

# Osteoporosis Prevention



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The leading nutritional deficiency associated with osteoporosis is Vitamin D deficiency. Studies estimate between 40 to 70 percent of North Americans may be deficient in this vitamin. Vitamin D functions more like a hormone than a vitamin. Vitamin D has a huge role in bone health. A key function of Vitamin D is enhancing calcium and other mineral absorption.

Without adequate amounts of Vitamin D present, increasing your calcium, magnesium, and other trace minerals will offer very little protection against osteoporosis. By far, the best source of Vitamin D is getting out into the sunshine and exposing as much of your skin as possible without sunscreen for ten to fifteen minutes a day. Dietary sources of this nutrient are harder to obtain. You can find Vitamin D in limited amounts in food sources such as egg yolks (free range chickens are the best egg source), oily cold water fish, cod liver oil and D3 fortified milk.

Vitamin D is primarily made in the skin through exposure to sunlight. Many people may be able to obtain enough Vitamin D naturally, although Vitamin D production decreases in the elderly, in people who are housebound and in the general population during the winter. Depending upon your situation, you may need to take Vitamin D supplements to ensure a daily intake of between 400 to 800 IU

(international units). In winter months, supplementation may be advisable and can be determined through a sim-

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ple blood test.

Like cholesterol, triglycerides and blood sugar, the blood test that determines Vitamin D levels in your body should be performed as part of a routine physical to identify if you have sufficient levels of Vitamin D. Being proactive about this testing may prevent you from ever being diagnosed with bone density loss. If you have bone density loss and low Vitamin D levels, raising your levels may improve your bone health.

After Vitamin D deficiency, calcium is the next leading nutrient that is lacking in our potentially osteoporotic population.

Approximately 44 percent of the American population is estimated to be calcium deficient with many consuming less than 50 percent of the calcium recommended to build and maintain healthy bones. Good sources of calcium include dark green leafy vegetables, sardines, salmon, tofu, almonds, dairy and fortified foods. All calcium supplements are not created equal. If your supplement is calcium carbonate, it is basically chalk, which is not particularly bioavailable. You are much better off supplementing with calcium citrate or calcium lactate.

Soda consumption is extremely detrimental to bone health. Approximately one hour after drinking a soda, the soda's phosphoric acid will have bound to the calcium, magnesium and zinc found in your lower intestine. This action will increase urinary excretion of all three minerals. All the calcium, magnesium and zinc that should have supported and strengthened your bones are then effectively leached out of your body by your favorite beverage. The American Journal of Clinical Nutrition recently published a study from Tufts University researcher, Katherine Tucker. It concluded that women who drink four eight-ounce cola beverages (or more) a week have a lower bone mineral density and a higher risk of developing osteoporosis.

Magnesium, an undervalued mineral, is also required for the prevention of osteoporosis and osteopenia. It is estimated that approximately 37percent of the American population is magnesium deficient. A shortage of either calcium or magnesium will reduce the effectiveness of the other. Lack of dietary magnesium will limit new bone growth and prevent strengthening of bone. Magnesium is found in chocolate (dark semi-sweet), nuts, seeds and deep, dark, leafy greens. If you regularly consume these foods you may not need extra magnesium.

Non-nutritional ways of preventing osteopenia and osteoporosis include avoiding smoking and alcohol consumption (both of which will cause you to absorb less calcium and magnesium) and getting plenty of regular weight bearing exercise. Bone is a living tissue, strengthened by exercise – this is especially important in children, teens and young adults who are trying to lay down the maximum bone density they will have for life. Good bone strengthening exercises include walking, hiking, jogging, stair climbing, weight training, tennis and dancing.



Pictured from left to right: Vicky (massage therapist), Dr. Lisa Patt, Dr. Erik Brown, Dr. Jenny Crosby, Brandon (Therapy CA), Michelle (Front Desk CA), Teresa (Office Manager)

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