

Medications and Treatments 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.

Treating osteoporosis

The main goal is to prevent more bone loss and prevent fractures.

Preventing the first fracture is important. However if you do have a fracture, there are treatments that reduce your risk of more fractures.

Ways to maintain bone strength and prevent more bone loss or fractures include:

- A balanced diet, rich in calcium and vitamin D
- A regular exercise program which includes weight-bearing and strength-training exercises
- A healthy lifestyle with no smoking or excessive alcohol

Treatment choices

If you are diagnosed with osteoporosis, and even if you have had fractures, it's never too late to begin treatment. Besides stopping further bone loss, some newer drugs can even improve bone strength. Ask your GP or specialist which is the most suitable medication for you.

Medications

Medications available for treating osteoporosis include:

Bisphosphonates

Bisphosphonates are a non-hormonal drug, which help to increase bone density. There are three main bisphosphonates available on the Pharmaceutical Benefits Scheme (PBS) to treat osteoporosis -

Risedronate (trade name Actonel)

Alendronate (trade name Fosamax)

Etidronate (trade name Didronel)

These drugs increase bone density and reduce the risk of fracture. They also protect people who take corticosteroids from developing osteoporosis.

Studies of people with osteoporosis show that risedronate and alendronate reduce fractures of the spine and hip by about 50%.

Risedronate and alendronate are both taken once a week.

Side effects of bisphosphonates

Side effects are uncommon but may include gastrointestinal problems, abdominal pain, or pain in the muscles or joints, nausea, heartburn, or irritation of the oesophagus (the 'tube' in your body that takes food from your mouth to your stomach).

A rare complication is when the bone in the jaw dies – but this is mainly in people taking very high doses such as doses used to treat cancer.

Selective Oestrogen Receptor Modulators (SERMs)

SERMs are a different type of drug. They are similar to Hormone Therapy (Hormone Replacement Therapy) but, unlike Hormone Therapy, they don't affect the breast or uterus (womb). This means they strengthen bone, but without increasing the risk of cancer of the breast or uterus.

Raloxifene (trade name Evista)

This is the main SERM available to treat osteoporosis. It increases bone density and reduces the risk of fractures in the spine. It may also reduce the risk of breast cancer. Raloxifene is available on the PBS for people who have already had a fracture.

Side effects of SERMs

May increase hot flashes in menopause, and may increase the risk of developing clots in veins.

Calcium Supplements

Women who have gone through menopause, and older men need 1000-1300 mg of calcium daily. You can get this from food by eating 3 to 4 serves of dairy food a day. If you cannot get enough calcium from food, talk to your doctor about whether you need a calcium supplement.

Vitamin D

Vitamin D is important to help the body absorb calcium in the body. It is available from sunlight, some foods and supplements. Some people are more at risk of developing vitamin D deficiency, e.g. older people who are housebound, people in residential care, people with dark skins and people who cover up most of their bodies for religious or cultural reasons. Vitamin D supplements are available from pharmacies and supermarkets. Ask your doctor if you need a vitamin D supplement.

Hormone Therapy

Hormone Therapy (HT) reduces bone loss and increases bone density in both the spine and the hip, and reduces the risk of hip and spinal fractures in women after menopause. HT is usually taken in the form of a pill or skin patch.

However recent studies have linked HT to a small increase in the risk of breast cancer, strokes and heart attacks. For this reason, HT is not recommended for long-term use to prevent osteoporosis and it is no longer listed on the TGA (Therapeutic Goods Association) for the prevention and treatment of osteoporosis.

HT does relieve menopause symptoms and this is currently the main reason to take it.

Parathyroid Hormone – PTH (brand name Forteo)

Teriparatide, a form of parathyroid hormone, is used to treat osteoporosis in women after menopause, and men with a high risk of fractures. It belongs to a new group of drugs called 'bone formation agents', which help new bone to grow. It is taken by a daily injection for up to 24 months. However it is not available on the Pharmaceutical Benefits Scheme (PBS) at present, which means that anyone using the drug has to pay the full cost.

Side effects of PTH

May include nausea, leg cramps and dizziness.

New treatments coming up

***Strontium Ranelate* (trade name Protos)**

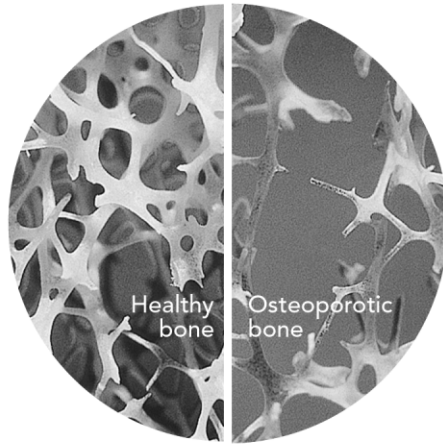
Strontium treats osteoporosis in women after menopause, and reduces the risk of fracture. Taken daily, Protos comes in sachets, which are dissolved in water. It is currently available in Australia but not yet available on the PBS.

***Ibandronate Sodium* (trade name Boniva)**

Ibandronate is a newer bisphosphonate to prevent and treat osteoporosis in women after menopause. Taken once a month, it needs to be taken on the same day each month. Ibandronate reduces bone loss, increases bone density and reduces the risk of spine fractures. It is likely to be available in Australia in 2006.

Remember to discuss any new medications with your doctor and pharmacist and make sure you know:

- what the drug is called
- why you are taking it
- how to take it
- any possible side effects
- what to do if any side effects occur



Healthy bone

Osteoporotic bone