



OSTEO CAL:MAG

Keep your bones strong to support a full, active life. Enerex Osteo Cal:Mag offers highly-absorbable chelated Calcium and Magnesium, along with co-worker nutrients Boron, Silicon and Vitamins D and K that are vital to bones, and our superfood raw organic kale to combat acidity in the body — perhaps the missing link to osteoporosis prevention. We believe this formula is the most advanced and effective one available. It's good to the bone!

NPN: 80036903

- **Overview**
- **Ingredients**
- **Features**
- **Ailments**
- **Packaging**
- **Testimonials**



OVERVIEW

Bone building basics

A youthful, vibrant body, at any age, must have a strong structural foundation — meaning your skeleton. You may not give much thought to how healthy your bones are unless you break one. But, one in four women and one in eight men over the age of 50 has osteoporosis, and there are no symptoms... other than broken bones.

Will you get it?

In Canada, more women die each year as a result of osteoporotic fractures than from breast and ovarian cancer combined. Thousands of fractures happen annually in women 45 or older, and 70 percent are osteoporotic. Between 45 and 75 years of age, women lose 30 percent of their skeletal structure and men lose 15 percent — post-menopausal women lose up to 2 percent of bone per year; men lose .7 percent. The impact is magnified during and after menopause for women because loss of estrogen reduces your body's ability to regulate the cells which break down bone.

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Calcium confusion

Traditionally, doctors advised getting more Calcium from dairy foods to prevent osteoporosis, but research is proving that this is not the best way to build bones. Your body needs Calcium — it's used to contract and expand your muscles and blood vessels, to secrete essential hormones and enzymes, and to send messages through your nervous system. It's so important that without enough Calcium from your diet, your body robs what it needs from your bones. But the type or form that you get it in is crucial.

You are not what you eat; you are what you absorb

Part of the osteoporosis problem is Calcium absorption. It has been estimated that children absorb 75 percent of the Calcium they eat, and adults only absorb about 30 percent — adults' digestive systems aren't as efficient as we age. And whereas the Calcium in plant foods is ideal, dairy foods (milk, yogurt, cheese, ice cream) may actually work against the Calcium equation because its acidity might pull Calcium from bones to buffer it (read in FEATURES "A new way of thinking about osteoporosis") Most Calcium or Calcium/Magnesium supplements are also poorly absorbed so provide minimal benefit. (read in FEATURES "Moving beyond Calcium".)

What is osteoporosis?

Your body's 206 bones are living, ever-changing tissue. Throughout life, your body continuously creates new bone while breaking down and absorbing the old. Your entire skeleton will be replaced every 7 to 20 years (estimates vary), and bone density and strength peak at age 30. But poor nutrition, acidity, lack of exercise and sunshine, low parathyroid hormone and stress cause loss of Calcium and other minerals from bones. This starts to create tiny pits and holes that make them less dense, weak and brittle. This is osteoporosis.

Stay strong after sixty

Tips to reduce osteoporosis:

If you can stay strong and vital on the inside, you'll remain ageless on the outside. Instead of simply sitting by and "letting time take its course," be proactive in stopping, or at least slowing, its effects on your skeleton.

- Eat alkaline plant foods with Calcium and Magnesium like dark green leafy vegetables, broccoli, sprouts, legumes, nuts, raw seeds

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- Avoid caffeine, alcohol, sugar, and carbonated drinks high in Phosphorus that that leach Calcium from the body.
- Reduce animal protein. It increases acidity from increased Phosphorous and sulfur (and the body takes Calcium from bones to balance the resulting acidity)
- Poor nutrition is a major factor in osteoporosis. Bones need many nutrients in addition to Calcium and Magnesium including Zinc, Manganese, Copper, Vitamin C, Folic Acid and healthy fats. Be sure to get these in foods.
- Certain diseases carry higher risk including untreated celiac disease (loss of bone mass due to inadequate nutrition), rheumatoid arthritis (increased risk likely due to medication), and prostate and breast cancers — so supplement accordingly.
- Medications such as anti-seizure drugs, some steroidal drugs (glucocorticoids), sleeping pills, and some cancer drugs affect bones.
- Get your Vitamin D levels checked by your doctor, and take an additional supplement if required since it's a major factor in Calcium absorption.
- Exercise. Staying active (and doing weight-bearing exercise) is the single best way to prevent falls and fractures (not avoiding activity, as some people do!) because you keep bones strong and you stay limber.
- If you cannot get enough Calcium from food alone, supplement with an absorbable form of Calcium, Magnesium, Boron, Silicon, Vitamin D, Vitamin K, and an alkalizing greens supplement.

