## **Osteoporosis Patient Education**

**Osteoporosis** is a common condition affecting over 1 million Australians, in which bones become fragile and brittle, leading to a higher risk of fractures than in normal bone.

**Women** are at a greater risk of developing osteoporosis because of the rapid decline in oestrogen levels during menopause. When oestrogen levels decrease, the bones lose calcium and other minerals at a much faster rate. As a result bone loss of approximately 2% per year occurs for several years after menopause.

In general women who are slim, white, smoke, do not exercise, have inadequate caloric (and calcium) intake and have irregular menstrual periods or early menopause, are at higher risk of developing osteoporosis.

**Research** has shown that regular weight training or weight bearing exercise such as jogging, tennis or aerobics (one hour, three times each week) increases or maintains bone density.

Swimming and cycling are weight-supported sports and while excellent for aerobic fitness are not thought to be as effective in maintaining bone mass or preventing bone loss.

Regular exercise also improves balance, coordination and agility, which may help to prevent falls and subsequent fractures.

## Always consult with your doctor, physiotherapist or health care

**professional** before you decide on an exercise program. Factors that need to be considered include:

- Your age
- The severity of your osteoporosis
- Your current medications
- · Your fitness and ability
- Other medical conditions such as cardiovascular or pulmonary disease, arthritis, or neurological problems
- Whether improving bone density or preventing falls is the main aim of your exercise program.

A combination of weight-bearing aerobic and muscle-building (resistance) exercises is best, together with specific balance exercises.

## Exercises that people with osteoporosis should avoid

A person with osteoporosis has weakened bones that are prone to fracturing. They should avoid activities such as:

- Exercises that involve loaded forward flexion of the spine such as abdominal sit-ups
- · Exercises that increase the risk of falling
- Exercises that require sudden, forceful movement, unless introduced gradually as part of a progressive program
- Exercise that requires a forceful twisting motion, such as a golf swing, unless the person is accustomed to such movements.

## Things to remember

- Osteoporosis is characterized by the loss of calcium in a person's bones, which makes them more likely to fracture (break).
- Exercising regularly reduces the rate of bone loss and conserves bone tissue, lowering the risk of fractures.
- Exercise also helps reduce the risk of falling.
- Exercise that is too vigorous may increase the risk of fractures.
- See your doctor, physiotherapist or other healthcare professional for expert advice.

Source: Betterhealth.vic.gov.au

Sports Medicine Australia - Women in Sport Fact Sheet

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