



# Osteoporosis

## What is osteoporosis?

Osteoporosis (meaning 'porous bones') is a condition that causes bones to become thin, weak and fragile. This occurs when bones lose minerals, such as calcium, faster than the body can replace them (Figure 1).

Decreases in bone mineral density and changes in bone quality make bones more fragile and easily broken than bones of 'normal' density. As a result, even a minor bump or accident can cause a fracture (broken bone). Such events include falling out of bed or off a chair, or tripping and falling while walking.

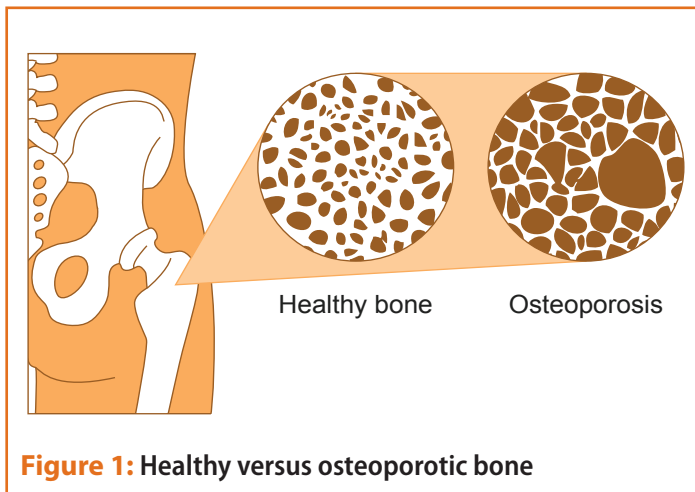


Figure 1: Healthy versus osteoporotic bone

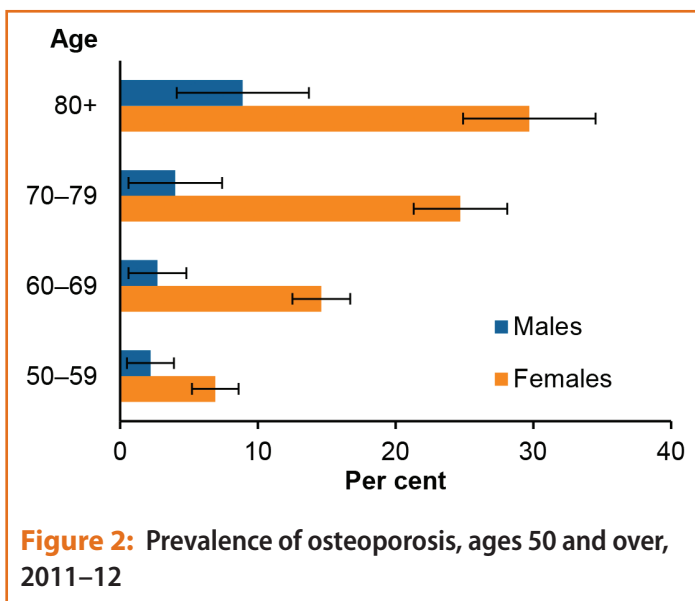
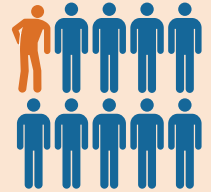


Figure 2: Prevalence of osteoporosis, ages 50 and over, 2011-12

## Fast Facts

**1 in 10** Australians aged 50+ reported having osteoporosis or osteopenia— that's 652,500 people



**5x** more women aged 50+ reported having osteoporosis or osteopenia compared to men— 15.1% of women and 3.3% of men



**2x** the hospitalisation rate for minimal trauma hip fractures for women aged 50+ compared to men



## Who gets osteoporosis?

Based on self-reported data from the most recent Australian Bureau of Statistics National Health Survey (2011-12), about 625,500 Australians aged 50 and over (9.4%) reported having osteoporosis or osteopenia. Osteopenia is low bone density between the range of normal and osteoporosis and is also a risk for bone fragility. These conditions are more common for women (15.1%) than men (3.3%) of this age (Figure 2).

Osteoporosis has no obvious symptoms and is often not diagnosed until a fracture occurs. Therefore, its true prevalence is likely to be an underestimate.

## How do you manage osteoporosis?

### Medications

Drugs that reduce bone breakdown are commonly used for treating osteoporosis. These include oral bisphosphonates such as alendronate and risedronate, intravenously administered bisphosphonate (zoledronic acid), and an injection given under the skin (denosumab).



## Hospitals

People with osteoporosis are at higher risk for hospitalisations from minimal trauma fractures. These fractures can occur from a minor bump, fall from a standing height or an event that would not normally result in a fracture if the bone was healthy.

According to the National Hospital Morbidity Database, in 2012–13 there were 66,447 osteoporosis-related hospitalisations. Of these, 5,917 were for a principal diagnosis of osteoporosis and 60,530 were for a principal diagnosis of minimal trauma fracture.

The most common minimal trauma fracture sites are: the hip (31.2%), forearm (15.7%), lumbar spine and pelvis (12.3%).

Between 2003–04 and 2012–13, the number of hospitalisations for minimal trauma hip fracture among people aged 50 and over increased by 18.4%.

## How does osteoporosis affect quality of life?

People with osteoporosis who suffer a minimal trauma fracture can be severely affected. Wrist and forearm fractures can affect the ability to write or type, prepare meals, perform personal care tasks and manage household chores. Fractures of the spine and hip can affect mobility, making activities such as walking, bending, lifting, pulling or pushing difficult. Hip fractures affect mobility severely and often lead to a loss of independence, and reduced wellbeing.

## How much is spent on osteoporosis?

Based on AIHW disease expenditure data, \$306 million of the total direct expenditure allocated to arthritis and other musculoskeletal diseases was attributed to osteoporosis in 2008–09 (the most recent year for which data are available). This expenditure consisted of:

- \$44 million on admitted patient costs (14.4%)
- \$68 million on out-of-hospital-costs (22.2%)
- \$194 million on prescription pharmaceuticals (63.4%).

However, expenditure on osteoporosis is not fully captured in these estimates due to a lack of comprehensive data on health costs associated with fracture. Also, privately purchased health services like physiotherapy and over-the-counter medicines are not captured in these estimates. It is therefore likely that the overall costs associated with osteoporosis are much higher.

## What can I do to help prevent osteoporosis?

Risk factors associated with the development of osteoporosis include increasing age, female sex, family history of the condition, low vitamin D levels, low intake of calcium, low body weight, smoking, excess alcohol consumption, physical inactivity, long-term corticosteroid use and a reduced oestrogen level.

Consult your health professional for specific advice on:

- recommended foods and amounts to include as part of a healthy diet
- achieving a healthy weight (too much weight places a strain on your bones and being underweight is also a risk for osteoporosis)
- avoiding smoking
- appropriate amounts and types of physical activity.

## Where can I find out more?

### AIHW online web pages:

<<http://www.aihw.gov.au/osteoporosis/>>

### AIHW National Centre for Monitoring Arthritis and Musculoskeletal Conditions:

**Tel:** 02 6244 1000

**Email:** [ncmams@aihw.gov.au](mailto:ncmams@aihw.gov.au)

### Arthritis Australia:

<<http://www.arthritisaustralia.com.au/>>

### Osteoporosis Australia:

<<http://www.osteoporosis.org.au/>>

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