The Orthopedic Clinic
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OrthoTOC.com

OrthoInfo Basics

Osteoporosis

As we reach our middle years, our lives are fuller than ever. But the natural effects of getting older can sometimes get in the way of our independence.

Bone strength, for example, decreases as we age. Bones can become very weak and fragile — a condition called osteoporosis.

There are things you can do to prevent osteoporosis or lessen its impact on your life. The first step toward staying active as you age is to build strong bones.

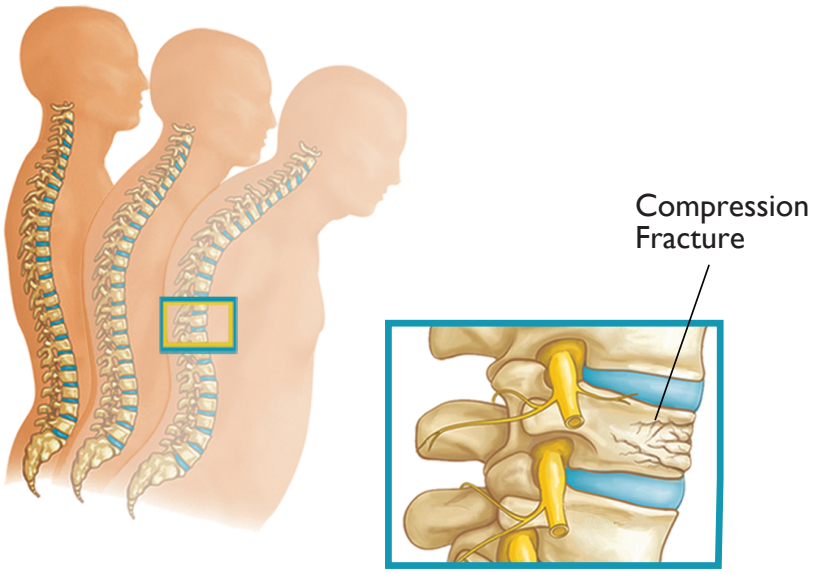
What is osteoporosis?

Osteoporosis literally means "porous bone." Porous means full of holes.

As we age, our bones get thinner. Osteoporosis is a disease in which bones become very weak and more likely to break. It often develops unnoticed over many years, with no symptoms or discomfort until a bone breaks.

These fractures most often occur in the hip, spine, and wrist. Broken bones are often the result of a fall, although people with osteoporosis can suffer a fracture even when doing simple household tasks.

Hip fracture is the most serious consequence of osteoporosis. About half the people who break a hip will need to use walkers or canes for the rest of their lives.



The progression of osteoporosis. Small fractures in your spine can make you shorter and cause a severely rounded upper back.

Who should be concerned about osteoporosis?

An estimated 54 million Americans have either osteoporosis or low bone mass.

Osteoporosis most often occurs in older women, but men are also at risk. One in two women and one in five men over age 65 will break a bone because of osteoporosis.

Being aware of what causes bone loss can help you determine your risk for developing osteoporosis.

Age. Everyone loses bone with age. During your 30s, your body builds less new bone to replace the old bone. Although osteoporosis can strike at any age, older people are at greater risk.

Body size. People with small, thin builds are at risk.

Ethnicity. Osteoporosis can affect anyone, but Caucasian and Asian people are more likely to develop it.

Family history. If your family has a history of osteoporosis or broken bones, you are at greater risk for the disease.

Nutrition. Low body weight and poor nutrition, including a diet low in calcium and vitamin D, can make you more prone to bone loss.

Lifestyle. Lack of exercise, smoking, and too much alcohol can make your bones weaker.

Medications. Some medicines, such as steroids, can increase your risk for osteoporosis.

How is osteoporosis diagnosed?

A bone density test helps your doctor identify osteoporosis.

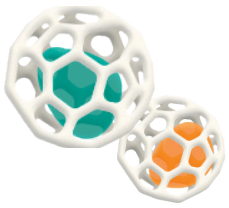
When to test. If you are a woman over 65 or a man over 70, you should have a bone density test.

Many doctors recommend bone density tests to women during menopause. This is because once they reach menopause, women's bodies produce less estrogen — a hormone that helps keep bones strong.

About the test. A bone density test is a safe, painless x-ray technique. It compares your bone density to the peak bone density that someone of your same gender and ethnicity should have reached at 20 to 25 years of age.

If you are diagnosed with osteoporosis, further bone density testing helps your doctor tell how well treatments are working.

Additional tests. In addition to bone density testing, your doctor will conduct a physical examination. He or she may recommend additional tests, such as skeletal x-rays and special laboratory tests.



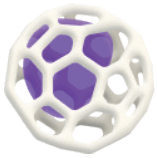
How is osteoporosis treated?

Because lost bone cannot be replaced, treatment for osteoporosis focuses on preventing further bone loss.

Team approach. Treatment is often a team effort by your family physician or internist, orthopaedist, gynecologist, and endocrinologist.

Treatment options. Exercise, a balanced diet, and healthy lifestyle are key components of osteoporosis treatment. Physical therapy or exercise programs that emphasize balance training — such as tai chi — may help to prevent falls.

Estrogen replacement therapy and other medications can help people with osteoporosis increase bone mass and reduce their risk for fracture.



How can I prevent osteoporosis?

You can take action to keep your bones healthy and slow down bone loss.

Eat a diet rich in calcium. Whatever your age or health status, you need calcium to keep your bones strong.

Men and women age 19 to 50 need at least 1,000 milligrams of calcium each day. After age 50, your body needs 1,200 to 1,500 milligrams.

Great sources of calcium are dairy products like yogurt and cheese, calcium-fortified orange juice and cereals, tofu and soy products, sardines, and green leafy vegetables like broccoli and collard greens.

Calcium supplements can also help. Talk to your doctor before taking any supplements.

Get enough Vitamin D. Vitamin D helps your body use calcium. Men and women age 19 to 70 need 600 IU of vitamin D each day. After age 70, your body needs 800 IU. Being in the sun 5 to 15 minutes a week or taking a multivitamin may provide enough vitamin D.

Exercise. Like muscles, bones need exercise to stay strong. Thirty minutes of weight-bearing exercise 3 to 4 times a week is a good goal. Weight-bearing describes any activity you do on your feet that works your bones and muscles against gravity. With regular weight-bearing exercise, your bone builds more cells and becomes stronger.

Some activities recommended to build strong bones include:

- Brisk walking, jogging, and hiking
- Tennis and other racquet sports
- Team sports, such as soccer, baseball, and basketball
- Dancing, step aerobics, and stair climbing
- Weight training with free weights or machines
- Although swimming and bicycling are not weight-bearing activities, they are good alternatives if you have a health condition that prevents weight-bearing exercise

Lead a healthy lifestyle. Smoking and excessive alcohol use have been linked to osteoporosis.

For more information

For more information about osteoporosis and how to prevent it, visit *OrthoInfo* at **www.orthoinfo.org.**

OrthoInfo is the patient education website of the American Academy of Orthopaedic Surgeons (AAOS), and is a trusted source of information about musculoskeletal conditions. Our articles are developed by orthopaedic surgeons, and provide detailed information about a wide range of injuries and diseases, as well as treatment options and prevention topics.

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