

# Osteoporosis Treatment and Bone Health

Diagnosed osteoporosis requires prescribed treatment to protect bone health. Your medication will be prescribed by a GP or specialist. In Australia there are a range of treatment options available. You and your doctor will determine the best treatment for you, taking into consideration other medical conditions. Your doctor can also advise if your medication is subsidised by the Pharmaceutical Benefits Scheme (PBS).

# **How Do Osteoporosis Treatments Work?**

Most medications function by slowing or blocking the activity of bone removing cells (called osteoclasts) while leaving bone forming cells (osteoblasts) at work. This helps improve bone strength over time. Osteoporosis medications are commonly prescribed over many years and must be approved by the Federal Government for use in Australia. It is recommended you take your medication as directed to receive the full benefit. It is also recommend people with diagnosed osteoporosis complement medication use with the recommended calcium, vitamin D and exercise levels.

## **PBS Subsidies**

PBS subsidies apply to:

- People who had a fracture due to osteoporosis
- Anyone over 70 years with low bone density
- People with low bone density taking corticosteroids (eg: prednisone or cortisone) at a dose of 7.5 mg for at least 3 months

# **Types of Medications**

The following medications are commonly prescribed in Australia to treat osteoporosis and have strong evidence for reducing risk of fracture.

Type of Medication	Dosage
Bisphosphonate This medication can slow bone loss, improve bone density and reduce the risk of fractures	<ul> <li>Tablets (weekly or monthly)</li> <li>Alendronate (brand name Fosamax or other generic brands)</li> <li>Risedronate (brand name Actonel EC or other generic brands)</li> <li>Annual intravenous infusion</li> <li>Zoledronate (brand name Aclasta)</li> </ul>
Denosumab This medication can slow bone loss, improve bone density and reduce risk of fractures	6-monthly injection • Denosumab (brand name Prolia))

### **Other Medications**

The following medication options can be prescribed based on individual patient needs.

#### MHT (Menopausal Hormone Therapy)

MHT (formerly known as HRT) helps to slow bone loss, reducing the risk of osteoporosis in women around the time of menopause or after menopause. It is safe and effective for most women under the age of 60 who have osteoporosis and also need hormonal treatment to relieve the symptoms of menopause. It may also be prescribed for women under 60 who are unable to take other osteoporosis medicines. It is particularly useful for women who have undergone early menopause (before 45 years of age).

#### **Selective Oestrogen Receptor Modulators (SERMS)**

Raloxifene (brand name Evista)

This medication is taken daily and acts on bones in a similar way to that of the hormone oestrogen, slowing bone loss and reducing the risk of spinal fractures in women who have been through menopause. The PBS subsidy applies for post-menopausal women who have already had a fracture due to osteoporosis.





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#### **Restricted use medication**

Teriparatide (brand name Forteo) self-administered daily injection for up to 24 months.

This medicine must be prescribed by a specialist and is initiated in people with severe osteoporosis when other osteoporosis medication has not worked. Once the course of the treatment is completed another type osteoporosis medication will be commenced to ensure the new bone formed is maintained. The PBS subsidy is for 18 months for people with very low bone density who have experienced a minimum of two fractures, with one of the fractures occurring whilst on another type of osteoporosis medication.

Romosozumab (brand name Evenity) administered once a month by a doctor with 2 injections (during the same visit), for 12 months.

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## Side Effects

Osteoporosis medication is commonly taken over many years. Side effects from osteoporosis medications are rare and it is recommended you speak to your doctor if you have any concerns or queries. Anyone experiencing a suspected side effect should contact their doctor. Your medication will come with a list of potential side effects. If you experience any side effect you need to inform your doctor.

# **Other Common Risk Factors**

Review other common risk factors for osteoporosis. If any risk factors apply to you – discuss these with your doctor.

Personal History	Medical Conditions	Medications
Previous fracture (from minor bump or fall)	Coeliac disease	Certain treatment for breast cancer
Family history of osteoporosis (parent/ sibling)	Overactive thyroid or parathyroid	Certain treatment for prostate cancer
Loss of height (3 cm or more)	Rheumatoid arthritis	Glucocorticoids (steroids)
Smoking/ excessive alcohol	Early menopause/Low testosterone	Anti-epilepsy treatment
Inadequate calcium, vitamin D or lack of exercise	Chronic kidney disease or liver disease	
Age 70 years and over	Diabetes	

### Calcium, Vitamin D. Exercise

Take simple steps to help support your bone health.

Focus On	Recommended
Calcium	<ul> <li>1,000 mg per day from the diet</li> <li>Increasing to 1,300 mg for women over 50 years and men over 70 years</li> <li>If dietary intake is low a supplement may be required</li> </ul>
Vitamin D	<ul> <li>Limited sun exposure – in summer a few minutes per day, in winter slightly longer</li> <li>Avoid UV index above 3</li> <li>If vitamin D deficiency is confirmed by your doctor a supplement may be required</li> </ul>
Exercise	Specific mix of weight bearing, resistance training and balance exercises



