



Division of Aging and Seniors

# Osteoporosis

## Info-Sheet for Seniors

In Canada, about one out of four women and one out of eight men over 50 years of age have osteoporosis.

This disease can have a devastating effect on people's lives, causing painful fractures, disability or deformity. Unfortunately, there's no evident warning sign until a fracture occurs.

### What is osteoporosis?

Bone is a living tissue, constantly renewed through a natural process in which new bone replaces old bone. As we age, the process becomes less efficient and we begin to gradually lose bone. In someone with osteoporosis, bone loss occurs more rapidly, causing the bones to become very thin and weak over time.

When bones become severely weakened by osteoporosis, simple movements – such as bending over to pick up a heavy bag of groceries or sneezing forcefully – can lead to fracture. Wrist, spine and hip fractures are the most common fractures associated with osteoporosis.

Hip fractures related to osteoporosis are a serious problem in seniors, resulting in death in up to 20 percent of cases and disability in up to 50 percent of those who survive. Following a hip fracture, many seniors can no longer live independently, and may require nursing home care.

### Who is at risk?

Women are especially at risk of osteoporosis because of the important role that the hormone estrogen plays in keeping their bones healthy. At menopause, estrogen levels fall dramatically, and many women experience an accelerated rate of bone loss.

Although men usually have a greater bone mass than women, they are not immune. As they age, they also lose bone mass and should follow the lifestyle changes recommended to prevent or delay osteoporosis.

Even though no single cause for osteoporosis has been identified, certain factors seem to play a role in the development of the disease (listed on the next page). If you have some of these risk factors, you should speak to your doctor about getting a bone density test and take preventive action to reduce the risk.

**It's possible to prevent, delay or reduce bone loss through healthy habits.**



## The risk factors

Some risk factors present a higher risk than others. They are indicated by \*.

- slender, small bones
- low calcium diet
- low physical activity
- ovaries removed, or menopause before age 45\*
- past menopause
- vitamin D deficiency
- cigarette smoking
- too much caffeine or alcohol intake
- family history of osteoporosis\*
- excessive use of some medications (e.g. cortisone, prednisone, anticonvulsants)\*
- previous fracture\*

## Prevention

### *Include calcium in your diet*

Individuals over the age of 50 need 1000 to 1500 mg of calcium each day. As you age, your body doesn't absorb calcium as well, so it's very important to have calcium-rich foods in your diet. If you don't eat enough calcium-rich foods, you may require a calcium supplement.

### *Get enough vitamin D*

Calcium is not easily absorbed by the body without vitamin D. Sunlight is the main source of natural vitamin D. Most seniors don't get enough of this vitamin, and a daily supplement of 400 to 800 IU may be recommended (especially in Canada where there's little sun intensity during the winter months).

## *Calcium daily goal: 4 servings*

<b>Food</b>	<b>Servings equiv.</b>
Milk (1 cup/250 mL)	1
Milk powder (3 tbs/45 mL)	1/2
Cheese (1.75 oz = 1" x 1" x 3" = 50 g)	
Provolone (1.75 oz.)	1
Gruyere, Emmental (1.75 oz.)	1
Cheddar, Gouda (1.75 oz.)	1
Mozzarella (1.75 oz.)	1
Partly skimmed mozza. (1.75 oz.)	1
Grated parmesan (1 tbs/15 mL)	1/3
Processed cheese (2 slices)	1
Cottage cheese (1 cup/250 mL)	1/2
Yogurt (3/4 cup/175 mL)	1
Instant oatmeal (1 packet)	1/2
Salmon (with bones, 1 can)	1
Sardines (with bones, 12)	1
Baked beans (1 cup/250 mL)	1/2
Red kidney beans (1 cup/250 mL)	1/4
Broccoli (1 cup/250 mL)	1/3
Chinese cabbage (1 cup/250 mL)	1/2
Spinach (cooked, 1/2 cup/125 mL)	1/2
Beet greens (1 cup/250 mL)	1/2
Orange (1 average)	1/4
Rhubarb (frozen, raw, 1 cup/250 mL)	1
Dried figs (10)	1
Almonds (1/2 cup/125 mL)	1/2
Sesame seeds (1/2 cup/125 mL)	1/3
Sunflower seeds (1/2 cup/125 mL)	1/4
Tofu (raw, firm, 1/2 cup/125 mL)	1
Hommus (1 cup/250 mL)	1/2
Molasses, blackstrap (1 tbs/15 mL)	1/2

## *Calcium-rich ideas*

- ✓ Add a few tablespoons of milk powder to your beef patties, oatmeal, mashed potatoes, creamy soups and other casseroles (2 to 4 tablespoons)
- ✓ Add sesame seeds, sunflower seeds, cheese cubes or dried figs to your salads
- ✓ Spread blackstrap molasses on your toast or add to baked beans.
- ✓ Replace your morning coffee with a *café au lait* or a hot chocolate milk... Enjoy!



