

# CALCIUM HYDROXYAPATITE

## High Absorption Bone Builder

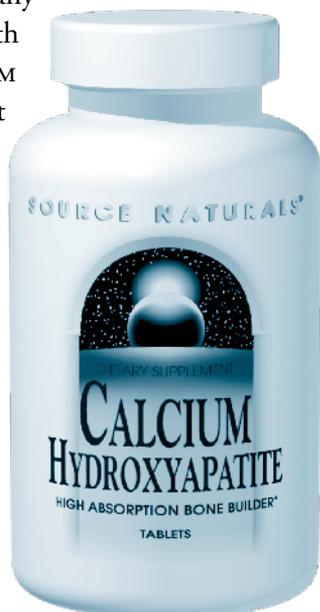


Many of us supplement our diets with calcium to increase and regulate bone density. But many of us are paying for calcium our bodies can't use—many forms of calcium are difficult to absorb, so all those good intentions may be wasted. But CALCIUM HYDROXYAPATITE is a highly absorbable form of calcium that your bones will easily absorb for a strong, healthy skeletal system.

Our bones are a matrix of living tissues that are in a constant state of absorption, formation, and interaction with other body functions. As with any

living system, the bones must be fed with the nutrients they need to thrive. CALCIUM HYDROXYAPATITE contains trace minerals that act as cofactors for enzymes involved in the production of the organic parts of the bone (phosphorus, magnesium, iron, zinc, copper, manganese.) Additionally, this formula includes vitamin D, which makes this calcium even more absorbable.

Source Naturals formulas go deep—they're beyond "down to the bone." These nutrients go *down to the cells*—highly absorbable nutrients for building and nourishing the skeletal system.



Strategies for Wellness<sup>SM</sup>

## It's All About Osteoblasts

Bone health centers around the intricate workings of three types of cellular functions. **Osteoblasts** are responsible for making bone, and other cells, called **osteoclasts**, remove bone as its minerals are needed for use elsewhere in the body. If the osteoclasts break down the bone more quickly than it is replaced, then bone tends to be porous and fragile. As we enter middle age, osteoblasts are less active than in youth. The third factor in bone health is **collagen**, a protein that forms the matrix webbing material upon which the bones form. Collagen forms into chains that interlock into a web of remarkable strength. As we age, the links in the chains become less elastic and more brittle. The secret to bone health is to feed these important cells with the nutrition they need to support their work.

Calcium balance is generally positive through youth, neutral in the mature adult, and negative in older adults. Calcium is lost in varying amounts through feces, urine, sweat, and sloughed skin cells. Reduced estrogen levels in women result in reduced calcium absorption and retention, increased bone turnover, and lower bone mass.

Although our bones naturally thin as we age, and many people are born with more dense bone structures than others, we do not have to be at the mercy of time and genetics.

## Superior Calcium

Calcium is the mineral that forms the basic structure of our bones and teeth. But not all calcium is created equal. The calcium in CALCIUM HYDROXYAPATITE is a naturally derived calcium extract from bovine bones. It contains phosphate, amino acids and other minerals in proportion to human needs. This form of calcium is highly bioavailable; it is easily absorbed and used by the body.

## Vitamin D

In earlier times, people obtained sufficient vitamin D from sunlight, which stimulates the body to manufacture it, or by eating oily fish, such as mackerel, salmon, and sardines. However many people no longer have dependable sources for this

important vitamin: they don't get sufficient sunlight, they do not eat enough fish, or their diets don't otherwise contain sufficient nutrients. Vitamin D is the most important regulator of calcium balance in the human body. It plays a vital role in bone development and mineralization. The addition of vitamin D in this formula increases the body's use and absorption of the calcium.

## Defying Age and Genetics

We do not have to be at the mercy of time and genetics. Weight-bearing exercise such as walking or running encourages bone strength, and a diet rich in calcium and vitamin D (green vegetables, beans, nuts, seeds, dairy products), and minerals such as boron (raisins, nuts, prunes, legumes) all help you obtain the nutrients you need.

## Go Deep

Source Naturals is pleased to bring you a product that is an excellent tool for managing your health and well-being from the very deepest levels possible, the cellular, biochemical levels. By caring for these primary processes, the health of the entire body is upheld. In the 12-system SystemiCare™ health care model, the Source Naturals CALCIUM HYDROXYAPATITE formula is important for one in particular: the Structure/Mobility system. As we take care of our skeletal system, our movement and mobility are supported, and the health of the entire body is enhanced.

## References:

- Chen TC, et al., (1993) An update on the vitamin D content of fortified milk from the United States and Canada. *New England Journal of Medicine*.329:1507
- Heaney RP, et al. (2003) Calcium absorption varies within the reference range for serum 25-hydroxyvitamin D. *Journal of the American College of Nutrition*. 22:142-146.
- Maggio D, et al. (2003) Marked decrease in plasma antioxidants in aged osteoporotic women: results of a cross-sectional study. *The Journal of Clinical Endocrinology and Metabolism*. 88:1523-1527.
- Simon JA, et al. (2001) Relation of ascorbic acid to bone mineral density and self-reported fractures among US adults. *American Journal of Epidemiology*. 154:427-433.



Strategies for Wellness<sup>sm</sup>

[www.sourcenaturals.com](http://www.sourcenaturals.com)



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.

© 2010 Source Naturals, Inc., P.O. Box 2118, Santa Cruz, CA 95063

REVA1001

LC3285