INGREDIENTS

EACH TABLET CONTAINS:

Calcium (HVP Chelate*, 100 mg elemental Calcium)	500 mg
Magnesium (HVP Chelate*, 100 mg elemental Magnesium)	500 mg
Silicon* (50 mg Bamboo, 70% elemental Silicon, <i>Bambusa vulgaris</i>) stems	35 mg
Boron (HVP Chelate*, 1 mg elemental Boron)	20 mg
Vitamin K2 (Menaquinone-7)	30 mcg
Vitamin D3 (Cholecalciferol) 100 IU	2.5 mcg
Organic Raw Kale	200 mg

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**Non-Medicinal Ingredients:**

croscarmellose sodium, microcrystalline cellulose, stearic acid, vegetable magnesium stearate, Silicon dioxide, carrageenan.

No other ingredients are added to this formula.

*Hydrolyzed Vegetable (rice) Protein (amino acid bonded minerals) – NO MSG

GLUTEN FREE - Enerex OSTEO is 3rd party tested to verify gluten content below 20 parts per million.

Directions:

Take three (3) tablets daily, one with each meal or as directed by a health professional.

FEATURES**Moving beyond Calcium**

Scientists that have tried to find out how to get Calcium into your bones have come to the realization that Calcium can't do the work on its own.

Calcium needs co-workers, called co-factors. Along with Calcium, your body must have enough Magnesium, Vitamin D, Vitamin K, and several trace minerals including Silicon and Boron. The mineral Boron, for example, helps to prevent loss of Calcium and Magnesium (excreted in the urine), and Silicon helps Calcium to be absorbed by the body. Therefore, an effective osteoporosis prevention strategy must include these proven co-factors to maintain bone mineral density and mass.

Calcium absorption depends on many variables including the type of Calcium used. Poorly absorbed Calcium carbonate (made from dolomite, shells or coral) acts mainly as an antacid – and is used in indigestion aids – but provides very little Calcium to the bones. Calcium absorption also depends on your age, the amount of protein in your diet, and whether your body gets enough co-factors mentioned.

Enerex **Osteo Cal:Mag** is scientifically designed to provide the most advanced form of Calcium-Magnesium in perfect balance and with the important booster nutrients so your body absorbs as much as possible.

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How to get your bones to take in Calcium

There are two kinds of minerals: organic and inorganic.

The form of the minerals in a supplement has a huge effect on its ability to be absorbed into your bones. You need minerals to be “organic” – those that are or were living and provide life to the body’s cells as food – rather than “inorganic” – metals and other substances that never were alive, are not broken down into usable material by the body, and can even be harmful.

By combining Calcium with an amino acid (in a process called “chelating”), Enerex’s **Osteo Cal:Mag** creates an organic chelate. As a result, studies show that 75% more Calcium is delivered to the bones than with inorganic (non-chelated) Calcium like Calcium carbonate. Magnesium, which also must be chelated in a supplement, is absorbed 87% when properly chelated, but only absorbed 16% when taken in an inorganic non-chelated form such as Magnesium oxide. (Graff, D., “Research on Mineral Absorption”, Weber State University, International Conference on Human Nutrition, 1995. And Grossman, T.M.D. “Chelated Minerals” *Nature’s Impact*, Dec/Jan 1997/98.)

The right Calcium-Magnesium equation?

The ratio of Calcium to Magnesium is also important, especially to prevent disorders including heart trouble, atherosclerosis and high blood pressure.

