



Colorado Center for  
**BONE RESEARCH**

## OSTEOPENIA – WHAT DOES IT MEAN?

A bone mineral density (BMD) test lets you know if you have normal bone density, low bone density or osteoporosis. When your healthcare provider tells you that you have osteopenia, this means your bone density is somewhat low, but not low enough to be osteoporosis. With osteopenia, your BMD may still be considered normal for you.

You receive the result of your BMD test as a special number called a T-score. A T-score between -1.0 and -2.5 means you have low bone density, also called osteopenia.

If you learn that you have osteopenia after your first BMD test, it does not necessarily mean you are losing bone. You may be a person with bone density that has always been lower. For a variety of reasons, such as genetics (your genes) or certain diseases and conditions, some people never have normal bone density.

Only after your second BMD test will you know if you are losing bone density. Your healthcare provider will compare your second BMD test to your first one to find out if your bone density is staying the same or changing. Small changes in your BMD test result may not mean you are losing bone. You may even need a third or fourth BMD test to know for sure.

When you have osteopenia, you have a greater chance of getting osteoporosis if you lose bone in the future. This is because you have less bone to lose. When people with osteopenia start losing bone, they are more likely to break a bone compared to people with higher bone density.

### PROTECTING YOUR BONES

A diagnosis of osteopenia at any age is an opportunity to make certain lifestyle changes to prevent osteoporosis and fragile bones that are subject to fracture. Here's a quick checklist for keeping your bones strong and healthy:

**Get enough calcium every day.** This is important throughout your life for healthy bones. Adults under age 50 need 1,000 mg of calcium every day.

**Dr. Paul Miller recommends that adults age 50 and over take 1,500 – 2,000 mg of calcium daily.**

If you get enough calcium from the foods you eat, then you don't need to take a supplement. The total amount of calcium you get includes the calcium in the foods you eat, plus your multivitamin and supplements.

**Be sure to get your vitamin D.** Adults under age 50 need 400-800 IU of vitamin D<sub>3</sub> every day.

**Dr. Paul Miller recommends that adults age 50 and over take 1,000-2,000 IU of vitamin D<sub>3</sub> daily.**

Vitamin D<sub>3</sub> is the form of vitamin D that best supports bone health. It is also called cholecalciferol. There are several ways to get vitamin D; from sunlight, a few foods, multivitamins, supplements and medications.

**Make exercise a part of your routine every day.** You need to exercise regularly to keep your bones strong and healthy. Two types of exercises are important for bone health:

- Weight-bearing exercises, such as walking, running and jumping rope; and
- Resistance and strengthening exercises, such as weight lifting and using exercise bands and resistance machines

**Be careful with salt, caffeine and cola drinks.** Too much is not good for your bones.

**Don't smoke.** Smoking is bad for your bones for many reasons.

**Avoid too much alcohol.** Heavy drinking weakens bones. Drinking more than two alcoholic drinks a day can harm your bones.

**Talk to your healthcare provider.** Make your healthcare provider your partner in keeping your bones strong.

### **Taking an Osteoporosis Medication**

If you have osteopenia, your healthcare provider may recommend an osteoporosis medication. Discuss with your healthcare provider if a medication is right for you at this time. Decisions about when to take a medication to prevent bone loss are complex. In addition to your BMD test result, your healthcare provider looks at other factors such as:

- Your age
- If you are a woman or a man
- If you have broken a bone before
- Other diseases or conditions you have
- Medications you currently take
- Your lifestyle
- Your family medical history
- Your chance of falling
- Other factors

A new method called FRAX (Fracture Risk Assessment Tool) helps healthcare providers and their patients age 40 and older make better decisions about when to take an osteoporosis medication. Fracture risk assessment estimates a person's chance of breaking a bone over a period of 10 years. Postmenopausal women and older men with osteoporosis are at greatest risk of breaking a bone. FRAX is not used for women before menopause or people who are already on a medication to treat osteoporosis.

In the past, healthcare providers knew to treat people with osteoporosis, but were sometimes uncertain about when to treat patients with osteopenia. The fracture risk assessment method makes it easier for healthcare providers and their patients with osteopenia to decide when an osteoporosis medication is necessary. This method helps make sure that people with the greatest chance of breaking a bone get treated.

Healthcare providers can get a patient's FRAX by using a special web-based tool on a computer in their office. The healthcare provider enters a patient's hip T-score and certain risk factors for osteoporosis. The tool predicts the patient's absolute fracture risk. Soon some central DXA (dual energy x-ray absorptiometry) machines will be able to provide this information. Most experts recommend BMD testing by this type of machine.

When you are thinking about taking a medication, discuss both the risks and benefits of taking (or not taking) a medication with your healthcare provider. The need for continuing a medication should be reviewed at least once a year.

Source: Paul D. Miller, MD, National Osteoporosis Foundation