorption, integration and administration within the body.¹⁻³ Current research estimates that 70% of the US population doesn't meet estimated average requirements (EAR) for vitamin D; approximately 60% of the US population doesn't meet EAR for magnesium and approximately one-third of the western population is deficient in vitamin K2.^{3,4} Poor diets, nutrient depletion from medications, and poor intestinal absorption all contribute to insufficient intake of these foundational nutrients. Bone Health provides 300 mg of calcium (150 mg in the form of hydroxyapatite) and 300 mg of magnesium per serving, in a 1:1 ratio.

HYDROXYAPATITE†

Calcium in bone is combined with phosphorus to form microcrystalline hydroxyapatite (MCH). In the body, phosphorus is second in abundance only to calcium, and is necessary for bone growth, cellular health, and acid-alkaline balance. Phosphate makes up 50% of bone tissue

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and is an essential ingredient in calcium supplements to promote bone strength and remodeling. Bone Health uses multiple forms of calcium, including MCH, to maximize absorption.⁵ Calcium is most well-known for its role in the formation of bone and teeth, but it also plays a role in keeping the heart and muscles functioning by governing muscle contractions.

MAGNESIUM†

Magnesium comprises about 1% of bone mineral and is known to influence both bone matrix and bone mineral metabolism. A tight control of magnesium homeostasis seems to be crucial for bone health.⁶ As the magnesium content of bone mineral decreases, apatite crystals of bone become larger and more brittle. Magnesium controls potassium and calcium uptake, assists in electrical nerve activity, and manages the metabolism of carbohydrates. Magnesium malate enhances the absorption of calcium, and works in tandem with calcium to allow muscles to contract and relax. Combined, calcium and magnesium balance are maintained through an intricately linked relationship that supports muscle, nervous system function, and foundational bone health.^{8,9}

VITAMIN K2 (AS MK-7)†

Vitamin K2 helps to bind newly absorbed calcium to the mineral matrix in bone through its activation of the protein osteocalcin. In addition, vitamin K has been found to help maintain bone mineral density by decreasing the activity of osteoclasts, or cells that break down the bone matrix. Vitamin K also provides critical cardiovascular protection by helping to carboxylate matrix GLA protein (MGP), an inhibitor of circulatory calcification.¹⁰⁻¹² A 2005 study from northern Finland found that those with greater levels of vitamin K-carboxylated osteocalcin had stronger bones than those with lower levels of the protein. A Japanese study found superior bone health among women who frequently consumed vitamin K2 (as MK-7) compared to those who did not.¹³

VITAMIN D (AS D3)†

Vitamin D is essential for the efficient utilization of calcium by the body. Vitamin D normalizes serum calcium by increasing the intestinal absorption of dietary calcium, increasing the reabsorption of calcium filtered by the kidneys, and mobilizing calcium from bone when there is insufficient dietary calcium to maintain normal serum calcium concentrations.^{14,15} Vitamin K and vitamin D share similar qualities, and act in synergy within the body to maintain calcium balance and proper distribution. A randomized study that split 172 women into a vitamin K2 group, a vitamin D3 group, a vitamin K2 and D3 group, and a placebo group for two years found that the combination of vitamin D3 and K2 had the most benefits for supporting bone health among the groups.¹⁶ This formulation includes 45 mcg of vitamin K2 and 1,000 IU of vitamin D3 per serving for optimal absorption and use by the body.

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Supplement Facts^{V1}

Serving Size 3 Capsules
Servings Per Container 30

	Amount Per Serving	% Daily Value
Vitamin D (D3 as Cholecalciferol)	25 mcg (1,000 IU)	125%
Calcium (as Calcium Hydroxyapatite, DimaCal™ Dicalcium Malate)	300 mg	23%
Phosphorus (as Calcium Hydroxyapatite)	65 mg	5%
Magnesium (as DiMagnesium Malate)	300 mg	71%
Vitamin K2 (as Menaquinone-7 (MK-7)) (MenaQ7®PRO)	45 mcg	*

* Daily Value not established.

DIRECTIONS

3 capsules per day or as recommended by your health care professional.

DOES NOT CONTAIN

Gluten, yeast, artificial colors or flavors.

CAUTION

If you are pregnant or nursing, consult your physician before taking this product. All forms of Vitamin K may interact with blood thinning medications. If you are taking such medicines please consult with your physician before taking this product.

OTHER INGREDIENTS:

Hypromellose (Natural Vegetable Capsules), Stearic Acid and Magnesium Stearate.

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