

Osteoporosis in men



Osteoporosis, traditionally regarded as a disease affecting women, is now being increasingly recognised in men. Osteoporosis develops less often in men because they have larger skeletons, bone loss starts later and progresses more slowly. However, men are experiencing increasing rates of hip fractures which is only partly due to an increase in longevity. It is projected that by 2010, in Australia, one-third of all hip fractures will occur in men and will cost an estimated \$300 million annually. Up to 40% of men living in residential care will sustain a hip fracture, and 20% of those men will sustain another fracture, often within that first year. Also, more men than women die in the year following a hip fracture. Up to 20% of men die within that first year. Therefore, as for women, it is important to identify men who sustain osteoporotic hip fractures so they can receive treatment to prevent further fractures.

Osteoporotic fractures can also occur in the spine. Many spinal fractures are painless and height loss may be the only physical sign. Spinal deformity rates in men are slightly less than in women but they occur earlier, when men are in their 40s and 50s.

The majority of men with osteoporosis are not being identified. Men sustaining fractures due to osteoporosis need to be both recognised and treated appropriately.

Risk factors for Osteoporosis in Men

Several risk factors have been linked to osteoporosis and men:

- Increased life expectancy for men (about 76-78 years) means they are more likely to develop more illnesses that will contribute to bone loss, fractures and falls.
- It is estimated that 30-60% of men who have spinal fractures have another illness that is contributing to their bone loss. It is therefore

important to eliminate underlying medical causes in men with osteoporosis.

- Some hormones, for example parathyroid hormone (PTH) and testosterone, are also considered risk factors for hip fractures.
- Smoking is considered a contributing factor for osteoporosis in men.
- Low levels of Vitamin D.
- High alcohol consumption.
- Corticosteroid use.

These risk factors should be identified and treated (Table 1). Investigations may be needed to exclude associated medical conditions.

Osteoporosis Management in Men

There are several simple measures to help prevent osteoporosis.

I. General Preventative Measures

- Healthy diet
- Adequate daily calcium intake.
- Regular weight-bearing exercise for children and adolescents.
- Exercise 3 times a week, for men over 40, that includes resistance training to improve muscle mass, strength and balance.
- Adequate intake of vitamin D, especially in men aged over 65.
- No smoking.
- Moderate alcohol and coffee intake.
- Falls prevention programmes for elderly men.

II. Medical Treatment

For men that require medication, there are several types of treatment available for osteoporosis. In comparison with women, research on medications in men is limited.

Calcium

In itself, calcium does not prevent fractures. The recommended daily intake is approximately 800mg for men and 1000mg for men with osteoporosis. This can be easily obtained from the diet through dairy and calcium-enriched soy products. On average, three serves per day of dairy products should provide an adequate dietary calcium



intake. If one can't obtain enough dietary calcium, a large variety of calcium supplements (containing calcium citrate and calcium carbonate) are available. There is some evidence that calcium acts better when taken at night. Calcium may cause mild constipation, abdominal bloating or upper gastrointestinal upset. It should be avoided in patients with a history of kidney stones. The need for calcium supplements should be discussed with your doctor first.

Vitamin D

Vitamin D deficiency is also recognized as a risk factor for osteoporosis. Vitamin D can be obtained through the diet from foods such as oily fish, margarine, eggs and liver. Vitamin D



supplements can be taken orally if necessary - 800IU Vitamin D is recommended. Some studies have shown that Vitamin D supplements decrease the numbers of hip fractures.

Men who have limited exposure to sunlight, either by being housebound or in residential care, may be Vitamin D deficient. They could benefit from long-term Vitamin D supplementation but more studies are needed in this area.

Bisphosphonates

Bisphosphonates are now the treatment of choice for men with osteoporosis. Currently, several bisphosphonate medications are available. They are risedronate (Actonel), alendronate (Fosamax) and etidronate (Didronel). The need for medication must always be discussed with your doctor.

Bone Formation Stimulating Agents

In the future, parathyroid hormone (PTH) will most likely be available in Australia for the treatment of osteoporosis. Due to its expense, it will probably initially be used only for men who continue to experience fractures despite medication or who have extremely low bone density.

Conclusion

For many men with osteoporosis, the problem is unrecognised. And, the majority of men with fractures in Australia are not being treated. Doctors and the general public need to be aware that osteoporosis can affect men and that it is a treatable condition. Height loss is a common sign of spinal osteoporosis. In men with osteoporosis, it is very important to exclude secondary causes. An adequate calcium intake, regular weight-bearing exercise and normal vitamin D levels are important, particularly with increasing age. The medical treatment of choice for osteoporosis in men is the bisphosphonates. In the future, it is likely PTH will be used to treat men with severe osteoporosis.

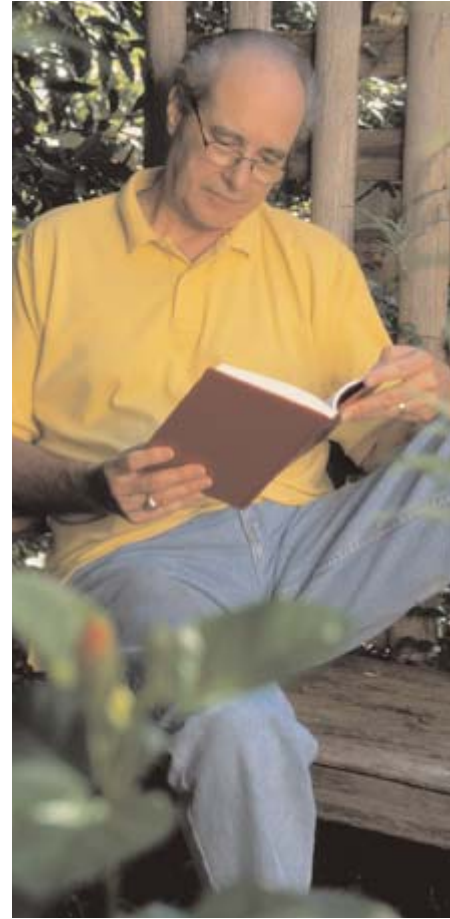


Table 1. Factors and medical conditions associated with an increased risk of osteoporosis in men

- Increasing age
- Family history of osteoporosis
- Previous fracture
- Low calcium intake
- Low body weight
- Eating disorders associated with decreased weight
- Immobilisation
- Lifestyle factors including smoking, excessive alcohol use, lack of exercise or excessive exercise
- Corticosteroid therapy for more than 3 months
- Hypogonadism
- Cushing's syndrome
- Chronic liver and kidney disease
- Rheumatoid arthritis
- Thyroid Disease

*Adapted from "Management of Osteoporosis in Men"
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written for Osteoporosis Australia ■*