

# Osteoarthritis

**CAUSES-SYMPTOMS-TREATMENTS** 

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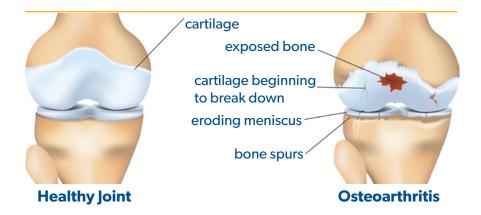


# What is arthritis?

Arthritis is a disease that can affect any joint in the body, including in the hip, knee, spine, and other joints. It can also affect non-weight-bearing joints such as the fingers. Inflammation in a joint can cause pain, stiffness, redness, and swelling. There are many different types of arthritis, but osteoarthritis is the most common form. Early diagnosis and treatment are important because the inflammation associated with arthritis can make it difficult to move a joint and can lead to disability. Arthritis can affect anyone at any age.

#### What is osteoarthritis?

Osteoarthritis (OA) is a disease of the whole joint that leads to breakdown of the cartilage that cushions the ends of bones in the joint and, eventually, the underlying bone. It may be a result of the body's failed attempt to repair damaged joint tissue. Osteoarthritis is more common at older ages but can affect younger people as well. Osteoarthritis affects more people in Canada than all other forms of arthritis combined. There is no cure for osteoarthritis, but remaining physically active, maintaining a healthy body weight and protecting your joints can help reduce the strain on your joints and decrease the severity of your symptoms.



# What are the early signs of osteoarthritis?

Osteoarthritis usually progresses slowly over a period of months or years. Early on, symptoms tend to come and go. Over time, as damage progresses, symptoms can become constant, occurring at rest and disturbing sleep. Symptoms can improve with treatment. It is important to seek help early to minimize symptoms and damage to your joints and to reduce the risk of disability.

# **Common joint signs and symptoms include:**

- Joint pain
- Joint stiffness
- Joint swelling
- Joint crepitus (grinding or creaking)
- Joint instability (joints may feel like they are giving way or buckling)

#### Symptoms outside the joint may include:

- Sleep disruption
- Low mood
- Fatigue
- Reduced quality of life
- Increased sensitivity to pain



# How is osteoarthritis diagnosed?

The diagnosis of osteoarthritis can often be made based on your symptoms and a physical examination. An X-ray is not always needed to make a diagnosis of osteoarthritis. However, X-rays may be ordered to help with the diagnosis if it is unclear. It is helpful to know that symptoms of arthritis may not match what is found on X-rays; sometimes your pain and other symptoms can be greater or less than what might be expected by looking at the X-ray.

### Osteoarthritis treatments

While the underlying process of osteoarthritis cannot be reversed, the symptoms can often be relieved or significantly improved with self-management strategies (e.g., therapeutic exercise, physical activity, weight management) and medications.

An important first step is to learn what you can do to manage symptoms on your own.

> For more information online, visit **Arthritis Society Canada's free learning** resources at arthritis.ca/osteoarthritis.



# **Physical activity**

Physical activity is any movement that increases your heart rate through activation of your muscles, including activities that you do as part of everyday life – such as vacuuming, walking, and gardening. Some people may think that a painful joint requires rest, but too little activity can make osteoarthritis symptoms worse. Light or moderate physical activity can help by strengthening muscles around joints, increasing blood flow and promoting normal joint regeneration. The Canadian 24-hour Movement Guidelines recommend several hours of light physical activities, including standing, each day. This can include going for a walk with friends or preparing a meal with family. Choose to walk more often instead of using a car or public transit or stretch for 10 minutes after every hour of inactivity.

# **Exercise**

Exercise is physical activity that involves heavier, repetitive exertion, and is designed to improve or maintain physical fitness. Walking, stretching, cycling, yoga, and water exercise are good options for arthritis.

Targeted exercise for your joints may have added benefit. A physiotherapist can work with you to develop an exercise program that is designed for your needs.

Joint rest is recommended when you are experiencing a flare of joint pain, or your joint is swollen and hot. At these times, you can try light range of motion exercises.



