



# What **you** should know about osteoporosis

## What is osteoporosis?

**O**steoporosis is a disease that weakens the bones, increasing the risk of fractures—especially in the hip, spine, and wrist. This year, osteoporosis will affect 10 million Americans, most of them women. The good news is that it is treatable and, with a few lifestyle changes, preventable.

## Why are women at risk?

**T**he biggest culprit is estrogen deficiency. Generally speaking, as women age they produce less estrogen—a female hormone made by the body for sexual development and menstrual regulation. This loss is most severe after menopause. Less estrogen leads to a loss of bone mass.

## Am I at risk?

**R**isk factors for osteoporosis include advanced age, a family history of the disease, and the long-term use of certain medications, such as steroids and anticoagulants. Caucasian and Asian women are most likely to suffer from extensive bone loss, as are women who get less than 300 mg of calcium (that's 1 glass of milk) a day and have low vitamin D intake. Other risk factors include tobacco use, high alcohol and caffeine consumption (more than 2 cups a day), low body weight, and little or no physical inactivity.

## Can I prevent osteoporosis?

**T**o preserve bone mass, it's important to include both calcium and vitamin D in your diet. Vitamin D helps your body absorb calcium: It allows calcium to enter the bloodstream and works in the kidneys to reabsorb calcium that otherwise would be excreted. Women should have 1,000 to



**Close-up of unhealthy bone.** The extra space within the bone makes it more prone to fracture.



**Close-up of healthy bone.** Less space indicates a higher bone density, which means the bone is strong.

1,200 mg of calcium and 400 to 800 international units (IU) of vitamin D per day. While many calcium supplements contain vitamin D, you also can get this nutrient from a variety of different foods (see Box). Beware, though, that consuming too much salt, caffeine, and protein can cause you to lose calcium through your urine.

In addition, exercising 5 times a week for at least 30 minutes helps reduce bone loss. Weight-bearing exercises such as walking, jogging, climbing stairs, dancing, and playing tennis not only improve strength, they also increase your agility and balance, reducing your risk of falling. Weight lifting can improve muscle mass and bone strength.

Also avoid smoking tobacco and consuming large amounts of alcohol.

## Are there tests for osteoporosis?

**I**f you think you may be at risk for osteoporosis, talk to your health-care provider. The physician will begin with a physical examination. He or she will also likely check for bone tenderness, and may perform a bone mineral density (called BMD) test to determine your bone mass. One of

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### Sources of calcium and vitamin D

**Calcium.** You need 1,000 to 1,200 mg of calcium each day. If you're unable to get enough calcium in your diet, ask your doctor to recommend a supplement.

- Skim milk (1 cup = 302 mg)
- American cheese (1 oz = 175 mg)
- Yogurt (1 cup = 415 mg)
- Ice cream (1/2 cup = 90 mg)
- Broccoli (1 cup = 136 mg)
- Collards (1 cup = 357 mg)
- Tofu with calcium sulfate (4 oz = 250 to 370 mg)
- Sardines (3 oz = 370 mg)
- Turnip greens (1 cup = 200 mg)
- Bok choy (1 cup = 160 mg)

**Vitamin D.** Vitamin D helps your body absorb calcium. Most multivitamins provide about 400 international units (IU) of vitamin D. Here are other ways you can get 400 to 800 IU each day:

- Sunlight: Ten to 15 minutes of sun exposure to bare skin 2 to 3 times a week
- Fortified milk (1 cup = 100 IU)
- Fortified cereal (1 cup = 40 to 50 IU)
- Egg yolks (1 yolk = 25 IU)
- Shrimp (3 oz = 90 IU)
- Salmon (3 oz = 425 IU)
- Sardines (3 oz = 255 IU)
- Herring (3 oz = 765 IU)
- Cod liver fish oils (1 tablespoon = 1,360 IU)

the most common is called dual-energy x-ray absorptiometry (or "DEXA"). For this test, you will lie on a table while a scanner is passed slowly over your body. It takes 2 to 5 minutes.

Other studies, including tests of your urine and blood, may be conducted to rule out diseases that cause osteoporosis.

If you're over 65, you should have a BMD test. Your physician may suggest additional tests to determine how fast your bone density is changing. A BMD test is also recommended for women under age 65 who have already gone through menopause and have 1 or more risk factors for osteoporosis. All women past menopause who suffer a fracture also should be tested.

### How is osteoporosis treated?

Currently, there are 4 medications prescribed for treatment and prevention:

- Bisphosphonates (Fosamax, Actonel) inhibit the breakdown of bone and slow the loss of bone mass, while increasing bone density. These

agents can reduce the risk of vertebral, spine, and hip fractures by 50%.

- Calcitonin (Miacalcin, Calcimar) increases the bone density of your spine and slows bone loss. It's for women who are at least 5 years past menopause and not taking estrogen.
- Selective estrogen receptor modulators (Raloxifene) are used for the prevention and treatment of postmenopausal osteoporosis. They appear to prevent bone loss in such fracture-prone areas as the hip and spine, as well as the rest of the body, and increase BMD.
- Hormone replacement therapy is a treatment in which estrogen is taken alone or with another female hormone (progesterone). It can reduce bone loss, increase bone density in the hip and spine, and reduce the risk of fractures in women who've gone through menopause.

To find out if 1 of these medications is right for you, speak with your doctor about your medical needs. ■