DR. AUBURN'S

This product provides three unique forms of highlyabsorbed calcium to ensure maximum absorption of this important macromineral. While most calcium supplements use only a single-source of calcium, which can easily overwhelm a single pathway of absorption and limit uptake, this product takes advantage of three unique pathways of absorption by providing calcium in the hydroxyapatite, di-calcium malate, and glycinate forms. In addition, this product includes vitamin D and phosphorus, both critical nutrients for bone mineralization and remodeling.

Overview

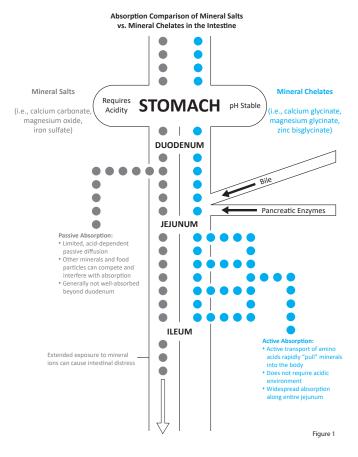
Calcium is required for strong bones, heart health, muscle function, nerve transmission, intracellular signaling and hormonal secretion. It is less than 1 % of total body calcium that supports these critical metabolic functions¹. The body uses bone tissue as a reservoir for calcium, as well as a source of calcium, to maintain constant concentrations of calcium in blood, muscle and intercellular fluids.¹ The remaining 99 % of the calcium supply in the body is stored in the bones and teeth, serving as a mineral reserve and structural support for the body.¹

Bioavailability – The Mineral Chelate Difference⁺

The importance of bioavailability is obvious. If consuming a calcium supplement has little effect on improving the body's calcium balance, there is no reason to ingest it. Signs of inferior mineral supplements include the use of cheap, poorly absorbed, rock-salt minerals, like calcium carbonate and magnesium oxide (See Figure 1). These mineral forms slow and limit absorption, relying on adequate stomach acid to release calcium ions which then enter the body via passive diffusion. And, because they tend to remain in the intestines longer, these forms of mineral supplements can cause intestinal distress such as constipation (calcium carbonate) or diarrhea (magnesium oxide).

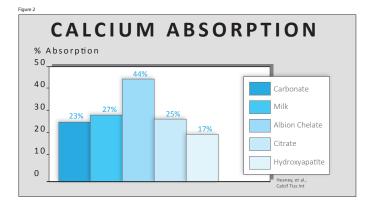
CLINICAL APPLICATIONS

- Provides Three Forms of Highly-Absorbed Calcium for a Variety of Protocols
- High-Concentration Calcium to Support Any Bone Building Protocol
- INCREASES Skeletal Strength and Promotes Healthy Bone Density



This product provides the benefit of highly-absorbed, Albion[®] mineral chelates. Albion[®] is the world leader in manufacturing highly bioavailable mineral chelates, a specialized form of minerals bound to amino acids. This patented process creates organic mineral compounds which use active absorption mechanisms in the gastrointestinal tract to greatly enhance mineral absorption. Comparison studies have shown significantly superior absorption of mineral chelates compared to other mineral forms. In a clinical study comparing calcium absorption in humans, Albion[®]'s patented calcium chelate delivered the greatest absorption of all calcium sources tested (See Figure 2).²

- Calcium from calcium carbonate is often absorbed at very low levels (less than 10 %).²
- In a human clinical study, Albion®'s patented calcium chelate formulation averaged 44 % absorption of the dose without the benefit of meal enhancement.² No other calcium form has an equivalent or higher rate of absorption.



In addition, mineral chelates are gentle, gut "friendly" minerals that do not cause constipation that often accompanies calcium carbonate and other rock-salt forms. Albion®'s mineral chelates have extensive clinical research proving their superior bioavailability, biologic activity, stability and improved tolerance.

Bone Health[†]

Bones increase in size and mass during periods of growth in childhood and adolescence, reaching peak bone mass around age 30. The greater the peak bone mass, the longer one can delay serious bone loss with increasing age. Consuming adequate amounts of calcium, phosphorous and vitamin D is essential throughout childhood, adolescence and early adulthood. Inadequate calcium intake may lead to poor bone and dental health and contribute to advanced stages of impaired condition of the bones.¹ This product is designed to promote absorption and utilization. Vitamin D significantly enhances the absorption and transport of calcium. Phosphorous is stored in the bones as tricalcium phosphate the same form found in this product, supplying the ideal ratio of calcium to phosphorus to further enhance bone strength and development. Calcium hydroxyapatite is used for its proven role in enriching bone mineral density (BMD). Hydroxyapatite is essentially a mineralized matrix that promotes resistance to bone shock and compression and is essential to reinforcing the bone matrix.³ Decades of scientific studies suggest that hydroxyapatite supplementation fundamentally supports BMD and bone health.⁴⁻⁷ A meta-analysis of six controlled studies demonstrated that hydroxyapatite was significantly more effective than calcium carbonate in supporting healthy bone structure and BMD.^{8]}

Directions

1-2 capsules three times per day or as recommended by your health care professional.

Does Not Contain

Gluten, yeast, artificial colors or flavors.

Cautions

If you are pregnant or nursing, consult your physician before taking this product.

| Supplement Facts Serving Size 2 Capsules Servings Per Container 90 | | |
|--|-----------------|-------------|
| | | |
| Vitamin D (D3 as Cholecalciferol) | 10 mcg (400 IU) | 50% |
| Calcium (as Calcium Hydroxyapatite, Albion [®] Min Albion [®] Minerals Calcium Bisglycinate Ch | | 38% USP) |
| Phosphorus (as Calcium Hydroxyapatite) | 143 mg | 11% |

References

- Committee to Review Dietary Reference Intakes for Vitamin D and Calcium, Food and Nutrition Board, Institute of Medicine. Dietary Reference Intakes for Calcium and Vitamin D. Washington, DC: National Academy Press, 2010.
- 2. Heaney, RP. Carbonate Milk Albion Chelate Citrate Hydroxyapatite. *Calcif Tiss Int* 1990;46:300-4.
- Blair HC, Robinson LJ, Huang CL, et al. Calcium and bone disease. Biofactors. 2011 May-Jun;37(3):159-67. *Review*. [PMID: 21674636].
- Pelayo I, Haya J, De la Cruz JJ, et al. Raloxifene pluse ossein-hydroxyapatite compound versus raloxifene plus calcium carbonate to control bone loss in postmenopausal women: a randomized trial. *Menopause*. 2008 Nov-Dec; 15(6):1132-8. [PMID: 187914486].
- 5. Castelo-Branco C, Pons F, Vicente JJ, et al. 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].

- 6. Albertazzi P, Steel SA, Howarth EM, et al. Comparison of the effects of two different types of calcium supplementation on markers of bone metabolism in a postmenopausal osteopenic population with low calcium intake: a double-blind placebo-controlled trial. *Climacteric*. 2004 Mar;7(1):33-40. [PMID: 15259281].
- 7. Rüegsegger P, Keller A, Dambacher MA. Comparison of the treatment effects of ossein-hydroxyapatite compound and calcium carbonate in osteoporotic females. *Osteoporos Int*. 1995 Jan;5(1):30-4. [PMID: 7703621].
- Castelo-Branco C, Ciria-Recasens M, Cancelo-Hidalgo MJ, et al. Efficacy of ossein-hydroxyapatite complex compared with calcium carbonate to prevent bone loss: a meta-analysis. *Menopause*. 2009 Sep-Oct; 16(5):984-91. [PMID: 19407667].