The body needs more Magnesium than what was once thought. This is because many of us don’t get enough Magnesium in our diet and it is difficult to absorb from food. Therefore, although the recommended dietary allowance (RDA) for Magnesium it is 400-450 mg/day, many researchers now recommend 1200 mg/day (with Calcium’s RDA at 800-1200 mg/day). Therefore, the ideal ratio for most people’s needs is an equal amount of Calcium and Magnesium. Since absorption and metabolism of Calcium and Magnesium are dependent on each other, balance between the two minerals is important.

How much do you need in a supplement?

Healthcare professionals often advise to take the full daily requirement of Calcium – 1200 mg a day – in a supplement. But this percentage does not take into account the Calcium that you get daily from foods.

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We believe that a supplement is just that; it should supplement the diet to bring the TOTAL dietary intake of Calcium to the healthy amount required. Enerex **Osteo Cal:Mag** suggests taking three tablets daily (1,500 chelated mgs of Calcium and Magnesium that equals only 300 mgs each of *elemental* Calcium and Magnesium) to help bring the total dietary intake of Calcium and Magnesium to the ideal when foods are included.

Most North Americans eat enough Calcium in foods. The most common problem is lack of Calcium absorption, not the amount of Calcium ingested. The danger of too much Calcium in the diet without Calcium co-factors (such as Magnesium, Boron, Silicon and Vitamin D) is that it can lead to plaque on the arteries and kidney and gallstones because unabsorbed Calcium is simply deposited – shoved away where it's not needed – in the body.

A new way of thinking about osteoporosis

Osteoporosis is not a disease caused only by lack of Calcium and other minerals, but also by excess acidity.

The body requires that blood is always at a constant pH (level of acidity vs. alkalinity). It regulates pH by using buffers that get rid of acids if they are too high. Since most North Americans are too acidic due to eating too much protein and processed foods, stress, medications, and lack of exercise, the body has to pull alkaline minerals from anywhere it can find them to buffer the pH. The largest store of minerals is in the bones – so it takes them from your bones. Over time, this weakens bones.

Treating acidity, treating osteoporosis

To balance the body's acidic levels, eat more fruits and veggies. Research shows that increasing fruit and vegetables in the diet decreases the risk of osteoporosis, even though most do not have large amounts of Calcium, because they have very alkalizing substances. Alkalizing foods help replenish the alkaline minerals in the body. And by decreasing the amount of Calcium and other minerals taken from bone, you may be able to prevent or even reduce osteoporosis. Enerex **Osteo Cal:Mag** includes the super alkalizing plant food raw organic kale to help offset acidity.

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Magnesium

Magnesium is essential for bone health, and it's also needed for the heart, antioxidant production, muscle relaxation, and enzyme activity in the body. Bone research: An American study found that older (aged 70 to 79) Caucasian men and women who get higher amounts of Magnesium in food and supplements have a higher bone mineral density. The study included over 1,000 participants in this category. (Ryder KM et al, Department of Medicine, University of Tennessee, Memphis, *Journal of the American Geriatric Society* 2005 Nov;53(11):1875-80.)

Silicon is vital for the growth and integrity of bones and joints, and to make your skin, nails and hair look youthful, because it is used to form collagen. Calcium supplements work better with Silicon (found in oats, barley, some vegetables) because it plays an important role in new bone growth — low Silicon has been associated with weak bones. In a French study of 53 women who had osteoporosis, Silicon supplementation produced a significant increase in bone density. ("Effects of Silicon, fluoride, etidronate and Magnesium on bone mineral density", Eisinger J, Clairet D, France. *Magnesium Research* journal, 1993 Sep;6(3):247-9.)

A study conducted by a group of scientists, including the Harvard Medical School Division on Ageing, found that Silicon (Silicon) intake is a major determinant of bone mineral density and bone health. The best-documented function of Silicon is that it helps bones calcify and mineralize — important for ageing bones. (Carol Seaborn PhD, Forrest Nielsen PhD, "Silicon: Nutritional Beneficence for Bones, Brains and Blood Vessels," *Nutrition Today*, 1993, naldc.nal.usda.gov/download/43868/PDF).

