

## OSTEOPOROSIS AND OSTEOARTHRITIS



*Despite the fact that osteoporosis and osteoarthritis (a form of arthritis) are completely different conditions, they are frequently confused, because both names start with the prefix “osteo.”*

A few basic facts:

- The prefix “osteo” (which means “bone”) is the only thing that osteoporosis and osteoarthritis have in common.
- Osteoporosis is a bone disease in which the amount and/or quality of the bone is reduced, leading to weakening of the bone and fractures (broken bones). Osteoporosis produces no pain or other symptoms until a fracture occurs.
- Arthritis (arth = joint; itis = inflammation) is a disease of the joints and surrounding tissues. There are many types of arthritis. Osteoarthritis is the most common form of arthritis especially in older individuals. Osteoarthritis more commonly affects the knees,

hips, hands, feet and back or any combination of these areas.

- A joint is the location at which two or more bones make contact and it allows for movement of the bones.
  - Fractures related to osteoporosis and joint damage related to osteoarthritis can feel similar as both cause pain and limited mobility. In the spine (back), these two diseases
- can co-exist, both causing back pain and limited mobility.
  - Therefore an accurate diagnosis of your pain is very important because the treatments for osteoporosis and osteoarthritis are very different. With an accurate diagnosis, you will be better able to develop an individualized management program that works best for you.

### Osteoporosis

#### Definition

Osteoporosis (OP) is a bone disease. The word “osteoporosis” literally means *porous bones*. It is a disorder characterized by decreased bone strength as a result of reduced bone quantity and/or quality. A person with OP has an increased risk of breaking a bone (fracturing). These breaks are called fragility fractures to indicate that the bone has broken because it has become more fragile (weaker).

#### Symptoms

OP is called “the silent thief” because it can progress without symptoms until a broken bone occurs. When bones become severely weakened by osteoporosis, they are prone to fragility fractures. These occur spontaneously or following minor injury such as a fall from standing height or less or at walking speed or less. Fragility fractures of the spine can occur due to bending, coughing, sneezing, reaching or other simple movements. Hip, spine, shoulder and wrist fractures are the most common fractures associated with OP.

### Osteoarthritis

Osteoarthritis (OA) is a joint disease and it is the most common form of arthritis. OA is the result of damage to cartilage and usually occurs with aging or overuse. As the cartilage at the ends of the bone gets thinner, the underlying bone gets injured. This process can result in pain, reduced movement and stiffness of the joint. These changes may restrict one’s ability to do some physical activities.

OA most often affects the spine, hips, knees, feet or fingers. The symptoms may include pain and/or stiffness after use. Resting the affected joint often helps reduce the pain but short periods of stiffness may follow a period of inactivity. Over time, the pain may get worse but this does not happen to everyone or at each area where you have OA. Regular X-rays can be done to help determine how much damage has occurred in the joint(s) but treatment is usually based on how you feel rather than how the X-rays look.

## IF YOU HAVE BOTH DISEASES

Individuals who suffer from osteoarthritis *and* osteoporosis should seek help in understanding which process is causing which symptoms. Planning a program to manage both conditions with special attention to advice about appropriate exercise and other lifestyle modifications can be very helpful.

Regular weight-bearing exercise is usually recommended for individuals with osteoporosis, but may be difficult to follow in the presence of significant hip or knee osteoarthritis. Keeping joints mobile requires a special approach to exercise and movement. A specially trained physiotherapist can help ensure the exercises are safe and beneficial for both conditions.

## WHERE TO GET HELP

**Osteoarthritis**-The Arthritis Society (TAS) is the leading source of information on arthritis, including osteoarthritis. For more information about arthritis, call The Arthritis Society at 1-800-321-1433 or visit their website at [www.arthritis.ca](http://www.arthritis.ca).

**Osteoporosis**- Osteoporosis Canada (OC) is the leading source of information on osteoporosis in Canada. OC provides individuals concerned about their risk of developing this disease, and those who have been diagnosed, with up-to-date information on all aspects of bone health. Our information counsellors can also help you to connect with Chapters of Osteoporosis Canada in your area.



Make your  
**FIRST** break  
your **LAST**

**INSIST ON ASSESSMENT**

## Osteoporosis

**Diagnosis** OP is diagnosed by first having a discussion with your physician about any previous fractures you may have had and any prednisone you may have recently taken as well as by assessing any height you may have lost. Your physician may also combine certain important clinical risk factors (see below) with the results of a bone mineral density test. This is a simple, painless test that measures the amount of bone in the spine and hip. Your physician can then combine all of this information to determine how likely you are to have an OP related fracture over the next 10 years. (Contact OC for the *Diagnosis* fact sheet.)

**Risk Factors** Low bone mineral density is a risk factor for fracture, which is the main consequence of OP. Other key risk factors include older age, being female\*, having had a prior fragility fracture and taking certain medications such as corticosteroids (e.g., prednisone). Smoking, alcohol, rheumatoid arthritis and having a parent who had a hip fracture all increase a person's fracture risk.

**Treatment** The risk of developing OP and fragility fractures can be reduced with lifestyle changes and, when needed, the use of prescription medication. Vitamin D supplementation, a well balanced diet with adequate calcium and protein, and regular exercise are important lifestyle changes that help keep bones healthy and strong by reducing falls and fractures. Broken hips caused by OP often need to be repaired surgically. (Contact OC for the *Nutrition fact sheet* and *Too Fit to Fracture* booklet.)

## Osteoarthritis

OA is diagnosed based on your symptoms, a physical examination of your joints and X-rays of the affected joints.

Some factors that can contribute to the development of osteoarthritis include family history, physical inactivity, excess weight and overuse or injury of joints.

OA can be managed by balancing gentle or low impact exercises with rest and by protecting the joint from specific activities (e.g., climbing stairs for the knees). Weight control and pain relief medication are also effective. Severe OA may be treated with an operation where the damaged joint is replaced with an artificial one. Knee and hip joint replacements are commonly performed in those with severe OA.

*\*At least 1 in 3 women and 1 in 5 men will suffer an osteoporotic fracture in their lifetime.*

Osteoporosis Canada  
500-1200 Eglinton Avenue  
Toronto ON M3C 1H9  
Tel: 416-696-2663  
Fax: 416-696-2673  
1-800-463-6842 (M-F, 10-4 ET, to speak to an  
information counsellor)  
[www.osteoporosis.ca](http://www.osteoporosis.ca)

To contact the Canadian Osteoporosis Patient  
Network, email  
[copn@osteoporosis.ca](mailto:copn@osteoporosis.ca)

## OSTEOPOROSIS

The information contained in this fact sheet is not intended to replace medical advice. Readers are advised to discuss their individual circumstances with their physician.

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