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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	Tablets (weekly or monthly) • Risedronate (brand name Actonel EC or other generic brands) • Alendronate (brand name Fosamax or other generic brands) Annual intravenous infusion • Zoledronate (brand name Aclasta)
Denosumab This medication can slow bone loss, improve bone density and reduce risk of fractures	6-monthly injection • Denosumab (brand name Prolia, Corora, Jubbonti, Stoboclo) NOTE: Patients on denosumab should continue with the treatment as advised by their doctor. It should not be stopped without discussion with your doctor, and if discontinued there is a relatively fast drop off in the benefit of this treatment and therefore it is generally recommended another osteoporosis treatment be substituted to maintain bone protection

For Very High Fracture Risk

These treatments are initiated by a specialist and follow up scripts can be prescribed by a GP.

Type of Medication	Dosage	
Anabolic This medication builds new bone and slows bone loss to reduce fracture risk	Monthly injection – up to 12 months use • Romosozumab (brand name Evenity)	Daily self-injection – up to 18 months use • Abaloparatide (brand name Eladynos)
	NOTE: Once course of treatment is completed, another type of osteoporosis medication will be commenced to ensure the new bone formed is maintained	

PBS Criteria for Very High Risk patients

Adults matching the following criteria can receive treatment on the PBS.

Patients must not have received any PBS-subsidised osteoporosis treatment previously, and be at very high risk of fracture, determined by a Bone Mineral Density (BMD) T-score of -2.5 or less, with the individual having either:

- A hip fracture **or** a spinal fracture (in the previous 24 months)
- **OR** 2 minimal trauma fractures (with one occurring in the previous 24 months).

Other Medications

These treatments can be prescribed based on individual patient needs.

Type of Medication	Desctription
Menopausal Hormone Therapy (MHT)	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 daily tablet medicine 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. PBS subsidy applies for post-menopausal women who have already had an osteoporosis fracture.

Osteoporosis Treatment and Bone Health cont.

Restricted Use Medications

These treatments can be prescribed as second line treatment, if other osteoporosis medication has not worked.

Type of Medication	Desctription
Teriparatide (brand name Terrosa) *Dose: daily self-injection, PBS use for up to 18 months*	This medicine must be prescribed by a specialist. PBS subsidy is 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) *Dose: 2 injections once a month by a doctor (during the same visit), PBS use for up to 12 months.*	This medicine must be initially prescribed by a specialist, and follow-up scripts can be from a GP. PBS subsidy is for people with very low bone density (T-score -3 or less) who have experienced a minimum of two fractures, with one of the fractures occurring whilst on another type of osteoporosis medication.
Abaloparatide (brand name Eladynos) *Dose: daily self-injection, PBS use for up to 18 months.*	

NOTE: Once the course of treatment is completed another type of osteoporosis medication will be commenced to ensure the new bone formed is maintained.

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 regarding your medication. Anyone experiencing a suspected side effect should consult their doctor. Your medication will come with a list of potential side effects if you experience any side effect you will need to inform your doctor.

New information about dental work while on osteoporosis treatment: *here*.

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