

Osteoporosis

Osteoporosis is a loss in bone mass and bone strength. Bones become less dense. This makes them weak and easier to break. Any bone can be affected. The hips, wrists, and spine are the most common sites. Peak bone mass is reached between the ages of 25 and 35. After age 35, bone mass starts to drop.

Signs and Symptoms

Osteoporosis is a “silent disease.” It can progress without any noticeable signs or symptoms. Often, the first sign is a fracture of the hip, wrist, or spine. When signs and symptoms occur, they include:

- Gradual loss of height.
- Rounding of the shoulders.
- Sudden back pain.
- Stooped posture.
- “Dowager’s hump.”

Causes and Risk Factors

Osteoporosis occurs when new bone does not replace old bone fast enough.

Risk Factors Include:

- Being female. Women are 4 times more likely to develop osteoporosis than men. Why?
 - Their bones are thinner and lighter.
 - They live longer on average than men.
 - They have rapid bone loss at menopause due to a sharp decline of estrogen. The risk also increases for women who:
 - Go through menopause before age 45. This could be natural menopause or one that results from surgery which removes both ovaries.
 - Experience a lack of or irregular menstrual flow.

- Having a thin, small framed body.
- Being Caucasian or Asian. African Americans and Hispanic Americans are at a risk, too.
- Lack of physical activity, especially walking, running, tennis, and other weight-bearing exercises.
- Long-term bed rest.
- Exercising too much to the point where menstrual periods cease.
- Low calcium and vitamin D intake or absorption.
- Family history of osteoporosis and/or bone fractures.
- Smoking cigarettes.
- Drinking too much alcohol, which may damage bones. Heavy drinkers often eat poorly, too. They are also more prone to fractures from falls.
- Taking certain medicines for a long time. Examples are: Corticosteroids; some antiseizure medicines; overuse of thyroid hormones; and antacids with aluminum.
- Having certain health problems, such as anorexia nervosa, an over-active thyroid gland, or rheumatoid arthritis.
- Persons with Crohn’s disease, ulcerative colitis, and celiac disease are at risk, too.



Treatment

There is no cure for osteoporosis. The focus of treatment is to prevent the disease, to prevent further bone loss, and build new bone.

Special X-rays, such as one known as DEXA, can measure bone density in various sites of the body. These tests can help doctors decide if and what kind of treatment is needed. Treatment includes:

- Medications. There are different kinds. Your doctor will prescribe one(s) best suited for your needs.
- A balanced diet rich in calcium and vitamin D and taking supplements of these, as needed.
- Exercises, as advised by your doctor.
- Proper posture.
- Fall prevention measures:
 - Wear flat, sturdy, non-skid shoes.
 - Get regular vision exams. Wear corrective glasses, etc., as needed.
 - Ask your doctor if any medications you take could increase the risk of falls. Ask how to deal with this. Let your doctor know if your medicine(s) affect your vision, balance, etc.
 - Use grab bars and safety mats or nonskid tape in your tub and shower.
 - Use handrails on stairways.
 - Pick things up by bending your knees and keeping your back straight. Don't stoop.
 - Use a cane or walker if necessary.



Use a grab bar in the tub and shower.

- If you use throw rugs, use ones with nonskid backs.
- See that halls, stairways, and entrances are well lit. Use night lights in hallways, bathrooms, etc.
- Stay home if it is icy or slippery outside.

Questions to Ask

After a fall, are you not able to get up or do you have wrist, hip, or back pain?

YES



Get Medical Care Fast

NO

Do you have **signs and symptoms of osteoporosis** listed on previous page? Do you want to find out about medicines to prevent and/or treat osteoporosis?

YES



See Doctor

NO

Are you a female age 65 or older and have you not had a bone mineral density test?

YES



Call Doctor

NO

Are you a female between ages 60 and 65, do you have risk factors for osteoporosis listed on previous page, and have you not had a bone mineral density test?

YES



Call Doctor

NO

If you have osteoporosis and take medicine for it, are you having side effects from the medicine?

YES



Call Doctor

NO



Use Self-Care

See Self-Care / Prevention on next page

Self-Care / Prevention

To Treat Osteoporosis

- Take medications, as prescribed.
- Do the daily exercises approved by your doctor.
- Practice good posture.

To Treat, Slow, and Prevent Osteoporosis

- Eat a balanced diet.
- Get your daily calcium need.

Daily Needs for Calcium*	
Ages	Milligrams (Mgs.) Calcium/Day
9-18 years	1,300
19-50 years	1,000
51+ years	1,200
Pregnant and breast-feeding women:	
14-18 years	1,300
19+ years	1,000

Source: The Institute of Medicine (IOM).

*Follow your doctor's advice for calcium.

Choose High Calcium Foods Daily

- Skim and low-fat milks, yogurts, and cheeses.
{*Note:* If you are lactose intolerant, you may need to use dairy products that are treated with the enzyme lactase or you can add this enzyme using over-the-counter drops or tablets.}
- Soy milks and yogurts with added calcium.
- Soft-boned fish and shellfish, such as cod, salmon, sardines, and shrimp.
- Vegetables, especially broccoli, kale, and collards.
- Beans and bean sprouts, as well as tofu (soy bean curd), if processed with calcium.
- Calcium-fortified foods, such as some orange juices, apple juices, and ready-to-eat cereals.
- Take calcium supplements, as advised by your doctor.

Get Your Recommended Daily Need for Vitamin D.

Daily Needs for Vitamin D*	
Ages	International Units (UIs)
1-70 years	600
>70 years	800

* Source: Institute of Medicine (IOM). The National Osteoporosis Foundation advises 400-800 IU's for adults under age 50 years; 800-1,000 IU's for adults age 50 years and older.

* Follow your doctor's advice for vitamin D.

- Choose nonfat and low-fat dairy products that are fortified with vitamin D, saltwater fish, liver, and egg yolks. You also get vitamin D from direct exposure of sunlight on your skin. Fifteen minutes of midday sun exposure (without sunscreen) *may* meet the daily need.
- Take vitamin D supplements, as advised by your doctor. The best source of vitamin D for bone health is vitamin D3.
- Do regular, weight-bearing exercises at least 3 or 4 times a week. Examples are walking and low-impact or non-impact aerobics. (If you have osteoporosis, follow the exercise program outlined by your doctor.)
- Do not smoke.
- Limit alcohol.
- Use fall prevention measures listed on previous page.



Walk or do other weight-bearing exercises.

For Information, Contact:

National Osteoporosis Foundation
www.nof.org