

# Osteoporosis

## Definition

Osteoporosis, or porous bone, is a disease characterized by low bone mass and structural deterioration of bone tissue, leading to bone fragility and an increased susceptibility to fractures, especially of the hip, spine and wrist, although any bone can be affected.

In simpler terms, osteoporosis is a condition in which the bones become weak and can break from a minor fall or, in serious cases, from a simple action such as a sneeze.

## Introduction

People can have osteoporosis without any signs or symptoms. When you have osteoporosis, your bones become weak and are more likely to break. Because it is a disease that can be prevented and treated, an early diagnosis can make a difference. At any age, it is never too late to take steps to protect your bones and prevent fractures (broken bones).

You can find out whether you have osteoporosis or if you should be concerned about your bones by getting a bone mineral density (BMD) test. A BMD test uses a special machine to measure bone density. Some people also call it a bone mass measurement test. This test lets you know the amount of bone mineral you have in a certain area of bone. Bone density testing can be done on different bones of your body, including your hip, spine, forearm (between the wrist and elbow), wrist, finger or heel. A BMD test is safe and painless, and it provides important information about your bone health. Your healthcare provider uses this information to make recommendations to help you protect your bones.

If you are diagnosed with osteoporosis, your healthcare provider may order laboratory and other tests. These tests can help your healthcare provider find out if you have another medical condition causing bone loss.

## What A BMD Test Can Do

A BMD test is the only way to detect low bone density and diagnose osteoporosis. The lower a person's bone mineral density, the greater the risk of having a fracture. A BMD test is used to:

- Detect low bone density before a person breaks a bone
- Predict a person's chances of breaking a bone in the future
- Confirm a diagnosis of osteoporosis when a person has already broken a bone
- Determine whether a person's bone density is increasing, decreasing or remaining stable (the same)

Monitor a person's response to treatment

### **Who Should Have a BMD Test?**

There are some reasons (called risk factors) that increase your likelihood of developing osteoporosis. The more risk factors you have, the more likely you are to get osteoporosis and broken bones. Some examples are being small and thin, older age, being female, a diet low in calcium, lack of enough vitamin D, smoking and drinking too much alcohol.

Your healthcare provider may recommend a BMD test if you are:

A postmenopausal woman under age 65 with one or more risk factors for osteoporosis

A man age 50-70 with one or more risk factors for osteoporosis

A woman age 65 or older, even without any risk factors

A man age 70 or older, even without any risk factors

A woman or man after age 50 who has broken a bone

A woman going through menopause with certain risk factors

A postmenopausal woman who has stopped taking estrogen therapy (ET) or hormone therapy (HT)

Some other reasons your healthcare provider may recommend a BMD test:

Long-term use of certain medications including steroids (for example, prednisone and cortisone), some anti-seizure medications, Depo-Provera®

and aromatase inhibitors (for example, anastrozole, brand name Arimidex®)

A man receiving certain treatments for prostate cancer

A woman receiving certain treatments for breast cancer

Overactive thyroid gland (hyperthyroidism) or taking high doses of thyroid hormone medication

Overactive parathyroid gland (hyperparathyroidism)

X-ray of the spine showing a fracture or bone loss

Back pain with a possible fracture

Significant loss of height

Loss of sex hormones at an early age, including early menopause

Having a disease or condition that can cause bone loss (such as rheumatoid arthritis or anorexia nervosa)

### **Types of Bone Density Tests**

Central DXA: The National Osteoporosis Foundation (NOF) recommends a BMD test of the hip and spine by a central DXA machine to diagnose osteoporosis. DXA stands for dual energy x-ray absorptiometry. When testing can't be done on the hip and spine, NOF suggests a central DXA test of the radius bone in the forearm. In some cases, the type of bone density testing equipment used depends on what is available in your community.

Healthcare providers measure BMD in the hip and spine for several reasons. First, people with osteoporosis have a greater chance of fracturing these bones. Second, these fractures

can cause more serious problems, including longer recovery time, greater pain and even disability. BMD test results in the hip and spine can predict the likelihood of future fractures in other bones.

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Pictures of Dexascan located at our facility Family Medicine of Sayebrook.