ACOG
The American College of Obstetricians and Gynecologists

FAQs

Osteoporosis

Frequently Asked Questions

Overview

What is osteoporosis?

Osteoporosis is a condition in which the bones become thin, brittle, and weak. These changes can increase the risk of fractures. Fractures can lead to disability. Fractures caused by osteoporosis have been linked to an increased risk of death.

What are the different types of bone?

There are two types of bone:

- Compact bone is found on the outer part of bones and is solid and hard.
- Spongy bone is found inside bones and is filled with tiny holes, just like a sponge.

Each bone in the body contains some of each type.

How does osteoporosis affect the different types of bones?

In osteoporosis, the outside walls of compact bone become thinner, and the holes in spongy bone become larger. This causes the bones to become weaker and more fragile. The first signs of osteoporosis are seen in bones that already have a lot of spongy bone, such as the spine, hip, and wrist.

How Bones Change Throughout Life

How do bones change throughout life?

Bones are constantly changing throughout life. Old bone is removed in a process called resorption. New bone is built in a process called formation.

- During adolescence, bone is formed faster than it is broken down. The amount of bone in the body (sometimes called “bone mass”) reaches its peak during the late teen years.
- During early adulthood, the amount of bone formed is about equal to the amount of bone broken down.
- In midlife, the process begins to reverse. Bone is broken down faster than it is made.

What is the link between osteoporosis and menopause?

Estrogen , a female hormone , plays an important role in bone health. Estrogen is made by the ovaries . Among its other functions, estrogen protects against bone loss.

After menopause , the ovaries produce very little estrogen. This decrease in estrogen triggers a period of rapid bone loss in women that starts 1 year before the final menstrual period and lasts for about 3 years. The natural effects of aging on bones may contribute to this bone loss as well.

Risk Factors and Symptoms

Is osteoporosis more common in women or men?

Osteoporosis occurs four times more often in women than in men.

What are some risk factors for osteoporosis?

Factors that may cause or contribute to osteoporosis and fractures include

- getting older

- family history of hip or spine fracture
- smoking
- alcohol use (more than three drinks per day)
- being underweight, with a body mass index (BMI) less than 20 or weight less than 127 pounds

Can medications increase the risk of osteoporosis?

Yes, certain medications may also increase your risk of osteoporosis. These include

- some types of corticosteroids
- antiseizure medications
- gonadotropin-releasing hormone (GnRH) agonists (used to treat endometriosis and other gynecologic disorders)
- depot medroxyprogesterone acetate (the medication found in the birth control shot)
- some medications used to treat cancer

Can medical conditions increase the risk of osteoporosis?

Yes, some medical conditions have also been linked to an increased risk of osteoporosis. These include

- rheumatoid arthritis (RA)
- diabetes mellitus
- human immunodeficiency virus (HIV)
- acquired immunodeficiency syndrome (AIDS)

What are some symptoms of osteoporosis?

Osteoporosis may not cause any symptoms for decades. But some signs and symptoms develop as the disease progresses.

As the spinal bones (vertebrae) weaken, they can fracture. Fractures in the front part of the spinal bones can cause loss of height or a slight curving of the spine. This type of spinal fracture often causes no pain. Other fractures of the spine can cause pain that travels from the back to the sides of the body.

Screening and Diagnosis

What screening tests can detect osteoporosis?

Routine screening can help catch osteoporosis early. Your health care professional should ask you about your medical history, give you a physical exam, and measure your height.

If you are age 40 or older, you may also be screened using a tool called FRAX. FRAX is a computer program that helps predict your risk of having a fracture within the next 10 years. It uses factors like your age, sex, BMI, smoking, alcohol intake, and medical history to calculate your risk.

Depending on your age and your risk level, you may have a bone mineral density (BMD) test.

What is a bone mineral density test?

In a BMD test, bone density is measured at the heel, spine, hip, hand, or wrist. The most common method for measuring BMD is a DEXA scan (also called a DXA scan).

During a DEXA scan, you lie down for 3 to 10 minutes while a machine scans your body. With this test you are exposed to a small amount of radiation—less than the amount in a normal chest X-ray.

Who should have a bone mineral density test?

Everyone who is 65 and older should have a BMD test. If you are younger than 65 and past menopause, you should have a BMD test if you have a high risk of fractures.

What do bone mineral density test results mean?

After a DEXA scan, a T-score is given for each site measured (usually hip and spine):

- A score of -1 or higher means that you have normal bone density.
- A score of -1 to -2.5 means that you have a low BMD and are at increased risk of osteoporosis.
- A score of -2.5 or lower means that you have osteoporosis.

How often should I have a bone mineral density test?

After your initial BMD test, talk with your health care professional about when you should be tested again. How often you should have your BMD measured depends on your age, the results of your previous DEXA scan, and your individual risk of fracture.

Prevention

How can osteoporosis be prevented?

Lifestyle plays a key role in preventing osteoporosis. Exercise, a healthy diet, and not smoking can help keep your bones strong and healthy throughout your life. Sometimes medication can help prevent osteoporosis.

When is the best time to start taking care of my bones?

It is never too early to start thinking about bone health. Focus on building and keeping as much bone as you can through exercise, good nutrition, and staying healthy. If you are at risk of osteoporosis, these factors are even more important, especially as you approach menopause.

It's also a good idea to

- stop smoking and avoid secondhand smoke
- reduce alcohol intake
- take steps to prevent falls

What can I do to help prevent falls?

