

Diagnosing 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.

How is osteoporosis diagnosed?

A doctor will take a medical history, and ask if you have had any fractures. Generally, fractures caused by osteoporosis happen after a small bump or fall, e.g. falling over, stumbling on steps or even coughing.

The doctor will ask about any risk factors you may have, and will measure your height - losing 3cm in height can mean you have had fractures in your spine (these fractures are sometimes painless so you may not have noticed them). Your doctor may also order an X-ray to check for any bone fractures in your spine. Fractures caused by osteoporosis are often called 'crush' fractures or 'wedge' fractures.

Measuring bone strength: Bone Mineral Density scan

One of the most important tests for diagnosing osteoporosis is a bone mineral density scan (BMD). This measures the density of the bones. A BMD can find out if you have osteoporosis and, if so, how severe it is. If you don't already have osteoporosis, it can help predict your risk of developing it. The best way of measuring bone density is the DXA scan (short for dual energy x-ray absorptiometry). It is a quick (about 15 minutes), painless, safe test in which a small amount of radiation (less than a dental x-ray) measures the density of the bones in the spine and hip.

If you are having treatment for osteoporosis, doctors can check how effective the treatment is by measuring your bone density when treatment begins and again after one to two years of therapy. It is important for the repeat test to be done with the same bone density machine if possible.

Who should have a BMD?

Anyone who:

- Has significant risk factors for osteoporosis
- Has symptoms that suggest osteoporosis, e.g. loss of height, 'dowager's hump' in your spine, a fracture caused by a minor accident.
- Is starting treatment for osteoporosis

There is a Medicare rebate for DXA scans if you:

- Have been diagnosed with osteoporosis
- Have had one or more fractures due to osteoporosis
- Are taking corticosteroids
- Are under 45 years of age and haven't had a period for more than 6 months because of low levels of the hormone oestrogen.
- Have chronic kidney and liver disease
- Have rheumatoid arthritis

What do my results mean?

All BMD tests measure the quality of bone in a specific area of the skeleton. The places usually tested are the lumbar spine (mid to lower back) and the femoral neck (the thigh bone near the hip joint).

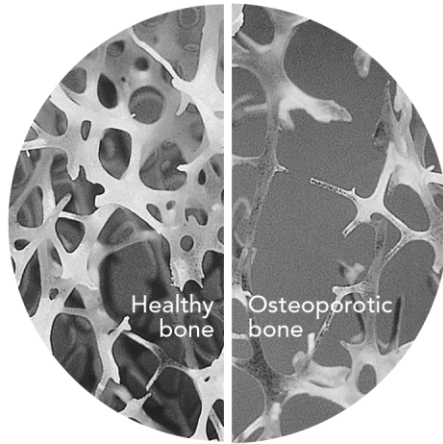
Your results will give you a T-score and a Z-score. The T-score is a measurement of your bone density compared with that of a young, healthy adult woman. A T-score of 0 means your bones are the same density as the average young person. A T-score of -1 or above means your bones are normal. A T-score of -1 to -2.5 means that although you don't have osteoporosis, you do have low bone density (osteopenia) and you should ask your doctor about preventing more bone loss. A T-score of -2.5 or below means osteoporosis and you should talk to your doctor about treatment.

The Z-score compares your bone density with other people in your age group and gender.

Other tests, such as blood tests, may be used to look for other medical causes of osteoporosis or conditions that have similar symptoms to osteoporosis.

A DXA scan is the best way of predicting your chances of future fractures and can help you decide what treatments you may need to consider. The results will be sent to your doctor. You and your doctor will need to discuss what treatment, if any, is needed.

A heel ultrasound test (often done in pharmacies) is not recommended as the best way to diagnose osteoporosis.



Healthy bone

Osteoporotic bone