
Osteoporosis and Low Bone Mass

What Is The Difference And What Can I Do?

Strong bones: a lifetime commitment

- Bone is a living tissue that breaks down and rebuilds its structure throughout our lives. Bone is made up of calcium that makes bone dense (hard and strong).
- During childhood and young adulthood, you form new bone faster than you lose old bone. Between 18 and 25, you reach peak bone mass, the greatest amount of bone you will ever have.
- Your family history partly determines what your peak bone mass will be; some families tend to have denser bones than others. Making healthy lifestyle choices will help you reach the greatest peak bone mass possible for you.
- Achieving a greater peak bone mass will increase the “bank” of calcium that your body may draw on throughout your life. If over time your body withdraws more calcium than has been deposited, your bone density may decrease and your bones may become thinner and weaker.

Osteoporosis and low bone mass

- Osteoporosis is a bone-thinning disease that causes your bones to become thin and weak and increases the risk of breaking a bone. A broken bone may occur from a minor event such as a fall from a standing height.
- Low bone mass, sometimes called osteopenia, is a condition and is not considered a disease. A person may have low bone mass for a lifetime and never develop osteoporosis. However, if one has low bone mass and continues to lose bone density over time, this may lead to an increased risk of developing osteoporosis. Low bone mass along with risk factors for fracture may increase the risk for broken bones.
- Osteoporosis and broken bones do not need to be a normal part of aging; you can take action to promote strong bones for life. Though bone loss with advancing age is expected, the rate of loss varies among individuals and may be influenced by both genetic factors and lifestyle choices.

Diagnosing low bone mass and osteoporosis

- You cannot see or feel your bones becoming thinner or weaker. Bone Mineral Density (BMD) testing is used by health care providers to diagnose osteoporosis. The BMD test determines bone density by assessing the quantity of minerals (calcium and phosphorus) that your bone contains. A dual X-ray absorptiometry (DXA) of the hip and spine is a quick, painless, low-dose X-ray that measures the density or thickness of your bones.
- BMD testing provides a T-score that compares your bone density to the average bone density of young healthy adults of the same gender. A T-score above -1.0 typically represents normal bone mass. Low bone mass (osteopenia) may be identified when your T-score is between -1.0 and -2.5. A BMD test will result in a diagnosis of osteoporosis when your T-score is -2.5 or below.

How can I promote strong bones if I have low bone mass or osteoporosis?

You can make lifestyle choices that promote strong bones at any age. The steps for strong bones for life include:

- Eating a varied, nutrient-rich diet that includes plenty of fruits and vegetables
- Choosing foods to get the calcium you need and adding a supplement only if necessary
- Getting the recommended amount of vitamin D; this often requires a supplement
- Being physically active every day (for example: walking, climbing stairs or dancing) to the extent of your abilities
- Not smoking -- and quitting if you do smoke
- Limiting the amount of alcohol you drink
- Taking safety precautions to avoid falls
- Discussing your bone health with your health care provider

Medications and additional testing

- If your BMD test results indicate that you have osteoporosis, your doctor or health care provider may prescribe a medication for osteoporosis treatment. Low bone mass needs to be monitored but often does not need to be treated. If you have low bone mass along with significant risk factors for osteoporosis and/or fracture, your health care provider may recommend a medication.
- There are a number of FDA approved medications that may reduce bone loss, increase bone density, and reduce fracture risk. It is important to discuss all of the potential benefits and risks of taking any osteoporosis medication with your health care provider.
- Repeat BMD tests on the same DXA machine or the same model of that machine may be one way to monitor how your bones have responded to treatment. Your health care provider may also use blood tests of markers of bone loss to monitor the effectiveness of treatments for osteoporosis.