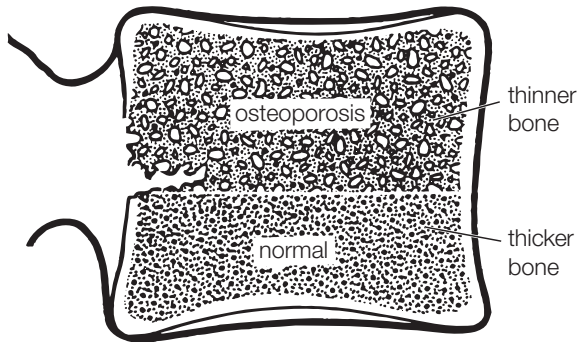


# Osteoporosis

## What is osteoporosis?

*Osteoporosis*, which means ‘bones with holes’, is a condition leading to thinning of bones so that they become weak and brittle due to loss of calcium.



## Who gets it?

Osteoporosis is found mainly in middle-aged and elderly women, after the menopause (when the periods cease). It can also affect men.

## Why do they get it?

Women at greatest risk are those who:

- are of Caucasian or Asian racial origin
- have a family history of osteoporosis
- are thin and slight
- smoke cigarettes
- drink alcohol
- drink a lot of caffeine drinks (e.g. more than 3 cups of coffee a day)
- get little exercise or physical activity
- have little calcium in their diet
- have a poor diet in general
- lack hormones due to the menopause, especially early menopause
- have taken cortisone tablets.

The longer you live the greater the chance you have of getting osteoporosis.

## What is the risk?

The main risk is a bone fracture especially of the hip, spine or wrist from a fall. Sometimes a bone will collapse or break without injury (e.g. coughing causing a fractured rib). Osteoporotic fractures of the spine can cause gradual development of the ‘Dowager’s hump’.

## How do you know if you have it?

Most women do not know, because thinning of the bones occurs unobtrusively. It is often first noticed when a bone breaks, usually the hip, wrist or vertebrae of the spine. X-rays may give some idea but they are limited because osteoporosis is not detectable until up to 50% of bone is lost.

The best test which is done on the spine and neck of the femur bone is the DEXA bone densitometry scan.

## What can you do about it?

- Take regular weight-bearing exercise such as dancing, tennis, jogging and walking (e.g. brisk walking for 30 minutes four times a week).
- Stop smoking.
- Cut down on alcohol and caffeine.
- Have a healthy diet.
- Have adequate calcium in your diet: 1000 to 1500 mg per day (1500 mg if postmenopausal). Eat calcium-rich foods such as low-fat calcium-enriched milk (500 mL contains 1000 mg), other low-fat dairy products (e.g. yoghurt or cheese), fish (including tinned fish such as sardines and salmon, with the bones), citrus fruits, sesame and sunflower seeds, almonds, brazil nuts, hazelnuts and tofu.
- Use vitamin D—best got from sunlight on your skin (face and arms) (e.g. 20 minutes exposure a day).

## Drug treatment

The best treatment is probably preventive hormone replacement therapy with oestrogen following the onset of the menopause but its long-term use is controversial. There are now many drugs available to improve established osteoporosis. These include:

- bisphosphonates
- selective oestrogen receptor modulators (SERMS)
- strontium ranelate
- tibolone
- calcitriol (a vitamin D derivative).

## What can your doctor do?

Your doctor may:

- discuss your diet
- suggest hormone tablets and calcium supplements
- review your ‘risks’ for osteoporosis, and if you are at high risk suggest further tests such as bone density measurement
- prescribe special medication.

### Key points

- Osteoporosis is a common condition.
- It starts from a young age but develops faster in middle and older age.
- The main aim is to *prevent* it from occurring, including preventing falls.