

What is Osteoporosis? What are the Risk Factors for Osteoporosis?

What is osteoporosis?

Osteoporosis is a disease in which the bones become fragile and brittle. They fracture more easily than normal bone. Even a minor bump or fall can cause a serious fracture. Half of all women and one-third of men over 60 in Australia will have a fracture due to osteoporosis.

Osteoporosis and fractures are major causes of injury, long-term disability and even death in older Australians. One fifth of people who suffer a hip fracture will die within six months. Of those who don't die, 50 per cent will be unable to walk without help or stay in their own homes. Some may even need full-time nursing care.

Osteoporosis is often called a silent disease, as there are usually no signs or symptoms until someone has a fracture.

Any bone can be affected but the most common are bones in the hip, spine, wrist, ribs, pelvis and upper arm.

What causes osteoporosis?

The health of your bones depends on:

- your genes (60-80%)
- the level of hormones in your body. In women this hormone is oestrogen; in men it's the hormone testosterone.
- how physically active you are
- what you eat

These things affect how well bones form in early adulthood when your bones are at their strongest. After the 30s, it's important to maintain bone strength and prevent bone loss.

Menopause and osteoporosis

Menopause means the time around a woman's last period. Most Australian women reach menopause between the ages of 45-55, but it can happen earlier.

From about the age of 45 years, women may begin to lose bone at the rate of about 1-2% per year. This is because women's bodies usually make less oestrogen at this age. After menopause, oestrogen levels keep decreasing, and this

speeds up bone loss to about 2-4% per year, especially in the first 5-10 years after menopause. This stage of bone loss caused by menopause may last up to 15-20 years. All women lose bone at menopause. The amount varies, but some can lose as much as 30% of their bone during those years. If you have an early menopause for some reason, you will begin to lose bone at an earlier age. You should ask your doctor about preventing osteoporosis.

Men and osteoporosis

The male hormone, testosterone, does not decrease suddenly like oestrogen does in women during menopause. Instead, testosterone gradually decreases from about 50 years of age in men. However, men's bone density tends to stay the same until they are much older. But after 75 years of age, both men and women lose more bone, especially in the hip. This is part of the ageing process.

Risk factors for osteoporosis

Risk factors for osteoporosis and fractures caused by osteoporosis are similar in women and men. They include some things that you can change, and some that you can't.

Risk factors you can change

You have a higher risk of having a fracture due to osteoporosis if you:

- Do little or no physical activity
- Are a smoker
- Have a high alcohol intake
- Have low body weight
- Have low calcium intake
- Frequently fall

Risk factors you can't change

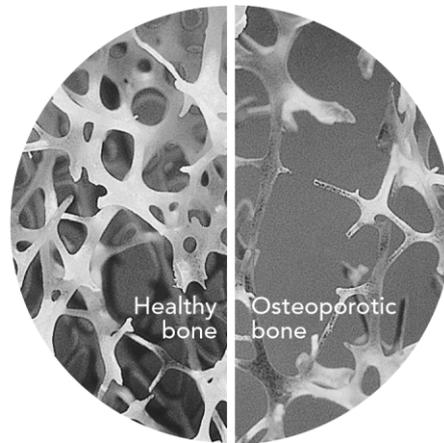
You have a higher risk of having a fracture due to osteoporosis if you:

- Have a parent or grandparent who has osteoporosis or who has had a fracture caused by osteoporosis.
- Are female
- Are Caucasian or Asian
- Have a small body build
- Had delayed puberty or early onset of menopause
- Had anorexia which caused loss of periods
- Have already had a fracture caused by osteoporosis
- Are over 60 years of age
- Have rheumatoid arthritis, chronic liver disease or kidney failure
- Have a history of over-active thyroid or parathyroid glands, or have been treated with thyroid hormones in the past
- Are a male with low levels of testosterone
- Have had long-term drug treatment with corticosteroids (such as prednisone)

Preventing osteoporosis – reduce your risk

Preventing osteoporosis is important. Although there are treatments for osteoporosis, there is no cure. You can reduce your risk of developing osteoporosis and having a fracture by:

- Having a balanced diet rich in calcium and vitamin D. For most people, three serves of dairy foods daily will provide enough calcium
- Vitamin D to help the body absorb calcium (see fact sheet on vitamin D for more information). Vitamin D is in small amounts in foods such as dairy products fortified with vitamin D, egg yolks, saltwater fish and margarine. The best source of vitamin D is from safe sunlight exposure.
- Weight-bearing, high impact and strengthening exercises (such as walking, tennis, dancing and weight training)
- Having a bone density test, if appropriate
- Asking your doctor if you need medication
- Asking your doctor if any medicines you take may be causing bone loss
- Not smoking
- Drinking less alcohol



Healthy bone

Osteoporotic bone