AUSTRALASIAN MENOPAUSE SOCIETY
EMPOWERING MENOPAUSAL WOMEN

Menopause and bone health – decreasing the risk of osteoporosis

Osteoporosis is a common condition whereby individuals have weakened bones that can break (fracture) easily. Bone loss and fractures affect quality of life and can lead to other health conditions.

Oestrogen plays an important role in maintaining bone strength, with peak bone mass reached at around 30 years of age. During the time of menopause, oestrogen levels drop and bone loss occurs.

Half of women 60 years of age or older have lower than normal bone density (osteopenia), while approximately one quarter have the more severe bone loss seen in osteoporosis. Women who have undergone a premature menopause (menopause before age 40) are at higher risk of osteoporosis.

Diagnosis

Osteoporosis does not have any symptoms and unfortunately is often diagnosed after a bone has broken. Low bone density can be diagnosed with a quick and painless bone density or DEXA scan. The scan measures the 'thickness' or strength of your bones at the hip and spine.

Your doctor can assess your risk for osteoporosis and refer you for a bone density scan.

Risk factors for osteoporosis

During the menopausal transition and after menopause, a range of factors can increase your risk of osteoporosis.

Personal circumstances that can increase your risk include:

- a family history of osteoporosis
- a previous fracture
- smoking
- alcohol intake of more than 2 standard drinks per day
- insufficient calcium in your diet
- low levels of vitamin D
- lack of exercise.

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Medical conditions that can increase your risk include:

- early menopause
- diabetes
- rheumatoid arthritis
- Coeliac disease, or other intestinal conditions that affect food absorption
- Thyroid or parathyroid conditions

Medications that can increase risk include:

- some treatments for breast cancer which block oestrogen
- steroid treatments such as prednisone or cortisone
- some treatments for epilepsy.

Lifestyle changes and managing risk of osteoporosis

Some risk factors can be controlled though lifestyle changes and this will help reduce your risk of osteoporosis. These include:

- **Adequate calcium in your diet:** the recommended intake is 1300mg/day for women age 50 years and over, which is equivalent to 3–4 serves of dairy per day. For those who cannot reach this intake with food, calcium supplements are an option
- **Vitamin D:** Vitamin D is important for absorption of calcium. Vitamin D levels increase upon exposure to sunlight. A few minutes of exposure in summer (avoiding when the UV Index is above 3), with slightly longer times needed in winter is recommended by Healthy Bones Australia. Some patients may need Vitamin D supplements
- **Physical activity:** weight-bearing activity can help you to maintain bone mass. Useful activities include weight-bearing aerobic exercise (walking, stair climbing, jogging, volleyball, tennis and dancing), strength/resistance exercises and balance exercises
- **Stopping smoking**: smokers are at higher risk of bone loss and fractures
- **Avoiding excess alcohol:** more than 2 standard drinks of alcohol per day is associated with an increased risk of fracture.

Medications for osteoporosis

Medications for osteoporosis aim to slow or prevent bone loss and improve bone density over time to reduce the risk of fractures.

Some treatments are commonly used for osteoporosis and others have restricted use for people with severe osteoporosis. Medications are prescribed based on the specific circumstances of each person, so it is best to speak with your doctor about your treatment options and any potential side effects of medications.

The broad classes of medications include:

Antiresorptive medications

These medications slow bone loss, improve bone density and decrease the risk of fractures. Included in this class are:

- **Bisphosphonates**: these medications can be given by tablet form but are also available as in intravenous infusion.
- **Denosumab:** an injection is given every 6 months. Importantly Denosumab must be given without delay at 6-month intervals. Failure to do so may result in spinal fractures.

Hormone based therapies

ncluded in this group is menopausal hormone therapy (MHT). MHT reduces bone loss and risk of fracture. Tibolone and Raloxifene are synthetic medications which mimic the action of oestrogen and are also used to treat osteoporosis. MHT is most suitable for use in women under age 60 and has the added benefit of relieving the symptoms of menopause such as hot flushes.

Anabolic (bone building) medications:

These agents are effective in building new bone. At present PBS use is restricted to patients with severe osteoporosis who have had a fracture while on other treatment for osteoporosis.

Where can you find more information?

Your doctor can help with any concerns about the weakening of bones and osteoporosis. Your doctor can tell you about the changes in your body and offer options for maintaining strong bones and managing symptoms. Other fact sheets relevant to osteoporosis and menopause include:

- Decreasing the risk of falls and fractures before, during and after menopause
- Menopause before 40 and spontaneous premature ovarian insufficiency
- Early menopause – chemotherapy and radiation therapy
- Maintaining your weight and health during and after menopause
- Lifestyle and behaviour changes for menopausal symptoms

Other resources:

- Healthy Bones Australia
- Physical activity and exercise guidelines for all Australians

If you have any concerns or questions about options to manage your menopausal symptoms or health, visit your doctor or go to the Find an AMS Doctor service on the AMS website.