Osteoporosis

Osteoporosis is the most common bone disease and is twice as common in women as in men.

People with osteoporosis have thinning of their bones, causing their bones to become fragile and to **fracture** (break) easily. Most people do not know they have osteoporosis until they fall and break a bone, usually their spine, wrist, or hip. However, you can find out if you have osteoporosis by having your **bone mineral density** (**BMD**) measured.

Osteoporosis is a serious disease. Half of women past menopause and older than 50 years will have a fracture due to osteoporosis. Hip fractures are a major cause of disability among older people. Women also may become disabled from kyphosis (a "dowager's hump").

Testing and Diagnosis

Bone mineral density is measured with a low-cost, low-risk **DEXA** (bone) scan. Because age is also a major factor in risk of breaking a bone, it is important to consider both BMD and age when deciding how often to be tested. Your doctor can use an online tool called a FRAX calculator to help with this treatment decision.

Results of BMD measurement can show if a person has either **osteopenia** (mild low bone density) or osteoporosis (severe low bone density).

Prevention and Treatment

There are many causes of osteoporosis. Some cannot be controlled or changed. These include

- Aging
- Family history
- White or Asian race
- Confinement to bed
- Certain diseases or medications

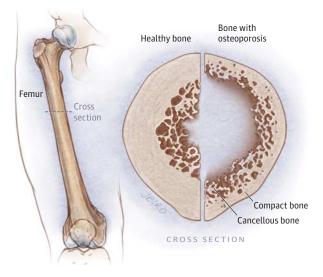
However, lifestyle changes that help you stay healthy in general can also help protect you from developing osteoporosis, including

- Limiting alcohol
- Not smoking cigarettes
- Eating foods with plenty of calcium and vitamin D, including dairy products, kale, broccoli, canned salmon, and sardines
- Regular weight-bearing exercise such as walking, dancing, or climbing stairs
- Eating enough to avoid being underweight

Doctors may prescribe medication for osteoporosis, in pill form or given as a shot. All medications may have side effects, some of which can be bothersome. However, medications can prevent about half of fractures in people who have osteoporosis. Most people with osteopenia need to develop good health habits and have follow-up appointments but do not need prescription medicine.

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Supplements

The National Institutes of Health is funding studies to determine the best kind of vitamin D and calcium supplements. Current vitamin D recommendations for adults are at least 600 units per day for people aged 70 years or younger and at least 800 units per day for those older than 70 years. A total calcium intake of 1200 mg per day is recommended, with as much as possible coming from food.

FOR MORE INFORMATION

- National Institutes of Health
 nihseniorhealth.gov/osteoporosis/whatisosteoporosis/01.html
- US Preventive Services Task Force
 www.uspreventiveservicestaskforce.org/uspstf12/vitamind
 /finalrecvitd.htm
- National Osteoporosis Foundation www.nof.org
- To find this and previous JAMA Patient Pages, go to the Patient Page link on JAMA's website at jama.com. Many are available in English and Spanish.

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