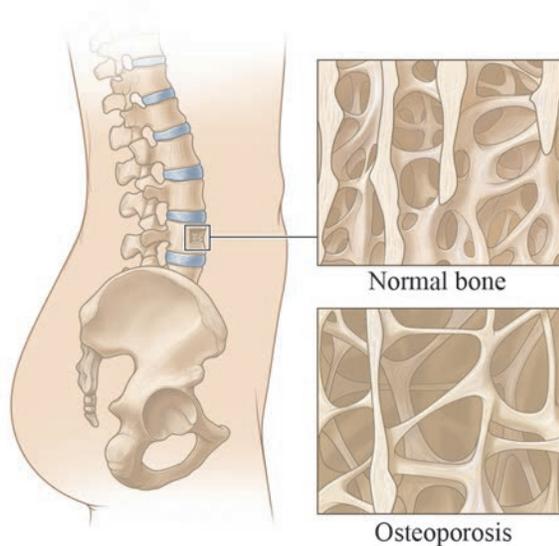


## Your Test: Bone Density Tests



Osteoporosis means your bones have lost calcium and have become lighter, less dense, and more porous, or spongy.

If you are at risk for osteoporosis, your doctor may suggest that you have a bone density test. This test measures the amount, or density, of minerals like calcium in your bones. This helps your doctor check how strong your bones are.

Osteoporosis is a "silent" disease: It usually does not cause symptoms early on. Bone density testing can help your doctor find osteoporosis before it leads to broken bones. Then you can start treatment to stop more bone loss.

### Who should be tested

Most doctors think:

- Women who are 65 and older should have routine bone density testing.
- Women who have a higher risk for osteoporosis should start testing sooner.

- People who are younger than 65 and who are at low risk may not need bone density testing.
- Older men should talk to their doctors about osteoporosis and have testing if they are at risk.

The World Health Organization has created a tool called FRAX. Your doctors might use the FRAX tool to help predict your risk of having a fracture related to osteoporosis in the next 10 years. The tool is meant for people who are not already being treated with medicine for osteoporosis. You can use this tool too. Go to [www.sheffield.ac.uk/FRAX](http://www.sheffield.ac.uk/FRAX), and click on Calculation Tool. If you have had a bone density test on your hip, you can enter your score. If you have not had that test, you can leave the score blank.

### Types of tests

There are several different ways to measure bone density:

**Dual-energy X-ray absorptiometry (DXA)** is the best way to measure bone density. DXA can measure a bone loss as small as 2 percent a year.

- DXA uses X-ray beams to check bone density in your spine and hip.
- DXA is fast and uses very low doses of radiation.

**Single-energy X-ray absorptiometry (SXA)** may be used to measure bone density in your heel and wrist. But it is not as commonly used as DXA.

**Peripheral DXA (P-DXA)** measures the density of bones in your wrist, heel, or finger. It cannot measure the bones most likely to break—the hip and spine.

- P-DXA uses very low doses of radiation.
- The results are faster than normal DXA results.

- P-DXA is not as good as DXA for checking the effects of medicine to treat osteoporosis.

**Dual photon absorptiometry (DPA)** uses a radioactive substance to measure bone density in your hip and spine.

- DPA uses very low doses of radiation, but it has a slower scan time than the other methods.

**Regular X-rays** are not used to diagnose osteoporosis. A bone must lose at least a quarter of its weight before a regular X-ray can detect the problem.

**Ultrasound** is sometimes used as a screening test for bone loss. If an ultrasound test shows that bone density is low, your doctor will suggest that you have a DXA test to confirm the results.

- Ultrasound uses sound waves to check bone density, usually in your heel. It cannot measure the density of the bones most likely to break because of osteoporosis—the hip and spine.

- Ultrasound is quick and painless, and it does not use radiation.

## How to prepare

Bone density testing is simple, quick, and painless—like having an X-ray. The DXA test takes about 20 minutes. Other types may take 30 to 45 minutes.

- Do not wear clothes with metal buttons or buckles.
- You may need to remove jewelry that could interfere with the test. For example, you might take off a bracelet if you are having the test done on your wrist.

**Do you have any questions or concerns after reading this information?** It's a good idea to write them down and take them to your next doctor visit.