



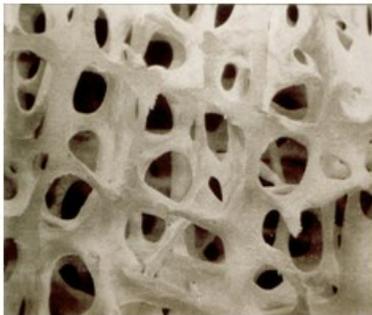
# Build Stronger Bones Through Physical Activity

It can happen without warning...you bend over to weed the garden and feel a sharp pain in your side. After visiting the doctor, you learn that you have fractured a rib. If you are an older woman, this fracture is most likely the result of osteoporosis. <sup>1</sup>

## What is Osteoporosis?

Osteoporosis, often known as the “silent thief”, affects 1.4 million Canadians at any age. If not prevented, or left untreated, osteoporosis can progress painlessly until a bone actually breaks, hence “silent thief”. One in three women and one in five men will suffer from an osteoporotic fracture during their life time.

Osteoporosis means “porous bones”. It is a condition that is characterized by low bone mass and deterioration of bone tissue. Broken bones or fractures occur typically in the wrist, hip, and spine. Any bone can be affected but these three areas are the most common. <sup>2</sup>



Healthy Bone



Osteoporotic Bone

## Lifestyle Interventions

- *Limit alcohol intake*
- No smoking
- Engage in regular weight-bearing exercise
- Exercise regularly, 3-5 times a week <sup>1</sup>



## Risk Factors For Osteoporosis:

- **Female**
- **Small bones**
- **Underweight**
- **Increased age**
- **Low calcium intake, both past & present**
- **Inadequate vitamin D intake**
- **Cigarette smoking**
- **Excessive alcohol intake**
- **Estrogen deficiency or early menopause in women**
- **Use of certain medications such as corticosteroids**
- **Decreased testosterone levels in men <sup>1</sup>**

# Exercising with Osteoporosis

**Strength training** - Examples include using free weights, weight machines, therabands/tubing or your own body weight for resistance training and resistance training in the water. These help to strengthen bones and muscles which help to slow mineral loss. Also, exercises that strengthen the upper back may improve your posture which will help to reduce stress on the bones and maintain bone density. <sup>3</sup>

**Flexibility training** - This type of training is extremely important because it helps to increase mobility of the joints, which prevents muscle injury. It is best to do stretches after your muscles are warmed up.

Stretches should be done slowly and gently, without bouncing. Try to avoid stretches that cause you to flex your spine or cause you to bend at the waist because this may put extra stress on the spine. <sup>3</sup>

***Make sure to consult a physician before starting any new form of physical activity.***

**Weight-bearing aerobic training** - Examples include walking, dancing, gardening, and low impact aerobics. These types of exercises are excellent for slowing mineral loss because they work directly on the bones of the lower spine, hips, and legs. <sup>3</sup>

## **Nutritional interventions**

- Adequate calcium intake. Osteoporosis Canada recommends that adults age 50 and over consume 1200 mg of calcium each day.
- Adequate vitamin D is necessary for the absorption of calcium. Individuals should be consuming at least 800-2000 IU of Vitamin D daily. <sup>1</sup>

**Consult your family physician or pharmacist before starting any supplements.**



**\*For more information or resources for Older Adults, contact Forever...in motion at (306)844-4080**

## **References**

1..Miller, C. (2004). *Nursing for wellness in older adults: theory and practice* (4th ed.). Philadelphia, PA: Lippincott Williams & Wilkins. 2.Osteoporosis Canada. (2007). *About osteoporosis: what is osteoporosis*. Retrieved March 19, 2008 from <http://www.osteoporosis.ca> 3. Mayo Clinic: Tools for healthier lives. (2006). *Exercising with osteoporosis: stay active the safe way*. Retrieved November 20, 2007 from <http://www.mayoclinic.com/print/osteoporosis/HQ00643/METHOD=print>