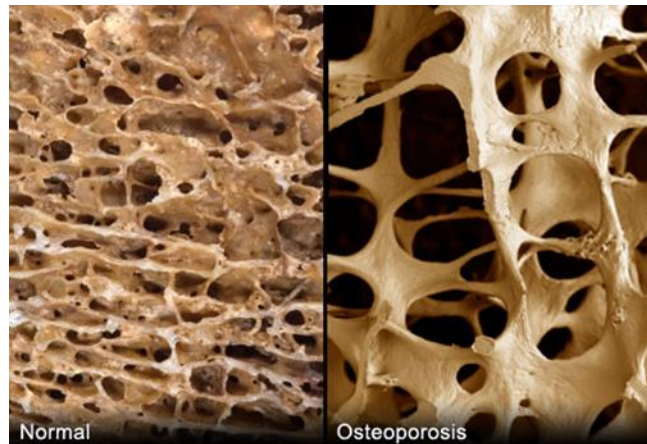


Osteoporosis causes bones to become weak and brittle — so brittle that a fall or even mild stresses like bending over or coughing can cause a fracture. Osteoporosis-related fractures most commonly occur in the hip, wrist or spine.

Bone is living tissue, which is constantly being absorbed and replaced. Osteoporosis occurs when the creation of new bone doesn't keep up with the removal of old bone.

Osteoporosis affects men and women of all races. But white and Asian women — especially those who are past menopause — are at highest risk. Medications, dietary supplements and weight-bearing exercise can help strengthen your bones.



Symptoms

In the early stages of bone loss, you usually have no pain or other symptoms. But once bones have been weakened by osteoporosis, you may have osteoporosis signs and symptoms that include:

- Back pain, caused by a fractured or collapsed vertebra
- Loss of height over time
- A stooped posture
- A bone fracture that occurs much more easily than expected

You may want to talk to your doctor about osteoporosis if you've:

- Gone through early menopause
- Experienced a loss of height
- Had a bone break much more easily than expected
- Taken corticosteroids for a lengthy period of time
- Got a family history of osteoporosis

Risk Factors

Unchangeable risks

Some risk factors for osteoporosis are out of your control, including:

- **Your sex.** Women are much more likely to develop osteoporosis than are men.
- **Age.** The older you get, the greater your risk of osteoporosis.

- **Race.** You're at greatest risk of osteoporosis if you're white or of Asian descent.
- **Family history.** Having a parent or sibling with osteoporosis puts you at greater risk, especially if you also have a family history of fractures.
- **Frame size.** Men and women who have small body frames tend to have a higher risk because they may have less bone mass to draw from as they age.

Hormone levels

Osteoporosis is more common in people who have too much or too little of certain hormones in their bodies.

Examples include:

- **Sex hormones.** The reduction of estrogen levels at menopause is one of the strongest risk factors for developing osteoporosis. Women may also experience a decrease in estrogen during certain cancer treatments. Men experience a gradual reduction in testosterone levels as they age. And some treatments for prostate cancer reduce testosterone levels in men. Lowered sex hormone levels tend to weaken bone.
- **Thyroid problems.** Too much thyroid hormone can cause bone loss. This can occur if your thyroid is overactive or if you take too much thyroid hormone medication to treat an underactive thyroid.
- **Other glands.** Osteoporosis has also been associated with overactive parathyroid and adrenal glands.

Dietary factors

Osteoporosis is more likely to occur in people who have:

- **Low calcium intake.** A lifelong lack of calcium plays a major role in the development of osteoporosis.
- **Eating disorders.** People who have anorexia are at higher risk of osteoporosis.
- **Weight-loss surgery.** A reduction in the size of your stomach or a bypass of part of the intestine limits the amount of surface area available to absorb nutrients, including calcium.

Steroids and other medications

Long-term use of corticosteroid medications, such as prednisone and cortisone, interfere with the bone-rebuilding process. Osteoporosis has also been associated with medications used to combat or prevent:

- Seizures
- Depression
- Gastric reflux
- Cancer
- Transplant rejection

Lifestyle choices

- **Sedentary lifestyle.**
- **Excessive alcohol consumption.** Regular consumption of more than two alcoholic drinks a day increases your risk of osteoporosis
- **Tobacco use.** The exact role tobacco plays in osteoporosis isn't clearly understood, but researchers do know that tobacco use contributes to weak bones.

