

# **Osteoporosis: A debilitating disease that can be prevented and treated**

(adapted from National Osteoporosis Foundation – [www.nof.org](http://www.nof.org))

Osteoporosis, which is characterized by loss of bone mass leading to increased risk of fracture, affects 8 million women and two million men. By 2010, nine million women over age 50 are expected to have osteoporosis. Osteoporosis-related fractures are a main cause of disability and mortality in the United States. A woman's risk of hip fracture is equal to her combined risk of breast, uterine, and ovarian cancer.

Osteoporosis is a disease in which bones become fragile and more likely to break. If not prevented or if left untreated, osteoporosis can progress painlessly until a bone breaks. These broken bones, also known as fractures, occur typically in the hip, spine, and wrist.

Any bone can be affected, but of special concern are fractures of the hip and spine. A hip fracture almost always requires hospitalization and major surgery. It can impair a person's ability to walk unassisted and may cause prolonged or permanent disability or even death. Spinal or vertebral fractures also have serious consequences, including loss of height, severe back pain, and deformity.

Millions of Americans are at risk. While women are four times more likely than men to develop the disease, men also suffer from osteoporosis.

## **Bone Density Testing**

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)

## Screening Tests

Peripheral bone mineral density tests help identify people who are most likely to benefit from further BMD testing. This type of test is often done as a screening at health fairs and in some medical offices, but cannot be used to accurately diagnose osteoporosis. Peripheral BMD tests measure BMD in the extremities, including the forearm, wrist, finger or heel. This BMD testing method uses pDXA, QUS and pQCT.

People having a peripheral test should be aware that there are some limitations with this type of test. Comparisons between a peripheral test and a DXA test of the hip and/or spine may not be reliable. Peripheral tests are suitable for screening and predicting the risk of fractures. Experts prefer the central DXA test for diagnosing osteoporosis and monitoring treatment in patients taking an osteoporosis medication.

If you have abnormal results from a peripheral BMD screening, you should follow up with your healthcare provider. Discuss whether you need additional testing, such as a central DXA test of the hip and/or spine.

## Know My Bones Council

Amgen Inc., the National Osteoporosis Foundation and the Society for Women's Health Research have partnered to create the **Know My Bones Council**. With a focus on enhancing education, the Know My Bones Council is striving to help women understand bone health, the importance of prioritizing their bone health, and how to optimize bone care.

Several organizations are involved in the Know My Bones Council and initiatives are underway that will help educate postmenopausal women about their bone health. For more information on the Know My Bones Council, visit [www.knowmybones.org](http://www.knowmybones.org).

To learn more about osteoporosis visit the National Osteoporosis Foundation website at [www.nof.org](http://www.nof.org).



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