# What types of exercise are recommended for osteoarthritis?

# • Therapeutic exercises:

Often developed with the help of a healthcare professional, this type of exercise is a set of planned motions designed to help you improve strength, flexibility, fitness and balance.

# Range of motion exercises:

These are also called stretching or flexibility exercises. Exercises that keep your joints moving can reduce pain and stiffness.

# Strengthening exercises:

Exercises that maintain or increase muscle tone and protect your joints. These resistance-based exercises include weight-training movements done with a set of free weights, your own body weight, resistance bands or weight machines.

#### **Endurance exercises:**

Exercises that strengthen your heart, give you energy, control your weight and help improve your overall health. Examples include walking, swimming and cycling.



While many exercise options can be beneficial, activities like tai chi and yoga that combine muscle strengthening, flexibility, and endurance exercises can be particularly helpful for the management of osteoarthritis. These exercises can also be meditative, promoting relaxation and increasing capacity to cope with arthritis.

### How much exercise is recommended for osteoarthritis?

Any increase in your physical activity or exercise may help if you are not currently active, with an eventual target for adults of 150 minutes of moderate-to-vigorous intensity exercise per week, in sessions of 10 minutes or more (if tolerated).

Consult your healthcare provider for suitable exercises for you.



# **Protect your joints**

While it's important to keep your joints moving, it's also important to avoid situations that put excessive stress or strain on your joints.

#### Tips to protect your joints include:

#### **Pace yourself:**

Alternate heavy or repeated tasks with lighter tasks. Take breaks when needed.

#### **Keep joints properly aligned:**

Putting weight on your joints in an awkward position can add strain. A physiotherapist can help you understand joint alignment.

# Avoid excess joint stress:

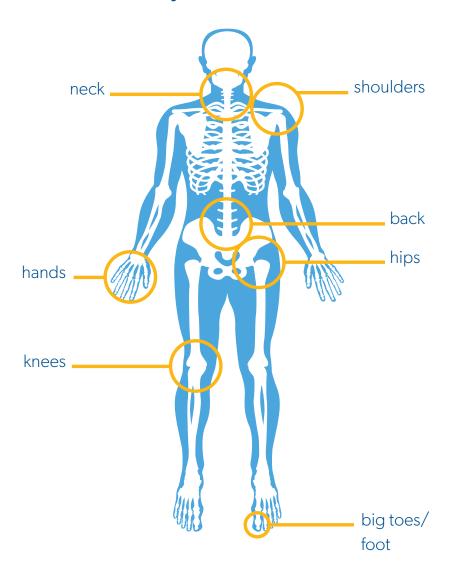
Certain activities can place excessive stress on joints, such as hard labour, heavy lifting, repeated squatting or repetitive movements. If you have to do these tasks, you can try using assistive devices to make the tasks easier or speak to a trained professional such as an occupational therapist, who can help you learn how to do them safely.

# Support your joints with proper footwear:

To avoid extra strain on your joints, save high heels for special occasions and choose supportive flat shoes or low, wide heels for everyday wear.

Use assistive devices as needed, such as a raised seat, reacher, cane or walker.

# Joints Most Commonly Affected by Osteoarthritis





# **Heat and cold therapy**



Taking a hot bath or using a warm pack are great ways to help reduce pain and stiffness. Always use a protective barrier, such as a towel, between the warm pack and your skin. Paraffin wax therapy may provide relief for hands and feet. Talk to your doctor before trying this at home. Heat is ideal for relieving pain, muscle spasms and tightness, as well as enhancing range of motion.



Applying cold to a painful joint can help reduce swelling and inflammation. You can use a cold pack, a bag of ice cubes, or a bag of frozen vegetables for short-term relief. Always use a protective barrier, such as a towel, between the cold pack and your skin. Cold is ideal for reducing swelling and decreasing pain.

# **Effective weight management**

Carrying excess weight increases the risk of developing osteoarthritis and increases the rate at which the condition progresses.

If you are overweight, losing even 10% of your body weight can help reduce joint strain.

