

Osteo Formula™



CLINICAL APPLICATIONS

- Comprehensive Bone Support for adults who have or are at risk for Reduced Bone Density/Integrity
- Back Pain Management
- Support for Bone Density During Corticosteroid Treatment

Osteo Formula™ is an encapsulated comprehensive bone support formula. Microcrystalline hydroxyapatite concentrate (MCHC) contributes calcium, phosphorus, organic factors and protein matrix, bone-derived growth factors, and a full spectrum of trace minerals that naturally comprise healthy bone. Additional calcium and magnesium are in the form of highly absorbable, Albion®-patented, totally-reacted, malate-containing chelates. Vitamin D is as cholecalciferol.

All 360 Medicine® Formulas Meet or Exceed cGMP quality Standards

DISCUSSION

A randomized-controlled study concluded the combination of ossein hydroxyapatite (“OHC”, generic Osteo Formula®) and HRT increased vertebral bone mass in postmenopausal women to a greater extent (4.7%, P<.01) than did HRT alone.¹ Another randomized-controlled study divided 60 postmenopausal women not on HRT into three groups. One group did not receive any treatment, one received calcium carbonate(CC) and the third received OHC. Subjects on OHC therapy did not show significant changes from baseline bone density; density decreased significantly in the CC group during the second year and decreased in the control group at the first and second bone mineral density measurement.² Yet another double-blind study showed OHC is more effective than CC in slowing peripheral trabecular bone loss in patients with manifest osteoporosis.⁶ The bioavailability of calcium in ossein-mineral complex was also proven to be as good as, if not better than, that of Ca-gluconate.³

Two randomized clinical trials demonstrated Osteo Formula® is well-tolerated and prevents the onset or progression of osteoporosis in patients treated with corticosteroids.^{4,5} Only two subjects out of 19 subjects who reported back pain at the beginning of a study still had any complaint after the 12-month trial on Osteo Formula®.⁴

Unlike other calcium supplements on the market, Osteo Formula™ consists of collagenous and non-collagenous proteins/peptides that contain insulin-like growth factor I (IGF-I), insulin-like growth factor II (IGF-II), transforming growth factor beta (TGF-beta) and osteocalcin. These factors stimulate the activity of alkaline phosphatase in human bone cells.⁶

Calcium absorption in the intestines is stimulated by vitamin D, likely deficient in the American diet/lifestyle.⁷ The normal aging process in combination with a Vitamin D insufficiency may lead to secondary hyperparathyroidism in the elderly, a condition that facilitates bone loss. Osteo Formula™ contains vitamin D3, a pre-formed source of vitamin D activity. Dietary magnesium deficiency has been linked to osteoporosis. Osteo Formula™ contains magnesium in a 2:1 ratio with calcium. The malates do not react with stomach acid and are less likely than carbonates to cause gas and acid rebound.⁸

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Osteo Formula™



Supplement Facts

Serving Size: 4 Capsules
Servings Per Container: 30

	Amount Per Serving	%Daily Value
Calcium (from MCHC† and di calcium malate)	800 mg	80%
Magnesium (as di magnesium malate and magnesium glycinate)	400 mg	100%
Vitamin D (as cholecalciferol)	200 IU	50%
MicroCrystalline Hydroxyapatite Concentrate	2000 mg	**

†MCHC : MicroCrystalline Hydroxyapatite Concentrate.
** Daily Value not established.

Other Ingredients: Cellulose, Magnesium Stearate and Stearic Acid.

DOSING:

Osteo Formula™ may interfere with the gut absorption of the antibiotic tetracycline. This interaction may be overcome by separating the doses of the antibiotic and the supplement by at least two hours.^{9,10}

REFERENCES

1. Castelo-Branco C, Martinez de Osaba MJ, Pons F, Casals E, Sanjuan A, Vicente JJ, Vanrell JA. Ossein-hydroxyapatite compounds for preventing postmenopausal bone loss. Coadjuvant use with hormone replacement therapy. *J Reprod Med.* 1999 Mar;44(3):241-6 [PMID: 10202741]
2. Castelo-Branco C, Pons F, Vicente JJ, Sanjuan A, Vanrell JA. Preventing postmenopausal bone loss with ossein-hydroxyapatite compounds. Results of a two-year, prospective trial. *J Reprod Med.* 1999 Jul; 44 (7): 601-5. [PMID: 10442322]
3. Buclin T, Jacquet AF, Burckhardt P. [Intestinal absorption of calcium gluconate and ossein-mineral complex: an evaluation by conventional analyses] *Schweiz Med Wochenschr.* 1986 Dec 13;116(50):1780-3. [PMID: 3026039]
4. Pines A, Raafat H, Lynn AH, Whittington J. ('Ossopan') in the prevention of osteoporosis due to corticosteroid therapy. *Curr Med Res Opin.* 1984;8(10):734-42 [PMID: 6373153].
5. Stellan A, Davies A, Webb A, Williams R. Microcrystalline hydroxyapatite compound in prevention of bone loss in corticosteroid-treated patients with chronic active hepatitis. *Postgrad Med J.* 1985 Sep; 61 (719): 791-6. [PMID: 2997764]
6. Stepan JJ, Mohan S, Jennings JC, Wergedal JE, Taylor AK, Baylink DJ Quantitation of growth factors in ossein-mineral-compound. *Life Sci.* 1991;49(13):PL79-84 [PMID: 1653384]
7. Plotnikoff GA, Quigley JM. Prevalence of severe hypovitaminosis D in patients with persistent, nonspecific musculoskeletal pain. *Mayo Clin Proc.* 2003 Dec;78(12):1463-70. [PMID: 14661675]
8. Malic acid can be the right ligand for certain applications. *Albion® Research Notes*; April 2002;12(2):3
9. Product literature from Robapharm AG. 174 St Albanrheinweg CH-4006 Basle Switzerland Sanofi Winthrop Ltd One Onslow Street Guildford Surrey GU1 4YS Sanofi Winthrop Ireland Ltd Pottery Road Dun Laoghaire Ireland
10. URL: www.2.netdoctor.co.uk/medicines/showpreparatoipn.asp?id=1959 {Accessed 27 Oct 06}

CONTRAINDICATIONS

Use with caution in patients who are paralyzed or bedridden, those with a history of kidney or bladder stones. Avoid if hypercalcemia or hypercalciuria is present. No harmful effects have been reported by taking the original Osteo Formula® during pregnancy or while breastfeeding; however, the added vitamin D and magnesium should be considered. No side effects have been reported with the use of Osteo Formula®.^{9,10}

*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.