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Osteoporosis

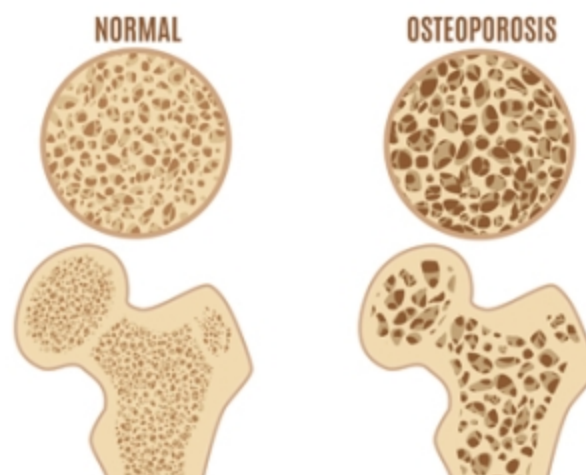
On this page:

- [Who is at risk for osteoporosis?](#)
- [How is osteoporosis diagnosed?](#)
- [How is osteoporosis treated?](#)
- [How can I keep my bones strong as I age?](#)

Osteoporosis weakens bones to the point that they can break easily. It is called a “silent disease” because people who develop it may not notice any changes until a bone breaks — usually a bone in the hip, spine, or wrist.

Bones are made of living tissue. To keep them strong, a healthy human body breaks down old bone and replaces it with new bone. Osteoporosis develops when more bone is broken down than replaced.

The inside of a bone looks something like a honeycomb. When someone has osteoporosis, the bone, which forms the “walls” of the honeycomb, get smaller, and the spaces between the bone grow larger. The outer shell of the bone also gets thinner. All of this makes a bone weaker.



In serious cases of osteoporosis, a simple motion such as a cough or minor bump can result in a broken bone, also called a fracture. People with osteoporosis also have a harder time recovering from broken bones, which can sometimes cause pain that does not go away. Broken hip and spine bones are especially serious, as these injuries can cause older adults to lose their mobility and independence.

Who is at risk for osteoporosis?

While people of all races and ethnic groups can develop osteoporosis, certain groups are more likely to develop the disease. Osteoporosis affects about one in five women over age 50, but only one in 20 men. Among women, those of White and Asian descent are more likely to develop osteoporosis. Other risk factors for osteoporosis include:

- A family history of broken bones or osteoporosis

- History of a broken bone after age 50
- Previous surgery to remove the ovaries before menstruation periods stopped naturally
- Poor dietary habits, including insufficient amounts of [calcium and/or vitamin D](#) or protein
- Physical inactivity or prolonged periods of bedrest
- Smoking cigarettes
- Heavy use of [alcohol](#)
- Long-term use of certain [medications](#), such as corticosteroids, proton pump inhibitors, and antiepileptic medications
- Altered levels of hormones, such as too much thyroid hormone, too little estrogen in women, or too little testosterone in men.
- Low body mass index or underweight

The risk of developing osteoporosis increases as people grow older. At the time of [menopause](#), women may lose bone mass quickly for several years. After that, the loss slows down but continues. In men, the loss of bone mass is slower. By age 65 or 70, men and women lose bone mass at the same rate.



[Read and share this infographic](#) about staying healthy during and after menopause.

How is osteoporosis diagnosed?

Osteoporosis rarely has any symptoms. In fact, some people may not notice any changes until a minor bump or fall causes a bone to break. Don't wait for a potential accident to determine if you have osteoporosis.

If you are a woman over age 65, the [U.S. Preventive Services Task Force](#) recommends that you get tested for osteoporosis. Women younger than 65 who are at greater risk should also get tested. The task force does not recommend regular screening for men. Men lose bone density more slowly than women but should still be aware of the possibility of developing osteoporosis. Older men who break a bone easily or who are at risk for osteoporosis should [talk with their doctor](#) about testing and treatment.



Health care providers can measure how strong bones are with a bone density scan. This test compares a person's bone density to the bones of an average healthy young adult. The test result, known as a T-score, indicates whether a person has osteoporosis or osteopenia, which is low bone density that's not as severe as osteoporosis. Your doctor may also use other screening tools, including questionnaires, physical exams, and ultrasounds, to predict your risk of having low bone density or breaking a bone.

How is osteoporosis treated?

Treating osteoporosis means slowing or stopping the bone loss to prevent breaks. If your test results show that you have osteoporosis or bone density below a certain level and you have other risk factors for fractures, your doctor may recommend lifestyle changes and medications to lower your chances of breaking a bone.

The same healthy lifestyle choices that help prevent osteoporosis can be used to treat it. These include exercising regularly and eating a healthy diet. However, lifestyle changes may not be enough if you have lost a lot of bone density. There are also [several medications](#) to consider. Some can slow your bone loss and others can help rebuild bone.

Medications that slow down bone loss include bisphosphonates, calcitonin, RANKL blockers, estrogen, and drugs that change how estrogen acts in the body.

Medications that help rebuild bone include a synthetic version of the parathyroid hormone and drugs that inhibit a protein called sclerostin.

[Talk with your doctor](#) to see if there is a medication that can help you manage your osteoporosis.

In addition to managing your osteoporosis, it's important to avoid activities that may cause a fracture. Such activities include movements that involve twisting your spine, like swinging a golf club, or bending forward from the waist, like sit ups and toe touches.

You can also help reduce the risk of breaking a bone by preventing falls. For individuals with weakened bones, falling is more likely to cause a fracture. Additionally, broken bones in people with osteoporosis may not heal properly and could cause persistent pain, leading to a loss of mobility and independence.

Tips to prevent falling

If you have osteoporosis or osteopenia, a simple fall can cause a broken bone. This can mean not only a trip to the hospital but also possibly being bedridden for a long period of time, especially in the case of a hip fracture.



[Read and share this infographic](#) and help spread the word about how to help prevent falls.

Strive to [prevent falls](#), starting with these tips:

- Exercise to improve your strength and balance.
- Stand up slowly and use a cane or walker if that helps you feel steadier.
- Install night lights and grab bars in your bathroom.
- Be extra careful using stairs during inclement weather.

Learn more about changes you can make [in your home](#) to prevent falls

How can I keep my bones strong as I age?

There are things you can do at any age to prevent weakened bones. Here are some tips:

- **Eat foods that support bone health.** Get enough [calcium, vitamin D](#), and protein each day. Low-fat dairy; leafy green vegetables; fish; and fortified juices, milk, and grains are good sources of calcium. If your vitamin D level is low, talk with your doctor about taking a [supplement](#).
- **Get active.** Choose [weight-bearing exercise](#), such as strength training, walking, hiking, jogging, climbing stairs, tennis, and dancing. This type of physical activity can help build and strengthen your bones.
- **Don't smoke.** Smoking increases your risk of weakened bones. If you do smoke, here are tips for [how to quit smoking](#).
- **Limit alcohol consumption.** Too much alcohol can harm your bones. Drink in moderation or not at all. Learn more about [alcohol and aging](#).

You may also be interested in

- Learning [ways to help prevent falls and fractures in older adults](#)
- Reading more about [exercising with chronic health conditions](#)
- Exploring the [real-life benefits of physical activity](#)

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For more information on osteoporosis

National Institute of Arthritis and Musculoskeletal and Skin Diseases

877-226-4267

301-565-2966 (TTY)

niamsinfo@mail.nih.gov

www.niams.nih.gov

Bone Health & Osteoporosis Foundation

800-231-4222

info@bonehealthandosteoporosis.org

www.bonehealthandosteoporosis.org

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