Just as there is no single definition of a healthy body, there is no single definition of a healthy weight – it's unique for each individual based on body composition, age, sex, lifestyle and other conditions. If you are having difficulty controlling your weight, talk to your doctor for some suggestions.



# **Eating well**

Healthy eating will help you manage your weight and give you the energy to complete your daily activities, as well as promote a strong immune system and bone and tissue health.

# Three ways to improve your nutrition include:

- Limit saturated and trans fats: A healthy diet should include modest amounts of unsaturated fats. Choosing the right amount and types of fats can help you achieve and maintain a healthy body weight and improve your overall health. Olive oil and cold-water fish such as salmon, trout or herring are examples of healthy choices.
- Reduce sugar intake: This includes honey and syrup as well as white, brown, cane and raw sugar. Limit or avoid adding sugar to drinks and cereals. Although artificial sweeteners contain fewer calories, it is best to get used to food being less sweet. Use dried, unsweetened fruit like raisins, cherries or dates to sweeten cereals since they provide vitamins, minerals and fibre.
- Eat more vegetables and fruit: Vegetables and fruit should make up the largest component of your diet. Besides being an excellent source of energy, vegetables and fruit boost your fibre intake, which helps with digestion and weight management. They are also loaded with antioxidants, which help boost the immune system and may help maintain healthy cartilage.

Consult a registered dietitian for more information.



#### **Medications**

Medications for osteoarthritis focus on helping to manage pain and improve joint function. Common medications used in osteoarthritis are described below. Talk to your doctor about which medications are appropriate for you.

- Topical non-steroidal anti-inflammatory drug (NSAID) **creams** are often first line treatment for superficial joints (e.g., knees and finger joints.)
- **Topical capsaicin cream** may be tried for knees. Avoid use on hands due to risk of contaminating the eye.
- Some people report relief from gels or patches that create a feeling of cold or heat over the joint. Please check with your doctor or pharmacist before using any treatment available without a prescription.
- **Joint injections** Steroid injections are most common, but a variety of options exist and can be discussed with your doctor.
- **Acetaminophen**
- **Oral NSAIDs** such as ibuprofen and naproxen
- **Duloxetine** may be recommended if you do not respond to or cannot tolerate acetaminophen or NSAIDs.

For more information visit arthritis.ca/medication



# **Therapies**

A physiotherapist (PT) is a regulated health professional focused on the body's movement and function. They can develop an individualized program designed to help you increase your strength, flexibility, range of motion, and general mobility.

An occupational therapist (OT) is a regulated health professional focused on helping people to meaningfully participate in activities of daily life and work. They can develop a program to help lessen your symptoms and improve your function. They can help with redesigning spaces and recommend assistive devices to protect your joints and minimize fatigue.

While there is often a fee for physiotherapy and occupational therapy, these services may be covered by private health insurance or you may be eligible for a publicly funded program offered by the government or some community service organizations, depending on your situation.

# **Complementary therapies**

People with a chronic disease like osteoarthritis may decide to try complementary and alternative therapies to help them manage the symptoms of their condition. These might include acupuncture, massage, mindfulness and meditation, or naturopathic medicine. Before you try any of these treatments, always consult with your healthcare provider. They can offer valuable advice about these treatments and how they may affect you.



# **Surgery**

Surgery is a treatment reserved for severe joint symptoms that fail to improve with other therapies.

The decision to undergo surgery depends on the amount of pain and disability your arthritis is causing, as well as the risks and benefits of surgery. This should be discussed further with your doctor.

> For more information visit arthritis.ca/surgery



#### ABOUT ARTHRITIS SOCIETY CANADA

Arthritis Society Canada represents the six million people in Canada living with arthritis today, and the millions more who are impacted or at risk. Fueled by the trust and support of our donors and volunteers, Arthritis Society Canada is fighting arthritis with research, advocacy, innovation, information and support.

For more information, visit arthritis.ca

This information was updated with expert advice from: Dr. Sarah E. Ward, MD, FRCSC Orthopaedic Surgeon, St. Michael's Hospital Assistant Professor, Department of Surgery, University of Toronto

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