

## No Bones about Osteoporosis

**Osteoporosis is an extremely common condition. Osteoporotic fractures can be painful. But, osteoporosis itself has no symptoms. A person may not know that they have osteoporosis until their bones become so brittle that a strain or bump causes a fracture which would not have occurred in someone with healthy bone density.**

### What is osteoporosis?

Osteoporosis (which literally means 'porous bones') is a condition characterized by loss of bone density, and weakening of bones. In many cases, bones weaken as a result of low levels of calcium, phosphorus and other minerals in the bones. When weak bones are stressed or injured, they often fracture, commonly in the upper spine, the hip or the wrist. Although it is commonly considered to be a disease of old age, loss of bone density can begin at a much younger age, getting steadily worse year by year. That's why it is important to be aware of the condition, and take steps to prevent it.

### Am I at risk of developing osteoporosis?

Ageing is the main risk factor for osteoporosis and associated fractures. Our bone density peaks at around the age of 25. After this, bone gradually loses density and strength. In women, the rapid reduction of oestrogen during menopause can cause bone loss of up to two percent per year. Other increased risk factors include: being of Asian or Caucasian race, having a low body weight, recent weight loss, a history of fractures, low levels of calcium and Vitamin D in the diet, tobacco use, alcohol abuse, extended use of certain medications (such as corticosteroids or thyroid medication), and lack of exercise.

### How can I take action?

Every comprehensive osteoporosis management plan should include physiotherapy. Bone is a living tissue that can be built up through exercise, so a physiotherapist will work with you to design a personal exercise program that suits you. They will provide you with a range of exercises or physical activities to do at home, and give you advice on making exercise and everyday activity safe for you.

Weight bearing exercises have been shown to contribute to bone health, helping to improve bone mass, or slow the rate of loss of bone density. Weight bearing exercise means any exercise that is done on your feet, so that gravity is exerting a force. Some examples of weight bearing activities include walking, dancing, tai chi, aerobics classes, and weight training.

A physiotherapist can advise on the optimum 'impact' for you.

Balance training is also important to improve mobility and reduce the risk of falls. Personally tailored exercise programs, such as those set out for you by a physiotherapist, have been shown to be more effective than general programs at helping people regain good balance.

If you have already fractured a bone, physiotherapists can also give you specialized advice on pain relief and mobility.

**Consult your physiotherapist today about an exercise program to prevent, or assist with osteoporosis.**



### This Way Up ...

Falls threaten the health, wellbeing and independence of older people. But, falling is not an inevitable part of ageing. Unsteady walking, poor balance and weak legs have all been identified as key risk factors for falls.

It is common for people who feel unsteady on their feet to do less walking. Over time this actually increases the risk of falling because muscles get weaker, joints get stiffer, and balance gets worse.

#### Staying active the best prescription

There is no doubt that the most important thing that older people can do to prevent falls is to maintain physical activity. Studies have shown that exercise significantly reduces the risk of falling when combined with other falls prevention methods (such as a review of medication, and a safety evaluation of the home).

Research findings reinforce the role of physiotherapy-prescribed exercise in reducing falls and injuries for older people living at home. The physiotherapists in our practice are highly skilled in prescribing home-based programs of strength and balance retraining exercises.

#### Exercise helps posture & balance

People with better posture, better balance and stronger muscles are much less likely to fall and therefore less likely to be injured. For example, women who sit for more than nine hours a day are more likely to have a hip fracture than those who sit for less than six hours a day. Special exercise programs, prescribed by physiotherapists, can reduce the risk of falling by about 20% and can also decrease serious injury from falls. These are programs that are tailored to each older person's needs, and include progressive muscle strengthening, improving balance and walking.

#### Tips to prevent falls & improve balance

The physiotherapists in this practice suggest:

- It's never too late to start exercising! Balance is a skill you can keep or recapture at any age.
- Exercise regularly - this keeps the balance 'tuned up' and bones and muscles strong.
- Exercise within your limits. Your physiotherapist will tailor a specific exercise program for you.
- Maintain good posture - good spinal care throughout your life will assist your balance.
- Walking aids such as sticks and frames should be correctly prescribed and fitted.
- Choose proper footwear - firm fitting, flat shoes improve your stability.
- Take extra care on uneven ground - surfaces such as gravel and grass are more challenging to balance.
- Good vision helps your balance. Be careful if lighting is poor and avoid walking in the dark.
- Be aware of home hazards - slippery mats, dangling electrical cords and clutter can turn your home into an obstacle course.
- Have a 'Falls Emergency Plan' - know how to summon help if you do have a fall. Ask your physiotherapist to show you the easiest way to get up off the floor.

**Studies have shown that falls and injury rates in older people can be reduced by a program of strength and balance retraining exercises prescribed by physiotherapists.**

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