

OsteoForce™



New & Improved Formula

THIS INFORMATION IS PROVIDED FOR THE USE OF PHYSICIANS AND OTHER LICENSED HEALTH CARE PRACTITIONERS ONLY. THIS INFORMATION IS INTENDED FOR PHYSICIANS AND OTHER LICENSED HEALTH CARE PROVIDERS TO USE AS A BASIS FOR DETERMINING WHETHER OR NOT TO RECOMMEND THESE PRODUCTS TO THEIR PATIENTS. THIS MEDICAL AND SCIENTIFIC INFORMATION IS NOT FOR USE BY CONSUMERS. THE DIETARY SUPPLEMENT PRODUCTS OFFERED BY DESIGNS FOR HEALTH ARE NOT INTENDED FOR USE BY CONSUMERS AS A MEANS TO CURE, TREAT, PREVENT, DIAGNOSE, OR MITIGATE ANY DISEASE OR OTHER MEDICAL CONDITION.

This **new and improved formula** no longer requires 6 tablets daily to deliver all the bone supportive nutrients needed to restore healthy bones. Now 4 tablets daily supplies all the necessary rebuilding vitamins and minerals in their most absorbable forms. This bone formula is now more suitable for being taken along with Designs for Health's Twice Daily Multi. The minerals chosen for this formula are from Albion Advanced Nutrition, the leader in formulating truly chelated minerals with outstanding absorption. The calcium and magnesium are supplied in an ideal 2:1 ratio. A higher intake of calcium than that supplied in OsteoForce is not necessary due to the far greater absorption of calcium bis-glycinate chelate in comparison to other non-chelated calcium salts typically supplied by other manufacturers.

OsteoForce and Twice Daily Multi now make a perfect match if taken together with little overlap. Other supportive formulas include: Thyroid Synergy, Adrenotone Plus and PaleoGreens.

Supplement Facts

Serving Size 4 tablets

Servings Per Container 30

Amount Per Serving	% Daily Value	
Vitamin C (as Calcium Ascorbate)	100 mg	167%
Vitamin D (as Cholecalciferol)	600 IU	150%
Vitamin K (as Phytonadione)	1000 mcg	1250%
Calcium (as DiCalcium Malate, Bis-Glycinate Chelate, Calcium Ascorbate, and Calcium Carbonate as binder only)	800 mg	80%
Magnesium (DiMagnesium Malate and Buffered Glycinate Chelate)	300 mg	75%
Zinc (as Chelazome® Bis-Glycinate Chelate)	5 mg	33%
Copper (as Chelazome® Bis-Glycinate Chelate)	1 mg	50%
Manganese (as Chelazome® Bis-Glycinate Chelate)	2 mg	100%
Potassium (as Glycinate Complex)	50 mg	1%
Boron (as Glycinate Complex)	4 mg	*

*Daily Value not established.

Other Ingredients: Stearic acid, microcrystalline cellulose, croscarmellose sodium, cellulose, silicon dioxide, and magnesium stearate.

WHY ALBION CHELATED MINERALS?

Here are some of the advantages of DFH having the Albion Mineral Technology in its products:

- Totally bioavailable minerals!
- Albion possesses over 70 patents in the field of mineral technology.
- Only Albion mineral amino acid chelates have been given CAS Registry Numbers.
- Only Albion mineral acid chelates are Kosher - Parve.
- Albion metal amino chelates have been chemically validated and consequently are the only chelates that meet NNFA definition.
- Virtually all published research on metal amino acid chelates has been done using Albion Metal Amino Acid Chelates.

VITAMIN D

"The vitamin D endocrine system influences Ca and P metabolism by affecting the target organs: intestine, bone and kidney. The active metabolite, 1,25(OH)₂vitamin D₃ (calcitriol) facilitates active Ca absorption in the intestine by stimulating the synthesis of Ca binding protein (calbindin) as well as being involved in bone turnover. Vitamin D status declines with age for many reasons: lower exposure to sunlight, decreased ability to activate precursors in the skin, decreased ability of the kidney and liver to hydroxylate vitamin D, lesser end-organ response to calcitriol itself, reduced dietary intake and diminished absorption from food, as well as the use of anticonvulsant and/or steroid drugs. A substantial proportion of patients with hip fractures also have osteomalacia, caused by vitamin D deficiency.¹ Vitamin D deficiency may also be associated with reduced muscular function² which may increase risk for falling."

VITAMIN K

"Vitamin K is a coenzyme for glutamate carboxylase, an enzyme that mediates the conversion of glutamate to gamma carboxyglutamate, (known as a Gla protein). Gla residues attract positive Ca ions and, by that, enhance its incorporation into the hydroxyapatite crystals, thus increasing bone deposition. Low dietary or circulating vitamin K levels are associated with low BMD (bone mineral density) or increased fractures.^{3,4} Vitamin K supplementation reduces undercarboxylated osteocalcin^{5,6} reduces urinary Ca excretion⁶ and improves bone turnover profile.^{7,8} High levels of undercarboxylated osteocalcin (presumably, as the consequence of low vitamin K) are associated with low BMD and increased hip fractures.^{9,10}"

MINERAL RESEARCH HIGHLIGHTS

- A study on zinc deficiency concluded that zinc deficiency can lower the contents of parathyroid hormone and calcitonin in blood circulation affecting bone mineral deposit and causing defect in bone mineralization. **Effects of zinc deficiency on bone mineralization and its mechanism in rats.** Zhonghua Yu Fang Yi Xue Za Zhi. 2003 Mar;37(2):121-4. Zhang YH, Cheng YY, Hong Y, Wang DL, Li ST.
- Zinc regulates secretion of calcitonin from thyroid gland and influences bone turnover. Copper induces low bone turnover by both suppressions of osteoblastic and osteoclastic functions. A study that looked at mineral amounts in bone and hair of normal subjects vs. osteoporotic patients found significantly lower amounts of zinc, copper and manganese in osteoporotic patients. **Effects of essential trace elements on bone turnover--in relation to osteoporosis.** Nippon Rinsho. 1996 Jan;54(1):148-54. Okano T.
- Another study found that low dietary zinc (3 mg/day) resulted in undesirable changes in circulating calcitonin and osteocalcin. It also found that a moderately high intake of zinc (53 mg/day) decreased magnesium balance which supports taking both of these minerals along with calcium to maximize bone density. **A moderately high intake compared to a low intake of zinc depresses magnesium balance and alters indices of bone turnover in postmenopausal women.** Eur J Clin Nutr. 2004 May;58(5):703-10. Nielsen FH, Milne DB.
- A study performed in Spain shows that a manganese supplement is an effective inhibitor of loss of bone mass after ovariectomy both on the axial and the peripheral levels, but was not enhanced with the addition of copper. **Effects on bone loss of manganese alone or with copper supplement in ovariectomized rats. A morphometric and densitometric study.** Eur J Obstet Gynecol Reprod Biol. 2000 May;90(1):97-101. Rico H, Gomez-Raso N, Revilla M, Hernandez ER, Seco C, Paez E, Crespo E.

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