Follow these tips for preventing falls:

- Remove throw rugs or use rugs with nonskid backing.
- Eliminate clutter from the floor.
- Move cords and cables away from high-traffic areas.
- Use nonskid wax on hardwood floors.
- Secure indoor carpeting.
- Make sure rooms are well lit and use a night light.
- Use handrails by stairs and in the bathroom.
- Store items at a height that does not require a step stool.
- Check and correct any vision problems.
- Review medications for side effects that may affect balance and stability.

How can exercise help prevent osteoporosis?

Bone is living tissue and exercise helps it grow stronger. Exercise increases bone mass before menopause and slows bone loss after menopause. The Centers for Disease Control and Prevention (CDC) recommends that healthy adults get 150 minutes of exercise a week, which works out to be about 30 minutes on most days of the week.

What types of exercises help prevent osteoporosis and bone fracture?

Different types of exercise can help prevent osteoporosis and improve your health:

- Weight-bearing exercises are activities that are done while standing and that require your muscles and bones to work against gravity. An example is brisk walking. Weight-bearing exercises can help keep bones strong.
- Non-weight-bearing exercises like Tai Chi, yoga, and Pilates can build endurance and improve your balance and posture. This can reduce your risk of falls.
- Strength training is also good for bones. In this type of exercise, muscles and bones are strengthened by resisting against weight, such as your own body, an exercise band, or handheld weights.

If you have questions about exercise, talk with your health care professional or a physical therapist. They can give you advice about an effective and safe exercise program.

How do calcium and vitamin D help build healthy bones?

Calcium is important to building and maintaining healthy bones. Vitamin D helps the body absorb calcium. How much calcium and vitamin D you need depends on your age.

How can I get more calcium?

Many people do not get enough calcium from food. To increase your daily levels of calcium, eat a variety of calcium-rich foods. Three cups of skim milk daily provide about 1,000 mg of calcium. Other dairy foods, such as yogurt and cheese, are also high in calcium. Non-dairy sources of calcium include

- dark, leafy greens
- broccoli
- fortified cereals, breads, and juice
- almonds and sesame seeds
- sardines or anchovies with the bones

How can I get more vitamin D?

You can increase your intake of vitamin D by eating foods fortified with vitamin D. Common foods with high vitamin D include

- fortified milk and breakfast cereal
- fatty fish, such as salmon and mackerel
- fish liver oils
- egg yolks

You can also get vitamin D by being in the sun for 15 minutes a few days a week.

What about calcium and vitamin D supplements?

Calcium and vitamin D supplements are also available. But taking these supplements comes with a small increased risk of kidney stones. If you do not have osteoporosis, are not vitamin D deficient, and have never had a fracture, it's best to get calcium and vitamin D from food instead of supplements. If you have questions about your calcium

and vitamin D intake and whether you need a supplement, talk with your health care professional.

Treatment

How can osteoporosis be treated?

The lifestyle changes used to prevent osteoporosis, including diet changes, exercise, and fall prevention, are also helpful when treating osteoporosis after it is diagnosed. Various medications are also used to treat osteoporosis and help reduce the risk of fractures. In some cases, you may be referred to a doctor who specializes in treating osteoporosis.

What should I know about medications to treat osteoporosis?

Osteoporosis medications differ in how they work, how they are taken, and how often they are taken. They can be given by mouth, with an injection, intravenously (IV), in a nasal spray, or in a skin patch. Some are taken daily. Others are taken monthly, yearly, or a few times a year.

If your treatment is going well, your health care professional may recommend taking a break ("drug holiday") from your medication. This allows your body to get the benefits of the medication while minimizing possible side effects.

How can I tell if treatment is working?

DEXA testing is used to monitor treatment. A DEXA test may be given 1 to 3 years after starting treatment. It usually takes at least 18 months of treatment to see an improvement in the DEXA score.

Glossary

Acquired Immunodeficiency Syndrome (AIDS): A group of signs and symptoms, usually of severe infections, in a person who has human immunodeficiency virus (HIV).

Body Mass Index (BMI): A number calculated from height and weight. BMI is used to determine whether a person is underweight, normal weight, overweight, or obese.

Birth Control: Devices or medications used to prevent pregnancy.

Corticosteroids: Drugs given for arthritis or other medical conditions. These drugs also are given to help fetal lungs mature before birth.

Diabetes Mellitus: A condition in which the levels of sugar in the blood are too high.

Endometriosis: A condition in which tissue that lines the uterus is found outside of the uterus, usually on the ovaries, fallopian tubes, and other pelvic structures.

Estrogen: A female hormone produced in the ovaries.

Gonadotropin-releasing Hormone (GnRH) Agonists: Medical therapy used to block the effects of certain hormones.

Hormone: A substance made in the body that controls the function of cells or organs.

Human Immunodeficiency Virus (HIV): A virus that attacks certain cells of the body's immune system. If left untreated, HIV can cause acquired immunodeficiency syndrome (AIDS).

Menopause: The time when a woman's menstrual periods stop permanently. Menopause is confirmed after 1 year of no periods.

Osteoporosis: A condition of thin bones that could allow them to break more easily.

Ovaries: Organs in women that contain the eggs necessary to get pregnant and make important hormones, such as estrogen, progesterone, and testosterone.

Rheumatoid Arthritis (RA): A chronic disease that causes pain, swelling, redness, and irritation of the joints and changes in the muscles and bones. The condition can become more severe with time.

If you have further questions, contact your ob-gyn.

Don't have an ob-gyn? Learn how to find a doctor near you.

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