

Can a Healthy Diet Treat Osteoporosis?

What is osteoporosis?

Osteoporosis is a thinning of bone tissue and a loss of bone density over time. It occurs when the body doesn't form new bone, or when old bone is reabsorbed by the body in large amounts. Osteoporosis is the most common type of bone disease.

Who is at risk for osteoporosis?

Women get osteoporosis more than men, probably because they have smaller bones. Those who are thin, have poor diets, who smoke or drink excess caffeine or alcohol are at greatest risk. Caucasian and Asian women are at greater risk than other races. Bone mass is lost beginning around age 30 and speeds up after a woman reaches menopause, so age is a risk factor for osteoporosis.

What are the symptoms of osteoporosis?

One of the reasons that osteoporosis is so dangerous is that in many cases there are no symptoms until a bone is broken. Before osteoporosis is even diagnosed, a minor impact can cause a serious fracture. Sometimes back pain is a symptom of osteoporosis. With time, compression fractures in the spine can cause a "dowager's hump", or severely humped back.

Can osteoporosis be treated with a healthy diet?

Possibly! The best treatment for osteoporosis is prevention. A healthy diet that contains calcium, vitamin D, and other nutrients is key to osteoporosis prevention. Weight-bearing exercise (to help strengthen the bones), avoiding alcohol and caffeine, and not smoking are also good ways to help prevent osteoporosis. Once osteoporosis is diagnosed, the same recommendations can also help treat it by preserving bone mass.

Why are both calcium and vitamin D important?

Both vitamin D and calcium have many functions in the body. However, they work together to help keep bones healthy. Vitamin D helps promote absorption of the calcium you eat and helps form and maintain strong bones. Eating lots of calcium or taking calcium supplements without vitamin D may not have much benefit to your bone health.

How much calcium do I need?

The Dietary Reference Intakes recommend 1300 milligrams daily for those 9 to 18 years old, 1000 milligrams daily for those 19 to 50, and 1200 milligrams daily for those older than 50. In general eating 2-3 servings of dairy products daily, liberal use of green vegetables, and regular use of calcium-fortified foods like orange juice, soy products, and breakfast cereals can make getting enough calcium easy. For example, one 8-ounce serving of milk or yogurt has about 300

milligrams of calcium A half cup of cooked spinach has 120 milligrams, and 6 ounces of calcium-fortified orange juice has around 200-260 milligrams.

How much vitamin D do I need?

The need for vitamin D increases with age. Those ages 14-50 years old need 200 International Units (IU) or 5 micrograms daily, and ages 51-70 years need 400 IU or 10 micrograms daily. Those over 71 need 600 IU or 15 micrograms daily.

Vitamin D can be found in the diet or can be made in the skin when it is exposed to sunlight. Good food sources include fortified milk, (98 IU's per 8 ounces) and fishes like salmon, mackerel, tuna, and sardines (200-360 IU's per 3 ounce serving). Ten-to-fifteen minutes of sun exposure at least twice weekly (exposure to arms, hands, face, or back without sunscreen) will allow your body to make as much vitamin D as it needs.

What about other vitamins and minerals?

Eating a healthful diet that includes fruits, vegetables, protein sources, dairy foods, and whole-grain breads and cereals will help provide the right amount of all the nutrients needed to treat your osteoporosis. Eating according to the Food Guide Pyramid (www.mypyramid.gov) is a good way to keep your bones as healthy as possible.

Should I take supplements to treat my osteoporosis?

Maybe. Your registered dietitian can look at your eating habits and your medical history and decide if calcium and vitamin D supplements will help you. If your doctor prescribes medicine to increase your bone density or help prevent bone loss, supplements are a good idea. A healthy diet that contains a variety of foods, including good sources of calcium and vitamin D, should be part of your osteoporosis treatment plan.

References:

American Dietetic Association Nutrition Care Manual. Available to subscribers at www.nutritioncaremanual.org.

Medline Plus Medical Encyclopedia: Osteoporosis. Updated 3/13/2006. Available at <http://www.nlm.nih.gov/medlineplus/ency/article/000360.htm>.

National Institutes of Health Office of Dietary Supplements. Dietary Supplement Fact Sheet: Calcium. Updated 9/23/2005. Available at <http://dietary-supplements.info.nih.gov/factsheets/calcium.asp>.

National Institutes of Health Office of Dietary Supplements. Dietary Supplement Fact Sheet: Vitamin D. Updated 8/5/ 2005. Available at http://dietary-supplements.info.nih.gov/factsheets/VitaminD_pf.asp.