Know your Bone Health

DXA Bone Density Scan should be done if:

- You are over 50 and have had a broken bone
- You are a woman 65 yrs. and over or a man 70 yrs. and over
- You are in menopause or past
- You are a man with risk factors



Complications

Bone fractures, particularly in the spine or hip, are the most serious complication of osteoporosis. Hip fractures often result from a fall and can result in disability and even death from postoperative complications, especially in older adults.

In some cases, spinal fractures can occur even if you haven't fallen. The bones that make up your spine (vertebrae) can weaken to the point that they may crumple, which can result in back pain, lost height and a hunched forward posture.

Treatments

Bisphosphonates

For both men and women, the most widely prescribed osteoporosis medications are bisphosphonates. Examples include: Alendronate (Fosamax), Risedronate (Actonel, Atelvia), Ibandronate (Boniva), Zoledronic acid (Reclast, Zometa)

Hormone-related therapy

Estrogen, especially when started soon after menopause, can help maintain bone density. However, estrogen therapy can increase a woman's risk of blood clots, endometrial cancer, breast cancer and possibly heart disease.

Raloxifene (Evista) mimics estrogen's beneficial effects on bone density in postmenopausal women, without some of the risks associated with estrogen. Taking this drug may also reduce the risk of some types of breast cancer. Hot flashes are a common side effect. Raloxifene also may increase your risk of blood clots.

In men, osteoporosis may be linked with a gradual age-related decline in testosterone levels. Testosterone replacement therapy can help increase bone density.

Lifestyle Changes

These suggestions may help reduce your risk of developing osteoporosis or experiencing broken bones:

- **Don't smoke.**
- **Avoid excessive alcohol.**



- **Prevent falls.** Wear low-heeled shoes with nonslip soles and check your house for electrical cords, area rugs and slippery surfaces that might cause you to trip or fall. Keep rooms brightly lit, install grab bars just inside and outside your shower door, and make sure you can get in and out of your bed easily.

Prevention

Three factors essential for keeping your bones healthy throughout your life are:

Adequate amounts of calcium

Men and women between the ages of 18 and 50 need 1,000 milligrams of calcium a day. This daily amount increases to 1,200 milligrams when women turn 50 and men turn 70. Good sources include:

- Low-fat dairy products
- Dark green leafy vegetables
- Canned salmon or sardines with bones
- Soy products, such as tofu
- Calcium-fortified cereals and orange juice
- If you find it difficult to get enough calcium from your diet, consider taking calcium supplements. The Institute of Medicine recommends taking no more than 2,000 to 2,500 milligrams of calcium daily.



Adequate amounts of vitamin D

Vitamin D is necessary for your body to absorb calcium. Many people get adequate amounts of vitamin D from sunlight, but this may not be a good source if you live in high latitudes, if you're housebound, or if you regularly use sunscreen or you avoid the sun entirely because of the risk of skin cancer.

Scientists don't yet know the optimal daily dose of vitamin D. A good starting point for adults is 600 to 800 international units (IU) a day, through food or supplements.

Regular exercise

Exercise can help you build strong bones and slow bone loss. Exercise will benefit your bones no matter when you start, but you'll gain the most benefits if you start exercising regularly when you're young and continue to exercise throughout your life.

Combine strength training exercises with weight-bearing exercises. Strength training helps strengthen muscles and bones in your arms and upper spine, and weight-bearing exercises — such as walking, jogging, running, stair climbing, skipping rope, skiing and impact-producing sports — mainly affect the bones in your legs, hips and lower spine.

Swimming, cycling and exercising on machines such as elliptical trainers can provide a good cardiovascular workout, but because such exercises are low impact, they're not as helpful for improving bone health as weight-bearing exercises are.



If you have any questions about this topic, please reach out to CompassionLink at info@compassionlink.org. We will be happy to answer your questions.

Sources:

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