### Be active every day

Your bones react to increased activity by getting stronger. Regular weight-bearing activities such as dancing, walking, hiking



and tennis are recommended. In addition, exercise that improves balance and coordination (tai chi, swimming and flexibility exercises) can help reduce falls and

fractures. Keep experimenting until you find an activity that's right for you!

**Physical activity is good for your bones! It helps you feel better and get more out of life.**

### Avoid smoking

Smokers have faster rates of bone loss and a higher risk of fractures than non-smokers. Women smokers also tend to enter menopause at a slightly younger age than non-smokers. This causes the period of rapid bone loss to occur at an earlier age.

### Watch out for falls!

If you've been diagnosed with osteoporosis, now is the time to put your safety and personal needs first. Preventing falls and fractures should be your number one concern.

Here are a few tips:

- Ask a physiotherapist or occupational therapist to help you establish an exercise program adapted to your abilities and goals.
- Wear comfortable shoes that give good support and watch for uneven ground, sidewalks and floors.
- Don't be in too much of a hurry to catch a bus, answer the phone or respond to a doorbell. Haste may create more problems than it's worth.
- Reduce the risk of accidents in your home by making your house safe. Health Canada publishes a valuable *Safe Living Guide* to help you make simple changes that will help protect you from falls.

### Treatment

In addition to adopting a bone healthy diet and lifestyle, some people may also require drug treatment to prevent or treat osteoporosis.

#### Hormone therapy

Hormone supplements replace the hormones that a woman's ovaries stop making at menopause. By reducing the drop in estrogen levels, these supplements can prevent or correct bone loss.

But estrogen is not always suitable. The decision to take or not to take estrogen should be made with your doctor, taking your individual circumstances into consideration. Bisphosphonates, selective estrogen receptor modulators (like raloxifene), or nasal calcitonin are other possible treatments that may be prescribed.



## Pain management

If you suffer a fracture, the pain can be very sudden and intense. Rehabilitation can take time but the pain intensity will usually decrease gradually and eventually go away.

Unfortunately, some osteoporosis sufferers will experience chronic pain. As chronic pain can also be the result of compression fractures of the spine or muscle spasms, **it's important that you get an accurate diagnosis to ensure appropriate, effective treatment.**

Pain is the body's first signal to urge you to attend to your health. You can do that by adjusting your activities and routines so that you're accommodating your pain without giving in to it.

### Ice and heat

Applications of ice and heat can help relieve pain. To apply ice, try dampening a towel and freezing it. Soft cold packs (or a bag of frozen peas) also work well by adapting to your body curves. Heat can be applied using a hot water bottle, hot towels or hot packs. Use caution when applying heat or ice since burns may occur in either case.

### Medication

Pain relievers (acetaminophen and aspirin-like medications) are usually effective and well tolerated but they do have their limits. Your doctor will be able to tell you when and how medication can be useful.

**Medication should only be part of your pain management strategy.**

### Other therapies

People experience pain differently just as they respond differently to treatment. While there are no miracle cures, positive thinking, relaxation, meditation, acupuncture, visualization, TENS (transcutaneous electrical nerve stimulation) are all ways that have been used by people living with chronic pain due to osteoporosis.

Some methods will work for you and some won't. Keep an open mind: don't miss something that can be of help.

## For more information...

Help, support, referral and information can be obtained from the Osteoporosis Society of Canada at 1-800-463-6842 or (416) 696-2663 (Toronto).

To obtain your copy of *The Safe Living Guide*, call (613) 952-7606, or visit [www.hc-sc.gc.ca/seniors-aines/pubs/safelive/](http://www.hc-sc.gc.ca/seniors-aines/pubs/safelive/)

Valuable information on osteoporosis, nutrition and exercise can also be found on the **Internet**:

[www.hc-sc.gc.ca](http://www.hc-sc.gc.ca)  
[www.paguide.com](http://www.paguide.com)  
[www.osteoporosis.ca](http://www.osteoporosis.ca)  
<http://209.217.125.17>  
[www.infoaging.org](http://www.infoaging.org)  
[www.myrecipes.org/eng/recipes](http://www.myrecipes.org/eng/recipes)  
[www.dietitians.ca](http://www.dietitians.ca)

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