



Cal-Comp Product Composition 1150

Product Description

Inno-Vita's Cal-Comp is a carefully balanced array of medicinal herbs and elemental minerals vital to maintaining optimal muscular tissue tone and skeletal strength; and in the nervous system, facilitates the transportation of ions and nutrients across cell membranes.

Directions

One or two tablets up to twice a day for 2-4 weeks, or as directed. Take as needed for maintenance. Increase the amounts of liquids you drink while taking this product.

Supplement Facts

Serving Size: 2 Tablets Ingredients	Amount Per Serving	%DV
Vitamin C	30 mg	50%
Calcium (Coral Calcium; Calcium Citrate; Di Calcium Phosphate; Calcium Ascorbate)	750 mg	75%
Vitamin D	6400 IU	1600%
Vitamin E (D-Alpha Tocopherylsuccinate)	60 IU	200%
Phosphorus	60 mg	6%
Magnesium (Magnesium Oxide)	40 mg	10%
Silica	50 mg	*
Strontium	50 mg	*
Boron	1000 mcg	*
Proprietary Blend	273 mg	*
Thyroid FormCode™; Trace Minerals; Dill (Seeds); Betaine HCl; Red Yeast; Dog Rose (Fruit); Arrowroot (Rhizome); Ligusticum (Root); Horsetail (Above Ground); Turnip (Flower).		

* Daily Value (DV) not established.



60 Tablets

**"Vitamins
are absolutely
essential for growth,
maintenance, and reproduction
of the human body."**
-Dr. Kurt W. Donsbach

Calcium is the most abundant mineral in the body making 1.5 - 2% of the body's weight and 40% of the body's total mineral composition. Of the body's total calcium, 99% is found in the skeletal structures and teeth, and, the remaining 1% performs critical cellular functions in the cells of tissues, blood and extracellular fluids that regulate vital body functions. Calcium is often overlooked as it acts as a membrane stabilizer that aids in transporting ions across membranes of cell organelles, releasing neurotransmitters at synaptic junctions, and activating intracellular and extracellular enzymes. While calcium is traditionally considered for its effects on the skeletal system, Inno-Vita® also recognizes that calcium is a key mineral required to maintain regular heart beat and nerve transmissions.

Make "no bones about it"; there are three major bone functions of Cal-Comp:

- **Bone Composition** or 'compositing' of the skeleton begins with collagen fibers where crystallization of deposited salts of calcium and phosphorus combine with hydroxyl ions occur as hydroxyl-apatite, $\text{Ca}_{10}(\text{PO}_4)_6(\text{OH})_2$. Rigidity of the bone supported by tensile capacity of collagen mixed with compactness of calcium salts is the strength for the large and long bones, called cortical bone (80%). The remainder is called, trabecular or cancellous bone which is less dense and characterized as spongy bone found in the wrist, the iliac crest of the pelvis and vertebrae. Density and composition of the skeleton can affect the homeostasis of calcium in the body. When inadequate amounts of calcium is consumed, the body withdraws needed calcium from its own skeletal structure resulting in compromised bone integrity.

- **Bone remodeling** is a non-stop complex synthesizing mechanism and occurs throughout the lifecycle of the body. Although bone synthesis is predominated in children, normal adults exchange approximately 700 mg of calcium everyday. The remodeling mechanism occurs in all living bones and is an interaction between very specialized cells "osteoclasts (resorbing)" and "osteoblasts (forming)". By the osteoclast and osteoblast actions of these cells, all living bones are constantly dismantled and reformed. Osteoclasts will resorb



Normal bone

Osteoporotic bone

the minerals and organic compounds of the bones resulting in small cavities on the inner and outer bone surfaces, then, osteoclasts refill the cavities with fresh bone. The most active remodeling process takes place in trabecular bones where microscopic fractures and wear-and-tear happened due to weight-bearing stresses.

- **Bone Loss.** Throughout our normal young adult years, these osteoclastic and osteoblastic phases are balanced allowing optimal bone mass to be adequately maintained. However, in our adult years when bone resorption increases for prolonged periods of time, severe bone density diseases including osteoporosis occur. In fact, when the aging body doesn't receive a replenishment of calcium, the body will absorb up to 300 mg of calcium from its own bones each day. This diminishing bone loss begins for both sexes in their adult years beginning around the age of 40 and continues at an average rate of 1.2% per year for the remainder of their life.



Dog Rose (*Rosa canina*)

High in certain antioxidants and high levels of vitamin C



Did you know women 40 years and older lose 300 mg of calcium from their own bone mass each day?

Other very Important Functions of Inno-Vita's Cal-Comp

1. Extracellular calcium activates various enzyme reactions through the intermediacy of calmodulin and its homologs which are key for anti-inflammatory response, short and long term memory, regular heart beat, nerve cell growth and proper immune responses.
2. Calcium is essential in regulating metabolic pathways stimulating glycogen breakdown.
3. Calcium mediates many hormonal signals.
4. Calcium is a key co-factor and activates pyruvate dehydrogenase phosphatase enzymes in citric acid cycle of energy generation (ATP and NADH). This is very important in heart muscle because ATP generated by the citric acid cycle in heart muscle provides adequate energy for heart muscle contraction.

