Ossopan

Comprehensive Bone Support†

Ossopan MD™ is available in 120 and 240 capsules
Ossopan 1100™ is available in 120 capsules

Clinical Applications

- Supports Bone Metabolism†
- Supports Bone Strength†
- Provides Micronutrients for Utilization in Bone Production and Structure†

Ossopan is a well-researched, standardized extract from one of the world's safest premium sources of bone—free-range New Zealand cattle. Ossopan contains microcrystalline hydroxyapatite concentrate (MCHC), a complex crystalline compound containing calcium, phosphorus, bioactive growth factors, type I collagen, amino acids, glycosaminoglycans, and a broad range of essential trace elements that naturally comprise healthy bone.†

***Ossopan 1100™** delivers 1100 mg of MCHC per capsule to optimally support bone strength and structure. **Ossopan MD™** delivers 500 mg of MCHC per capsule along with additional calcium and magnesium in the form of highly absorbable Albion® minerals. Vitamin D, in the form of cholecalciferol, supports intestinal calcium absorption and homeostasis in the body and completes the comprehensiveness of this bone-support formula.†*

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 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]

†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.

Ossopan 1100™ Supplement Facts

Serving Size: 2 Capsules

	Amount Per Serving	%Daily Value
Calcium (as MCHC)[S1]	550 mg	42%
Phosphorus (as MCHC)[S1]	198 mg	16%
MCHC[S1]	2.2 g	**
Microcrystalline Hydroxyapatite (as MCHC)[S1]	1.32 g	**

** Daily Value not established.

Other Ingredients: Capsule (hypromellose and water), vegetable stearic acid, medium-chain triglyceride oil, microcrystalline cellulose, vegetable magnesium stearate, and silica.

DIRECTIONS: Take one to two capsules up to two times daily, or as directed by your healthcare professional.

Consult your healthcare professional prior to use. Individuals taking medication should discuss potential interactions with their healthcare professional. Do not use if tamper seal is damaged.

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

FORMULATED TO EXCLUDE: Wheat, gluten, corn, yeast, soy, dairy products, fish, shellfish, peanuts, tree nuts, egg, ingredients derived from genetically modified organisms (GMOs), artificial colors, artificial sweeteners, and artificial preservatives.

S1. Microcrystalline Hydroxyapatite Concentrate.

VEGETARIAN CAPS

Ossopan MD™ Supplement Facts

Serving Size: 2 Capsules

	Amount Per Serving	%Daily Value
Vitamin D3 (cholecalciferol)	2.5 mcg (100 IU)	13%
Calcium (as MCHC[S1] and dicalcium malate[S2])	400 mg	31%
Phosphorus (as MCHC)[S1]	90 mg	7%
Magnesium (as dimagnesium malate)[S2]	100 mg	24%
MCHC[S1]	1 g	**
Microcrystalline Hydroxyapatite (as MCHC)[S1]	600 mg	**

** Daily Value not established.

Other Ingredients: Capsule (hypromellose and water), microcrystalline cellulose, vegetable stearic acid, medium-chain triglyceride oil, vegetable magnesium stearate, and silica.

DIRECTIONS: Take two capsules with meals, twice daily, or as directed by your healthcare practitioner.

Consult your healthcare practitioner prior to use. Individuals taking medication should discuss potential interactions with their healthcare practitioner. Do not use if tamper seal is damaged.

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

FORMULATED TO EXCLUDE: Wheat, gluten, yeast, soy, dairy products, fish, shellfish, peanuts, tree nuts, egg, ingredients derived from genetically modified organisms (GMOs), artificial colors, artificial sweeteners, and artificial preservatives.

S1. Microcrystalline Hydroxyapatite Concentrate

S2. Albion®, DimaCal®, and TRAACS® are registered trademarks of Albion Laboratories, Inc. Malates covered by US patent 6,706,904.

VEGETARIAN CAPS

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Additional references available upon request

All XYMOGEN® Formulas Meet or Exceed cGMP Quality Standards.

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