***A note about Silicon**

Although Silica and Silicon are used interchangeably, Silicon is a single atom and Silica is a larger molecule (atoms combine to make molecules). Silicon is commercially prepared for supplements using Silica. Your body constantly metabolizes Silicic Acid, meaning that Silicon is eliminated through urine, hair loss and nail trimming, so you need to replace it with food or supplements. **Enerex** uses a pure extract from bamboo shoots that is 70% organic Silica by weight (over 10 times the amount of Silicon that horsetail has, an herb which is often used for Silicon supplements).

Boron

The mineral Boron may retard bone loss. Osteoporosis happens when the bones' osteoblast cells cannot replace lost bone tissue as fast as the osteoclast cells break it down. Boron appears to have a balancing effect on this process, and also may reduce

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joint stress and arthritis, according to a 1994 study. (Rex Newnham, Ph.D., D.O., Rex E. *Journal of Applied Nutrition*, Volume 46, Issue 3, 1994)

Vitamin D3

Your body needs Vitamin D to absorb Calcium. Naturally derived Vitamin D (from the sun, eggs, fatty fish) is converted into an active form (calcitriol or D3) required for Calcium absorption in the gastrointestinal tract. Vitamin D also helps to maintain normal levels of phosphorus — too much phosphorus is detrimental to bones.

Vitamin K2

Vitamin K is important for a healthy bone protein called osteocalcin, which makes the thick web-like structure, or matrix, that holds bones together. And lack of Vitamin K may reduce the function of osteoblast cells (bone-forming cells in the body), which affects bone mineral density.

Raw Certified Organic Kale

Kale helps to combat acidity in the body due to its high alkaline qualities; it is important to balance the body's pH (level of acidity vs. alkalinity) to reduce risk of decreased bone density and bone diseases. Kale includes abundant fibre to help carry toxins out of the body by eliminating them through your intestines. (A one-cup serving of kale has 1-2 grams of fibre.)

Kale is full of nutrients including Vitamin A, K, B6, B3, B5, B1, calcium, iron, protein and magnesium. These vitamins and minerals are all important for bone health.

Raw Kale is also thought to naturally detoxify your body; it creates enzymes that may help your liver detoxify chemicals. Being a member of the cruciferous vegetable family like broccoli and cabbage, it has potent antioxidants and anti-inflammatory components that have clinically shown to both prevent and reduce cancers including breast, colon, ovarian and lung cancer.

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AILMENTS

Strength & Body-Building

To increase muscle strength and endurance, you must have enough Calcium to help muscle fibres contract, and Magnesium to make muscles relax. Enerex Osteo Cal:Mag offers highly-absorbable chelated Calcium and Magnesium, along with co-worker nutrients Boron, Silicon and Vitamins D and K. It includes raw greens like kale to combat acidity in the body that occurs during intense exercise and can stall your athletic progress.

Skeletal System

To keep your 206 bones strong, Enerex Osteo Cal:Mag offers highly-absorbable chelated Calcium and Magnesium, along with co-worker nutrients Boron, Silicon, and Vitamins D and K that are vital to bone health. It includes raw greens like kale to combat acidity in the body — perhaps the missing link to osteoporosis prevention.

PACKAGING

Why should you care about Enerex Osteo Cal:Mag's bottle? We chose this packaging because it protects the product and the planet.

Enerex products are housed in recyclable BPA-free PETE plastic containers to provide the best protection against oxidation, moisture, sunlight, and “chemical migration” from container to product (so the supplements don't acquire toxins from the plastic). In all of these areas, PETE is virtually equal to that of glass but without the larger environmental footprint left by glass packaging (it's very heavy to transport, using more fossil fuel).

PETE plastic is far superior to that of HDPE white plastic: HDPE plastic is used for the majority of products on the market, but unlike more costly PETE bottles, HDPE plastic starts to immediately degrade the product inside because it doesn't provide a protective barrier to oxygen or moisture. Studies show high concentrations of chemicals that have migrated from HDPE bottles to the product inside compared to PETE and glass bottles.

TESTIMONIALS

Please leave a testimonial if you really like this product.

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