

# Osteoporosis

Many hip fractures are related to osteoporosis (where your bones get thinner and weaker). People who've had a fracture are at higher risk of another. For more information, visit Osteoporosis Canada's website at [www.osteoporosis.ca](http://www.osteoporosis.ca), or call toll-free at 1-800-463-6842.

## What is Osteoporosis?

*What characterizes this condition?*

- Bone loss, which has no symptoms. A hip fracture may be your first sign of osteoporosis.
- Everyone starts losing bone in their mid-30s. With osteoporosis, bone loss occurs faster.
- Osteoporosis raises the risk of broken bones, mainly in the hip, spine and wrist.

*What's the difference between osteoporosis and osteoarthritis?*

- Osteoporosis: bone disease.
- Osteoarthritis: disease of the joints and surrounding tissue.

*Is osteoporosis a "woman's disease"?*

- No. Men do have more bone mass than women. Women also lose bone faster as they near menopause. However, osteoporosis is a serious health issue for everyone.
- Osteoporosis Canada says at least 33% of women and 20% of men will break a bone due to osteoporosis.

*How do I get an assessment?*

- Most fracture patients don't get diagnosed or treated properly for the condition.
- Tell your doctor about:
  - ▶ Your hip fracture;
  - ▶ Any other bones you've broken as an adult;
  - ▶ Loss of height; and
  - ▶ Previous falls.

- Ask for a:
  - ▶ Height measurement;
  - ▶ Spine X-ray if you've lost height;
  - ▶ Falls assessment;
  - ▶ Fracture risk assessment (called FRAX or CAROC); and
  - ▶ Bone mineral density test (a simple X-ray).

## **Drug Treatments**

Drug treatments can increase bone density and reduce the risk of fractures. Review the options with your doctor. You may need to explore several treatments to find what works best.

### *Bisphosphonates*

- Family of drugs for men, post-menopausal women, and anyone using steroid medications.
- Reduces the risk of spinal fractures.
- Certain types also reduce the risk of hip and other fractures.

### *SERMs*

- Family of drugs for post-menopausal women.
- Prevents spinal fractures.

### *Hormone Therapy or estrogen/progesterone*

- Option if you also want relief from menopause symptoms.
- Can prevent spine and hip fractures.

### *Calcitonin*

- Nasal spray that prevents (or reduces the pain of) spinal fractures.
- Treats osteoporosis in post-menopausal women.
- Can also treat osteoporosis in men and non-pregnant, pre-menopausal women.

### *Denosumab*

- Bone metabolism regulator for post-menopausal women.
- New class of treatment that reduces the risk of fractures at the spine, hip and other sites.

### *Parathyroid hormone (PTH)*

- New class of treatments called bone formation agents.
- Injections can cut the risk of vertebral and other fractures.
- For men and post-menopausal women with severe osteoporosis, where other therapy hasn't worked.

## **Nutrition – Building Stronger Bones**

### *Calcium*

- We absorb calcium from food. Getting enough can slow bone loss and lower the risk of fracture.
- Why do we need calcium from food? So our bodies don't dip into our calcium reserve – our bones. When this happens, bones become thinner and more fragile.
- Dairy products like milk, cheese and yogurt are excellent sources. They contain high amounts of calcium that the body easily absorbs. One glass of milk has 300 mg of calcium. That's one-quarter of the daily requirement if you're 50-plus.
- Skim milk provides as much calcium as whole milk, with less fat and cholesterol.
- Besides dairy, other calcium sources include:
  - ▶ Sardines and canned salmon;
  - ▶ Leafy green vegetables (broccoli, kale, bok choy, okra, turnip greens, collard greens);
  - ▶ Dried figs;
  - ▶ Baked beans (canned), soybeans and other cooked beans;
  - ▶ Calcium-fortified beverages and foods (e.g. instant oatmeal and cookies); and
  - ▶ Tofu processed with calcium sulfate.
- Some people find it difficult to get the daily recommended amounts of calcium through diet alone. Consider a combination of foods rich in calcium and calcium supplements.

## *Vitamin D*

- Vitamin D is essential for several reasons:
  - ▶ It helps prevent osteoporosis;
  - ▶ It may reduce other health risks like diabetes and immune system disorders; and
  - ▶ It increases calcium absorption.
- Vitamin D is found in very few foods:
  - ▶ Fortified milk, margarine, orange juice, soy and rice beverages;
  - ▶ Egg yolks;
  - ▶ Chicken livers; and
  - ▶ Small amounts in fatty fish and fish oils.
- It's hard to get enough vitamin D from food alone. Talk to your doctor about supplements.

## *Protein*

- We need protein to build and heal all body tissue.
- Protein-rich foods include meat, fish, poultry, eggs, dairy, legumes and nuts. These foods also contain important vitamins and minerals for good health.
- A low-protein diet is bad for our bones. Women and seniors especially don't get enough protein.
- *Canada's Food Guide* recommends 2-3 servings a day of 2-3 oz. (57-85 grams) of meat or alternatives. For more information on healthy eating, see the section in this booklet on *Nutrition*.

## **Impact of Physical Activity**

Here are three ways that physical activity helps treat osteoporosis and prevent future fractures:

1. Improves bone mass: Physical activity, combined with proper nutrition, helps us to have enough peak bone mass when we're young. It also helps to maintain that bone mass as we age. When we're active, we put added force on our bones which helps to build and keep their strength.

2. Improves balance and coordination, reducing our risk of falls and possible fractures.
3. Reducing pain is another benefit of improved strength, flexibility and posture. It also helps people with osteoporosis to do daily tasks more easily.

Being active improves your general health, and can increase your sense of well-being and quality of life. See the sections in this booklet on *Getting Active* and *The Role of Exercise*.

### **Key Things to Remember**

- Many hip fractures are related to osteoporosis.
- With osteoporosis, your bones become thin and porous which increases the risk of broken bones, particularly in the hip, spine and wrist. Osteoporosis Canada says at least one in three women and one in five men will experience a fracture because of osteoporosis.
- Bone loss occurs without symptoms. Get a medical assessment to find out if you have osteoporosis. It can help you make decisions that may prevent fractures or more bone loss.
- You can treat osteoporosis with diet, physical activity, and prescription medication.