

Osteopenia

Osteopenia occurs when the bone mineral density is lower than normal peak bone mineral density, but not to the point where it is classified as osteoporosis. Bone mineral density is essentially a measurement of the mineral levels in the bones, which shows how strong or dense they are. If the density levels are lower than normal, you are classified as having osteopenia. By having this condition, it means that there is an increased risk that, as time goes by, you might end up developing a density level that is lower than normal, known to as osteoporosis.

Osteopenia literally means osteo (bone) and penia (low in quantity).

Bones tend to naturally become thinner as you grow older. Beginning from middle age, existing bone cells are reabsorbed by the body quicker than new bones are made. As this occurs, bones end up losing minerals, which makes them weaker and increases the chance of breakage. The thicker your bones are at 30 years old, the longer it will take them to develop osteoporosis.

Causes of Osteopenia

Osteopenia is not a disease or a disorder, it is simply a lower than average bone density. In a population of people some will have higher levels and some will have lower levels of bone density, and this is just natural variation.

Some factors affecting bone density are:

- Previous drug use, especially corticosteroids or oral steroid use
- Asthmatics who have used large quantities of steroids over the years
- Alcoholics
- People with poor diets
- People who don't exercise much or have sedentary lifestyles
- Disabled people who are wheelchair bound

Osteopenia is not something that tends to affect younger people, except in cases of malnutrition or eating disorders such as anorexia.

Osteopenia is a silent condition, meaning that you will not have any symptoms associated with it. Contrary to belief, it does not cause joint pain, muscle aching, or morning stiffness. It is simply a lack of density in the bone. As a result of this, it may go unnoticed for years, or it might be picked up on a routine bone density scan (known as a DEXA scan).

Osteopenia may leave you slightly more at risk of fracture if you fall. However, osteopenia can develop into its bigger sister osteoporosis. This is a condition where the bone density is significantly below normal. If you fall you are much more likely to have a fracture.

Osteopenia Anatomy

The skeletal system is made up of all the joints and bones in the body. All of the bones are a complex group of living organs that are composed of multiple cells, protein fibers and a range of minerals. The skeleton serves as a scaffold by delivering protection and support for the soft tissues that make up the remainder of the body. The system provides a series of attachment points that allow the muscles to move at the joints.

New blood cells are generated by the red bone marrow that is inside of the bones. The bones act as the warehouse for the body's calcium, energy and iron in the form of fat. The skeleton continues growing throughout childhood and serves as a framework for the remainder of the body to continue growing along with it.

How to Treat Osteopenia:

1. Changing Your Lifestyle

Making changes in your lifestyle will help to reduce the amount of loss in your bones. Reducing alcohol, eating healthy foods and remaining active are all great methods for keeping your bones healthy.

2. Exercise

Exercise is crucial to the development of strong bones because bones form in response to stress. Exercises like walking, dancing and hiking are all great options. Adding in some exercise using light weights or elastic bands will help to strengthen the bones within the upper part of the body.

3. Medication

Various medications are available to help treat bone thinning. Most of the time, these are only used if you have progressed beyond osteopenia and into the more serious form of osteoporosis. Supplementation of vitamin D and calcium can also aid mineralization of the bone.

4. Pilates

Performing Pilates can be beneficial to the health of the joints and bones by encouraging weight bearing through each joint to improve core control and stability of the joints.

5. Resistance Training

Working with a personal trainer can be very useful for carefully increasing body strength. Resistance machines have been shown to increase bone density. The gradual increase in force going into the bone encourages the bone to lay down more bone tissue cells and create a stronger internal matrix.

Tips:

- Make sure you are active and moving. Being bedridden or inactive for extended time periods only increases the risk of osteopenia.
- Avoid drinking excessive amounts of alcohol.
- Make sure your diet is rich in Vitamin D and calcium.
- If you are too thin, your body won't have very thick bones, which causes the condition to occur faster than those who have an adequate amount of weight.
- Eating disorders or any other disease that affects your body's ability to absorb the nutrients from food can lead to osteopenia.