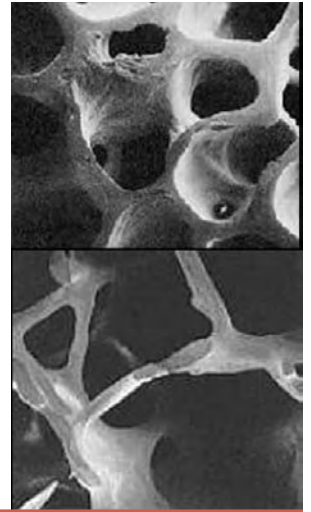


# 10 Ways to Build Stronger Bones & Prevent Osteoporosis

You may think of osteoporosis as a relatively minor bone problem. Or that it only affects women. You'd be wrong on both counts! Osteoporosis is a major health threat to more than 44 million Americans. Research shows that 1 in 2 women and 1 in 4 men over the age of 50 will have an osteoporosis-related fracture.



In the U.S. osteoporosis is responsible for more than 1.5 million fractures of the vertebrae annually. That doesn't include the 300,000 hip fractures, or numerous fractures to the wrists, forearms, feet, and toes. Besides broken bones, osteoporosis can also cause pain, disfigurement, accidental falls, and possibly even death resulting from those falls.

As of today, osteoporosis has no cure, but can be largely prevented – or its severity minimized – with early intervention. Here are 9 easy ways that you can help your bones get strong, and stay strong:

1

## Consume adequate amounts of calcium.

One of the most important nutrients for bone health is calcium. Aim to get at least 2 good sources of calcium daily. Females in their early 20s and younger should get at least 3 servings of foods high in calcium daily. Good sources of calcium include:

- Calcium fortified foods such as soymilk, orange juice, and fortified breads and cereals
- Milk, yogurt, and other dairy products
- Calcium supplements, which should be taken with meals

### Calcium Recommended Daily Amounts

Life stage	mg/day
Teens	1,300
Adults 20-50	1,000
Adults 50 or older	1,200

Source: National Academy of Sciences Food and Nutrition Board. 1997. (latest values)

2

## Make B-vitamins a part of your diet.

Research shows that folic acid (a B-vitamin) and vitamin B-12 also help build stronger bones. People over the age of 50 may want to consider taking a vitamin B-12 and folic acid supplement if they are at high risk for osteoporosis.

3

## Consume adequate amounts of protein.

Did you know that protein is the primary structure of bone? To maintain strong bones, it is important that you include protein in your diet, especially protein from plant sources.

Choosing more vegetable proteins in place of animal proteins decreases calcium loss. Try eating lentils, beans, tofu, and other vegetable proteins daily. Fresh fruits and vegetables are also protective to the bones, and they limit calcium loss from the body.

*Eat lots of them!*

4

## Make time in your day for exercise.

Exercise can help your bones remain healthy and strong. One study found that women who walked for 30 to 45 minutes a day cut their risk of hip fracture in half.

Bones need the stimulation of weight-bearing exercises such as walking, jogging, stair climbing, tennis, weight training, and dancing to stay strong. If you are currently sedentary, start a walking program today. Don't be intimidated – you don't need expensive equipment or to walk 10,000 steps a day. Begin with 3 times a week and work up to walking all or most days of the week. It's never too late to start exercising your way to stronger bones, but do remember to see your doctor before starting your exercise program if you have physical limitations or health problems.



5

**Get adequate amounts of vitamins K and D.**

Adequate vitamin K and vitamin D are also important for bone health. Vitamin K is abundant in dark, leafy greens, Brussels sprouts, broccoli, spinach, lettuce, kale, cabbage, cauliflower, and carrots. In the Nurses' Health Study, women eating 250 micrograms of vitamin K daily had the lowest fracture rate – half that of women with a low intake (60 mcg per day). Eating fresh fruits and vegetables is not only good sources of vitamins and minerals, but plant foods decrease calcium loss from bones. Ten to 15 minutes of sun exposure daily to the face, arms, hands, or back without sunscreen is usually sufficient to provide adequate vitamin D. You can also supplement your diet – especially important in the winter – by adding foods fortified with vitamin D, such as milk and cereal.

Food	Vitamin K mcg
Spinach, ½ C cooked	444
Collards, ½ C cooked	418
Brussel sprouts, ½ C	109
Coleslaw, 1 C	75
Broccoli, 1 5"-spear	52
Romaine lettuce, ½ C	48
Iceberg lettuce, 1 C	17

Source: *USDA Nutrient Database and National Academy of Sciences.*

6

**Avoid alcohol and tobacco use.**

As you probably know, just about all health experts recommend you don't smoke. What you might not know is that smoking damages the cells that lay down calcium in the bones. A high alcohol intake also lowers bone calcium levels and increases the risk of falls. Therefore, alcohol consumption ought to be limited, or avoided altogether.

7

**Maintain a healthy blood pressure.**

Healthy blood pressure (120/80 or lower) is associated with normal kidney function. The kidneys play an important part in both calcium and vitamin D metabolism necessary for strong bones. Research shows that high blood pressure (140/90 and above) is also linked to bone-mineral loss, which robs your bones of the materials they need to remain strong. The good news is that exercise and good eating habits (lots of fruits and vegetables) will help to lower your blood pressure naturally.



8

**Limit salt, retinol, and caffeine intake.**

Retinol is a form of vitamin A that comes from animal sources – primarily milk, butter, and liver – and is also added to many foods including margarine, breakfast cereals, skim milk, cheese, and vitamin supplements (the major cause of excess intake). A high intake of retinol – which is 1,500 micrograms or more daily (the recommended daily allowance is 700 mcg per day) – increases the risk of hip fracture. Vitamin A from beta-carotene does not increase risk of osteoporosis. Good sources of beta-carotene include dark yellow or orange fruits and vegetables, and leafy greens. Salt, which includes sodium, can raise blood pressure and may also increase the calcium that is excreted from the body. Health experts suggest that you use salt in moderation. Similarly, researchers have found that caffeine may also increase the amount of calcium excreted from the body, contributing to bone-mineral loss. Studies suggest consuming no more than 1 or 2 servings of caffeinated drinks each day.



9

**Maintain a healthy weight.**

If you fall below the recommended weight range for your age and height, you are at an increased risk of developing osteoporosis. If you are very lean, you might be at high risk. Be sure to limit all other risk factors.



10

**See your doctor.** Women 65 years and older should ask their doctor if they need a bone scan to screen for osteoporosis. If present, there are medications that can help reduce risk before fractures occur.

**Weak bones and osteoporosis need not be a natural part of aging. Take preventive steps now to build strong, healthy bones.**

**Sources:**

1. National Institutes of Health. *Calcium and Vitamin D Supplements Offer Modest Bone Improvements, No Benefits for Colorectal Cancer* [press release]. February 15, 2006.
2. National Institutes of Health. *Smoking and Bone Health*. April 2005.

