

Osteoporosis: cause, symptoms, and prevention

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Osteoporosis, the silent bone thief, reduces bone density, making bones more fragile and prone to fractures. It primarily affects the aging population, particularly postmenopausal women. Early diagnosis, treatment, and maintaining a healthy lifestyle can help prevent further bone loss and strengthen weak bones.

What is Osteoporosis?

Osteoporosis is a chronic condition that impacts bone density. Bones become less dense, thinner, more fragile, and more prone to breaking. Bones are living tissues; they are always in a process of formation. There is a balance between new bone formation and the removal of old bone to maintain density and strength. Osteoporosis disrupts this balance, leading to more bone removal than formation. Bones develop holes in their structure. The medical term for reduced bone density is Osteopenia. Osteopenia is an early indicator of Osteoporosis; if left untreated, it can progress to Osteoporosis.

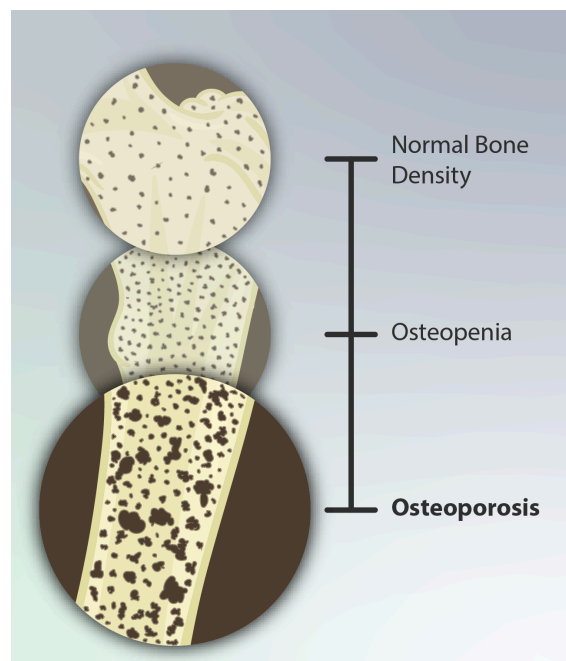


Figure 1. Understanding Bone Density Levels. This diagram shows how bone becomes more porous as it progresses from healthy bone to osteoporosis. Adapted from original by myUpchar, via Wikimedia Commons, ([CC BY-SA 4.0](https://commons.wikimedia.org/wiki/File:Depiction_of_an_Osteoporosis_patient.png))

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What causes Osteoporosis?

Osteoporosis occurs when new bone formation can't keep up with the removal of old bone.

Many factors can cause osteoporosis:

- Hormonal changes in postmenopausal women. Oestrogen levels, which are essential for maintaining bone density, drop, leading to increased bone loss. Men over 70 experience a decline in testosterone levels, leading to bone loss.
- Family history and genetics
- Nutritional deficiencies, such as low calcium and vitamin D intake
- Smoking and alcohol misuse
- Lack of physical activity
- Medical conditions like rheumatoid arthritis, celiac disease, and hormonal disorders
- Certain medications, like corticosteroids and diuretics

Diagnosis and treatments

Osteoporosis is a silent disease; it doesn't show symptoms until you break a bone. As the condition progresses, you may experience common symptoms such as:

- Back pain
- Loss of height
- Stooped posture
- Bone fractures from minor injuries

Doctors diagnose osteoporosis with a bone density scan, known as a bone mineral density (BMD) or DEXA scan. BMD is an imaging test that assesses bone strength by using X-rays to measure calcium and other minerals in your bones.

Prevention is key

You can prevent the condition and fracture by:

- eating a healthy diet rich in calcium and vitamin D
- staying physically active

- avoiding smoking
- limiting alcohol consumption
- maintaining a healthy weight
- having regular checkups if at risk

Living Well with Osteoporosis

Osteoporosis is a chronic condition that requires lifelong management. Although there is no cure for osteoporosis, you can control your symptoms through medication and lifestyle adjustments.

The treatment plan includes:

- A combination of medications to slow down bone loss and strengthen your bones.
- Regular weight-bearing exercise can help strengthen muscles and improve balance.
- Vitamins and mineral supplements such as vitamin D and calcium.

Final thoughts

Osteoporosis is one of the most common bone diseases, leading to fractures and other complications. We can prevent and manage osteoporosis by educating people about this condition. Taking steps towards prevention through a balanced diet, regular exercise, and check-ups is essential.

Prioritise your bone health today to enjoy an active, healthy lifestyle and reduce the risk of fractures in the future.

To know more about Osteoporosis:

- [Healthy Bones Australia](#)

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