
Osteoporosis in men

Summary

- Osteoporosis means 'porous bone'.
 - It causes bones to become weak and lose their strength.
 - Osteoporotic bones break more easily than normal bones.
 - Osteoporosis is a serious health risk for men.
 - Treatment may include medications to increase bone density, treatment for any underlying condition and lifestyle changes.
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Osteoporosis is a condition that causes bones to become weak and lose their strength, making them break more easily than normal bones.

It affects men as well as women. Up to 25 per cent of all fractures that occur in people over 50 occur in men. Common sites for fractures include the hip, wrist and spine.

Our bones

Our bones are living tissue that is constantly growing, rebuilding, replacing and repairing.

From birth to about 25 years of age, we build more bone than we lose. Our bones are not only getting bigger as we grow during this time, but they're developing their density. This determines how strong they are.

From about 25 to 50 years of age, our bones break down and rebuild at about the same rate. They are in a state of balance. This is when we have achieved our 'peak bone mass'. Our bones are at their strongest.

After about 50 years of age, we start to break down more bone than we rebuild. As a result, our bones slowly start to lose density and strength, which makes them more susceptible to fracture. Everyone experiences bone loss as they age, however not everyone will develop osteoporosis. Only after bone loss reaches a certain point is a diagnosis of osteoporosis made.

Symptoms of osteoporosis in men

Osteoporosis is often called a 'silent' condition, as people don't notice any symptoms until they fracture a bone.

When symptoms do occur, they're generally the result of a fracture. These symptoms may include:

- loss of height
- postural changes
- pain.

Lower risk of osteoporosis in men

Osteoporosis is less common in men than it is in women. This is due to several factors including:

- men generally have a larger skeleton
- men don't experience the sudden drop in hormone (oestrogen) levels that women do at menopause
- the decrease in bone mass occurs at a slower rate in men than women until the age of 65–70, when the rate is the same for men and women.

Risk factors for osteoporosis in men

Throughout our lives, bone density is affected by factors such as our genetics, physical activity, diet, hormones (such as testosterone), lifestyle choices and the use of certain medications.

Factors that are linked to an increased risk of osteoporosis in men include:

- a family history of osteoporosis, fractures and loss of height
- chronic diseases – such as rheumatoid arthritis, over-active thyroid or parathyroid glands, coeliac disease and other chronic gut conditions, chronic liver or kidney disease, diabetes and low testosterone levels
- regular use of certain types of medication, such as glucocorticoids, anticonvulsant medication, some anti-depressants and treatment for prostate cancer
- lifestyle factors, such as smoking, excessive alcohol use, low calcium intake, inadequate exercise, obesity, vitamin D deficiency and low body weight.

Diagnosing osteoporosis in men

Osteoporosis may be diagnosed in men by examining their medical history, and by conducting:

- a physical examination
- DEXA (dual-energy x-ray absorptiometry) scan to measure bone density
- blood tests
- urine tests.

Treating osteoporosis in men

Medical treatment is designed to suit the needs of the individual. Options may include:

- treating any underlying disease (such as rheumatoid arthritis or coeliac disease)
- medication
- lifestyle changes.

Treating an underlying disease

When osteoporosis has been caused by an underlying condition, it's known as 'secondary osteoporosis'. It's important that the underlying condition is diagnosed and treated as soon as possible. Treatment options will depend on the particular condition you have. You may also be referred to a specialist to help your doctor manage your underlying condition.

Medication

The type of medication chosen by your doctor depends on factors such as your age, general health and fracture risk. Medication options may include:

- bisphosphonates – these medications increase bone density by interfering with the body's natural process of breaking down bone tissue. They are the most commonly used medications to treat osteoporosis in men. They may be taken orally, by subcutaneous injection (injection into the fatty tissue between the skin and the muscle) or by intravenous injection (injection into a vein)
- testosterone therapy – may be prescribed if testing shows you have low testosterone levels. Testosterone may be administered orally, or via injections, implants, skin patches or with gels and creams
- parathyroid hormone therapy – helps new bone to grow and increase mass. This medication is administered by daily injection.

Lifestyle changes

As well as medication, there are many things you can do to improve your bone health, and hopefully prevent your osteoporosis progressing.

Be guided by your doctor. Some lifestyle changes for treating osteoporosis in men may include:

- exercise – if you have osteoporosis, it's recommended that your physical activity is reviewed and prescribed by an exercise professional, such as a physiotherapist or exercise physiologist. This is because some activities like jumping, running and twisting can be hazardous to weaker bones, particularly if you have had a fracture. Other forms of exercise such as strength training can actually benefit the bones. A well-designed, individualised program will help make sure that exercise is beneficial, comfortable and safe

- make sure you have enough calcium in your diet – adults need a minimum of 1,000 mg of calcium every day, with men aged over 70 needing 1,300 mg. Dairy products are a good source of calcium, but calcium can also be found in small amounts in other foods including breads, cereals, tofu, legumes, fruits and vegetables, fish with edible bones (such as tinned salmon and sardines), tahini, almonds, figs and foods fortified with calcium. If you don't think you're getting enough calcium through your diet, talk with your doctor. You may need to consider taking supplements
- vitamin D – helps your body absorb calcium. The best source of vitamin D is safe exposure to the sun. The exact amount of time needed will depend on your skin colour, where you live in Australia and the time of year. There are small quantities of vitamin D in a few foods, such as fatty fish (salmon, herring and mackerel). It's also found in liver, eggs and fortified foods such as margarine. However, most people don't get enough vitamin D from diet alone. Your doctor may suggest that you take vitamin D. If you're not sure if you are getting enough vitamin D, talk with your doctor
- falls prevention program – falls are responsible for the majority of hip and spine fractures in older people. A falls prevention program can provide strategies to help you prevent falls occurring
- quit smoking – smoking reduces your bone density
- consume alcohol and caffeine in moderation
- eat a healthy diet for overall good health. Increase your daily intake of fresh fruits and vegetables, lean meats, wholegrain cereals and dairy products
- reduce your intake of fatty, salty and processed foods.

Where to get help

- Your **GP (doctor)**
- **Physiotherapist**
- **Exercise physiologist**
- **Dietitian**
- **Musculoskeletal Australia** National Help Line Tel. **1800 263 265**

This page has been produced in consultation with and approved by:

Musculoskeletal Australia - formerly MOVE

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