

Ossopan MD™



Available in 120 capsules

Discussion

More than 20 years of scientific research have given the name *Ossopan* worldwide recognition as a source of microcrystalline hydroxyapatite concentrate (MCHC). Numerous published studies support the safety, tolerability, and bone health-related effectiveness of MCHC supplementation.^[1,2] Studies suggest that the bioavailability of calcium from MCHC supplements may be as good as or better than the bioavailability of calcium from calcium gluconate supplements.^[3,4] XYMOGEN utilizes standardized, safe, bovine-sourced MCHC from New Zealand, a country with stringent standards. Its production features a proprietary technique that preserves the bioactive contents of bone. This process creates a naturally balanced formula because whole bone extract provides all of the nutrients found in healthy bone.*

Unlike other calcium supplements on the market, Ossopan consists of collagenous and non-collagenous proteins and peptides. These compounds include insulin-like growth factors I and II (IGF-I, IGF-II), transforming growth factor beta (TGF-beta), and osteocalcin, factors that stimulate alkaline phosphatase activity and support metabolism in human bone cells.^[5] Removal of the protein fraction appears to reduce the positive effects of the formula, highlighting the importance of its presence.*^[6]

A study suggested that the occurrence of positive and statistically significant changes in forearm bone integrity were the result of daily supplementation with 3000 mg of microcrystalline hydroxyapatite.^[7] Earlier studies compared Ossopan to other forms of calcium with regard to the support of normal bone turnover and bone mineral integrity. In one 20-month, double-blind study, women were given 1400 mg of elemental calcium (equivalent to approximately 5000 mg MCHC) as either calcium carbonate or Ossopan. At the end of the study, the presence of bone integrity was statistically significant in the Ossopan group.*^[8]

Clinical trials suggested that Ossopan supplementation was well-tolerated and yielded a positive outcome for dental status, bone integrity, and healthy bone metabolism.^[9,10] A randomized, controlled study indicated that the addition of Ossopan to exogenously administered hormones provided statistically significant support (4.7%, $P < 0.1$) to vertebral bone mass.^[10] Another study of 60 subjects suggested that bone mass was maintained while on Ossopan.*^[11]

Ossopan is high-quality MCHC from New Zealand. The World Organization for

- A factor in the maintenance of good health
- Helps in the development and maintenance of teeth and bones
- Helps in the absorption and use of calcium and phosphorus
- Calcium intake, when combined with sufficient vitamin D, a healthy diet, and regular exercise, may reduce the risk of developing osteoporosis
- Adequate calcium (and vitamin D) (throughout life) as part of a healthy diet, (along with physical activity) may help prevent bone loss/osteoporosis (in peri- and postmenopausal women) (in later life)
- Helps the body to metabolize carbohydrates, fats, and proteins
- Helps in tissue formation
- Helps to maintain proper muscle function
- Vitamin/mineral supplement

Animal Health (the OIE) has classified New Zealand as a “negligible BSE risk country,” the most favorable official classification a country can be given.^[12] Ossopan is manufactured under proprietary processes that meet FDA, USDA, and EU regulatory requirements. Gentle processing is used to retain the delicate protein matrix and organic factors. X-ray-diffraction analysis confirms the microcrystalline structure. The MCHC is assayed for hydroxyproline content. The collagen content is greater than 22% with the majority being type I, the predominant collagen occurring in bone. Frequent heavy metal assays assure purity.

Ossopan 1100™ delivers 1100 mg of Ossopan per capsule. Ossopan MD™ delivers 500 mg of Ossopan per capsule along with vitamin D, magnesium, and additional calcium. Vitamin D is provided as cholecalciferol, which stimulates intestinal calcium absorption and helps support calcium and phosphorus homeostasis in the body. Calcium is provided as MCHC and DimaCal® dicalcium malate, and magnesium is provided as Albion dimagnesium malate and TRAACS® magnesium bisglycinate chelate. The buffering malate forms of calcium and magnesium do not react with stomach acid and are less likely than carbonates to cause discomfort and acid rebound.*^[13]

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Ossopan MD™

Medicinal Ingredients (per vegetarian capsule)

Calcium (DimaCal® Calcium malate, Calcium hydroxyapatite)	200 mg
Magnesium (Albion® Dimagnesium malate)	50 mg
Vitamin D3 (Cholecalciferol)	(50 IU) 1.25 mcg

Non-Medicinal Ingredients

Hypromellose, microcrystalline cellulose, stearic acid, medium-chain triglycerides, magnesium stearate, silica.

Recommended Dose

Adults: Take 4 capsules daily a few hours before or after taking other medications, or as directed by your healthcare practitioner.

Some people may experience diarrhea.

References

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Additional references available upon request

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