



# Building Healthy Bones and Avoiding Osteopenia

by KARLA JARVIS

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## What Is Osteopenia?

Over 10 years ago, I agreed to be a participant in a long-term cancer study. There were many health tests to begin the study, such as height, weight, blood pressure and so on. One test in particular impacted me significantly; a bone density test revealed that I had osteopenia. I was just beginning my forties, and not yet in menopause. At the time, I knew of osteopenia, but I did not understand how it might impact my life and how I should respond to this revelation. The news came as a shock, as I believed myself to be doing all the right things to stay healthy. So, what is osteopenia?

## Osteoporosis vs Osteopenia

Osteoporosis and osteopenia are two linked diseases, both of which refer to weakened bones, and osteopenia is often known as a precursor condition to osteoporosis. Think of it as a point between having strong, healthy bones and having weakened and easily fractured osteoporotic bones. A bone density test will reveal whether your bones are healthy or have become weakened, or if your bone loss is so advanced you now have osteoporosis. Bone density testing is painless and similar to an x-ray; by measuring the calcium and other minerals in bones, such as the spine, hip and forearm, the test will reveal if you have osteopenia, osteoporosis, or healthy bones.

## What Are the Causes?

This health condition is the weakening of bones, resulting in low bone mass. A small amount of bone loss can be expected with age, and this is normal. However, and all too often, the loss of bone is faster than the growth of new bone. When this happens, bones become porous, brittle and fracture too easily. Some adults are at a higher risk of developing it, such as those with small-boned frames, estrogen deficiencies and advanced age. There are also lifestyle choices that can increase bone loss. Poor nutrition and a lack of weight-bearing exercise are linked as significant causes of osteopenia. Other lifestyle choices like smoking, drinking too much alcohol, and a diet low in calcium, vitamin D, or protein can increase your risk of developing osteopenia. This disease is, for many people, a preventable one, and prevention must begin in childhood. By eating a well-balanced diet, exercising regularly and living a healthy smoke-free lifestyle, many can avoid the diagnosis of osteopenia.

## Are There Risk Factors I Should Know About?

Your risk of developing this disease is a combination of things that you can control and things that you cannot control. If you are over the age of 50, you have an increased risk. If you are female, you also have an increased risk. Some adults, like me, are genetically prone to developing osteopenia.

If you have another medical condition for which you take medications, there may be an increased risk of developing osteopenia. Thyroid medications are thought to contribute to osteopenia, as well as exposure to chemotherapy radiation when treating cancer. If you have untreated celiac disease, you may increase your risk of developing osteopenia. There are other medications that are thought to increase the risk, including steroids and

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anti-seizure drugs. Do not change or stop any prescribed medications without consulting your health care team; talk to your doctor about your current medical treatments and your concerns about osteopenia.

When I learned of my osteopenia, I was thrilled to know that there are many lifestyle changes that I could address. While I cannot change my age or heritage, I could increase my calcium and vitamin D intake. I was already exercising and strength training. Still, I chose to increase the level of weight training that I was doing in an effort to strengthen my bones. I am not a smoker, which does increase the risk, so I did not have to face the challenge of quitting smoking. I also continue to keep my alcohol use to a minimum, though I do enjoy a glass of wine. Sodas or carbonated drinks also increase the risk of bone loss, which I avoid. Although some of the risk factors of osteopenia are unavoidable, sound nutrition and regular weight-bearing exercise are great ways to reduce your own risk.

### **What Are the Early Signs and Symptoms of Osteopenia?**

Unfortunately, osteopenia can occur without feeling or noticing any changes in your body, as this disease happens without symptoms. Bone loss occurs over the years, and the first sign of osteopenia is often a broken bone after a very slight injury to that bone. As a result of a fracture occurring from an otherwise minor injury, many learn that the fracture happened because of osteopenia. Sadly, the disease may already be quite advanced at this stage. I know from my own experience that being diagnosed with osteopenia came as a shock. A bone density test will reveal your bone mass. If you are concerned, talk to your health care team about assessing your risk and your need for a bone density test.

### **Are There Treatments and Ways to Manage Osteopenia?**

A diagnosis of osteopenia is best responded to with healthier nutrition and weight-bearing exercise. Your intake of calcium and vitamin D is critical to managing your osteopenia well.

Adequate protein intake is also crucial, as protein plays a role in building and repairing bones. Talk to your doctor or a registered dietician or nutritionist to ensure your diet meets your bone health needs.

The key to managing osteopenia well and avoiding its possible progression to osteoporosis is through nutrition and exercise. Your doctor may also recommend medications such as bisphosphonates, hormone replacement therapies and RANK ligand inhibitors to help keep your bones as healthy as possible. These medications are the same as those used to treat osteoporosis. If you are over the age of 50 or have several other risk factors linked to osteopenia, consider getting a bone density test.

### **What Is the Difference Between Osteopenia and Osteoporosis?**

It may be helpful for you to think of bone health as being on a continuum. Healthy bones build from birth, reaching their peak density in our late teens and early 20s. As we age, we lose some of this bone mass due to the natural aging process, and poor lifestyle choices may negatively affect bone health. If you do not consume enough calcium and vitamin D, if you smoke or drink too much alcohol and if you do not get enough weight-bearing exercise, you may experience more bone loss than is typical. This bone loss may result in osteopenia and may then progress to osteoporosis. These two diseases are related as they both refer to lowered bone mass, with each varying in the degree of bone strength.

If you are like me and have received a diagnosis of osteopenia, there are steps that you can take to avoid the disease progressing to osteoporosis. Discuss your next best steps with your health care team and ensure that your nutrition and exercise plan positively address your osteopenia diagnosis. Embrace a healthier lifestyle to manage or prevent osteopenia and ensure your bones are as healthy as possible.