Inside Inno-Vita's Cal-Comp

1. **Coral Calcium:** Coral calcium is the key calcium source for Inno-Vita's Cal-Comp; however, the coral calcium used in our formula is NOT from ancient under water coral reefs that serve as fragile marine habitats. Unlike the coral harvested from this very fragile ecosystem, Inno-Vita's coral calcium is harvested from the pristine beaches of Northern Brazil where natural coral has been deposited when washed upon its shores for hundreds of years. In addition to calcium, this coral has been shown to contain much higher readily available nutrients including amino acids, magnesium, trace minerals and phyto-nutrients than other harvested under-water coral. Inno-Vita will continue to provide the highest quality ingredients without damaging our natural ecosystems.
2. **Calcium Citrate, Calcium Phosphate, and Calcium Ascorbate:** In order to maximize the absorption of calcium, additional calcium sources are included for people with weakened digestive and assimilative systems. Calcium citrate, calcium phosphate and calcium ascorbate will help the body effectively uptake the elemental calcium included in the formula.
3. **Vitamin D:** Adequate intake of vitamin D regulates osteocalcin, a bone-specific protein which results in helping prevent



Brazilian Coral Calcium

bone fracture. In addition, calcium combined with Vitamin D will help reduce potential secondary hyperparathyroidism that often happens in elderly people. Hyperparathyroidism will stimulate osteoclasts resulting in increased resorption and thereby causing less balancing formation by the osteoblasts.

4. **Vitamin E:** Large amounts of vitamin E is also included to help the body normalize and balance the aging process by reducing free radicals and catalyze peroxidation of the polyunsaturated fatty acids.
5. **Phosphorus:** Calcium and phosphorus are required to form hydroxylapatite, the major compound found in teeth and bones. Phosphorus presents a key role in the energy producing citric acid cycle in the heart muscle.

6. **Silica, Strontium, and Boron:** Silica is very important in cross linking of bone collagen. Strontium helps increase bone density and bone growth. Recently, strontium combined with calcium has statistically proven to make a significant increase in bone healing than calcium alone. Also, boron has been known to enhance the effects of estrogen in postmenopausal women which result in increased bone density and help prevent osteoporosis.

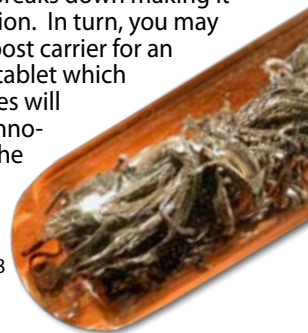
In addition to these ingredients, Cal-Comp includes other components to assist the overall effects of the formula in various key functions of the body and enhance the absorption rate of elemental calcium.



Important Note

A most successful feature of Inno-Vita's Cal-Comp is what it does NOT have. In order to explain, it is important to note that the body's absorption of calcium is in the upper intestines. Calcium that is not absorbed by the time it reaches the large intestine is largely wasted. In order to increase the absorption rate in the immediate upper small intestines, Inno-Vita has avoided using chemical coatings over the tablets which often strengthen it and keep it from breaking easily. Another absent ingredient is calcium carbonate (a.k.a. limestone), is the most common form of calcium in many other company's formulas. Because of its binding abilities, this very inexpensive ingredient is widely used for its ability to add strength to their tablets. In an effort to provide you with the best and most effective calcium supplement, Inno-Vita has sacrificed these two features. Add some moisture to a tablet and see for yourself how quickly Cal-Comp breaks down making it available for digestion. In turn, you may thank your parcel post carrier for an occasional broken tablet which Inno-Vita guarantees will work just as well. Inno-Vita's Cal-Comp is the ultimate choice!

Strontium
SR - atomic number 38



Dietary Intakes Recommended for Calcium

Individual Age	mg. daily	Cal-Comp Tablets
Infants 0-6 months	210	1 ground daily
Infants 6-12 months	270	1 ground daily
Children 1-3 years old	500	1 1/2 ground daily
Children 4-8 years old	800	2 daily
Adolescents 9-13 years old	1,300	4 daily
Teenagers 14-18 years old	1,300	4 daily
Adults 19-30 years old	1,000	3 daily
Adults 31-50 years old	1,000	3 daily
Adults 51 years old and older	1,200	4 daily
Pregnancy: Less than or equal to 18 years	1,300	4 daily
Pregnancy: 19 through 50 years	1,000	3 daily
Lactation: Less than or equal to 18 years	1,300	4 daily
Lactation: 19 through 50 years	1,000	3 daily

Source: Institute of Medicine, National Academy of Science, 2002