

OsteoBloX™ CF

Calcium-Free Bone Support*



Available in 60 vegetarian capsules

Discussion

Bone remodeling is a lifelong process that involves resorption of damaged bone by osteoclasts and novel bone matrix formation by osteoblasts. During growth years, bone formation outpaces destruction. If bone formation is not sufficiently supported after skeletal maturity has been reached, bone resorption may surpass formation, resulting in net bone loss. OsteoBloX CF features three complementary ingredients that work together to positively influence and maintain the balance of bone remodeling without using calcium.*

Bonolive® Olive Leaf Extract

Interest in the effects of olive polyphenols on bone metabolism was triggered by epidemiological data showing a lower incidence of hip fractures in people of European countries adhering to a Mediterranean diet. Indeed, in a two-year study, a Mediterranean diet enriched with virgin olive oil was shown to increase serum osteocalcin (bone formation marker) and P1NP (procollagen marker) concentrations.^[1] These beneficial effects on bone have been largely attributed to the polyphenol content of olive oil. In particular, olive leaves are a rich source of the main active olive polyphenol, oleuropein. Bonolive is a pharmaceutical-grade olive leaf extract that features a unique polyphenol complex (40% polyphenols), including oleuropein.*

Stem cell research has shown that olive polyphenol bioactivity is associated with increased osteoblast formation, increased extracellular matrix mineralization, and overall bone maintenance.^[2] A total of five preclinical studies in a well-established rat model for bone health confirmed this mode of action and demonstrated that olive polyphenols exert protective effects on the formation and maintenance of bone.^[3-7] In addition, a randomized, double-blind, placebo-controlled (RDBPC) clinical study provided strong support for Bonolive supplementation. The results of this study revealed that 250 mg/d of Bonolive promoted a statistically significant improvement (32% increase) in levels of osteocalcin over a 12-month period. Furthermore, DEXA scan results suggested that Bonolive supplementation positively supported BMD (bone mineral density) at the lumbar spine and the femur neck compared to placebo.^[8] It's worth noting that the treatment group also experienced reduced adipocyte formation and a positive effect on lipid metabolism (e.g., cholesterol and triglycerides), confirming Bonolive's double mode of action: to positively influence bone health and cardiovascular health.*

Certain cytokines (IL-1, TNF-alpha, IL-6) are thought to be involved in bone turnover regulation by increasing bone resorption.^[4] Moreover, an excess of reactive oxygen species can impair bone metabolism and lead to bone loss.^[9]

Clinical Applications

- » Supports Bone Health*
- » Promotes Healthy Bone Metabolism*
- » Supports Healthy Levels of Osteocalcin*
- » Promotes Osteoblast Activity and Bone Mineralization*
- » Supports Musculoskeletal Comfort*

*OsteoBloX™ CF features vitamin D3 as cholecalciferol, vitamin K as menaquinone-7 (MK-7), and Bonolive® olive leaf extract to give you science-based bone support without calcium. These nutrients address the multiple needs of a healthy skeletal system—from bone mineralization to stimulating bone-building cells.**

In experimental animal studies on ovariectomized rats, oleuropein and olives were shown to improve cytokine and oxidative status and thereby support bone maintenance.^[3-6] Bonolive is a fully water-soluble, proprietary olive leaf extract, which results in superior bioavailability. García-Villalba et al demonstrated the superior oral bioavailability of Bonolive polyphenols and their positive effect on antioxidant status in pre- and postmenopausal women.*^[10]

Bonolive has an excellent safety profile. Olive fruit, oil, and leaves have long histories of consumption and traditional use. Additionally, the 12-month Bonolive clinical trial by Filip et al showed no adverse effects. Most importantly, a comprehensive good laboratory practices toxicology assessment of Bonolive confirmed the safety of its oral consumption.*^[11]

Vitamin D3

Although vitamin D3 (cholecalciferol) is made in the skin when 7-dehydrocholesterol reacts with sunlight, many factors affect the degree to which this biosynthesis occurs, including time of day, season, location, smog/pollution, clothing, skin color (darker skin requires more sun), and sunscreen use. Low-cholesterol diets and certain cholesterol therapies can also affect vitamin D formation. By some estimates, one billion people worldwide have vitamin D deficiency or insufficiency.^[12] The body needs vitamin D to absorb calcium, and the importance of vitamin D in skeletal health and bone density is well-established. Insufficient vitamin D negatively affects calcium absorption.^[13] Without adequate absorption, the body must take calcium from its stores in the skeleton, which weakens existing bone and prevents the formation of strong, new bone. Vitamin D is also needed by osteoblasts and osteoclasts for bone remodeling. Researchers suggest that vitamin D supplementation may decrease bone turnover and increase BMD.^[14] A pooled analysis evaluating 11 RDBPC trials concluded that vitamin D supplementation (> 800 IU daily) was favorable in maintaining hip and nonvertebral bone integrity in individuals aged 65 and older.*^[15]

Vitamin K2

OsteoBloX CF provides vitamin K2 as menaquinone-7 (MK-7)—a bioactive, bioavailable form of vitamin K.^[16] The biological role of vitamin K in relation to calcium and bone is to help deposit calcium into appropriate areas in the

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OsteoBloX™ CF Supplement Facts

Serving Size: 1 Capsule

	Amount Per Serving	%Daily Value
Vitamin D3 (cholecalciferol)	1000 IU	250%
Vitamin K2 (as menaquinone-7)	20 mcg	25%
Olive Extract (<i>Olea europaea</i>)(leaves) (40% polyphenols)(Bonolive®)	250 mg	**
** Daily Value not established.		

Other Ingredients: HPMC (capsule), microcrystalline cellulose, ascorbyl palmitate, silica, and medium-chain triglyceride oil.
Bonolive is a registered trademark of BioActor.

DIRECTIONS: Take one capsule daily, or use as directed by your healthcare practitioner.

Consult your healthcare practitioner prior to use. Individuals taking medication should discuss potential interactions with their healthcare practitioner. Consider total vitamin K intake (food + supplements) if you are taking blood-thinning medication. Do not use if tamper seal is damaged.

DOES NOT CONTAIN: Wheat, gluten, yeast, soy, dairy products, fish, shellfish, peanuts, tree nuts, egg, ingredients derived from genetically modified organisms (GMOs), artificial colors, artificial sweeteners, or artificial preservatives.

STORAGE: Keep closed in a cool, dry place out of reach of children.



body, such as bones and teeth, and to prevent its accumulation in other areas, such as in arteries and soft tissues. It accomplishes this through carboxylation of Gla-proteins (e.g., osteocalcin). Vitamin K also supports bone integrity by moderating the synthesis of prostaglandin E2 (PGE-2) and interleukin-6 (IL-6) by osteoclasts.^[17,18] A three-year study utilizing 180 mcg/d of MK-7 concluded that MK-7 significantly improved vitamin K status, supported bone mineral content and BMD, and favorably supported bone strength and integrity in healthy postmenopausal women.*^[19]

References

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Additional references available upon request

All XYMOGEN® Formulas Meet or Exceed cGMP Quality Standards.

*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.