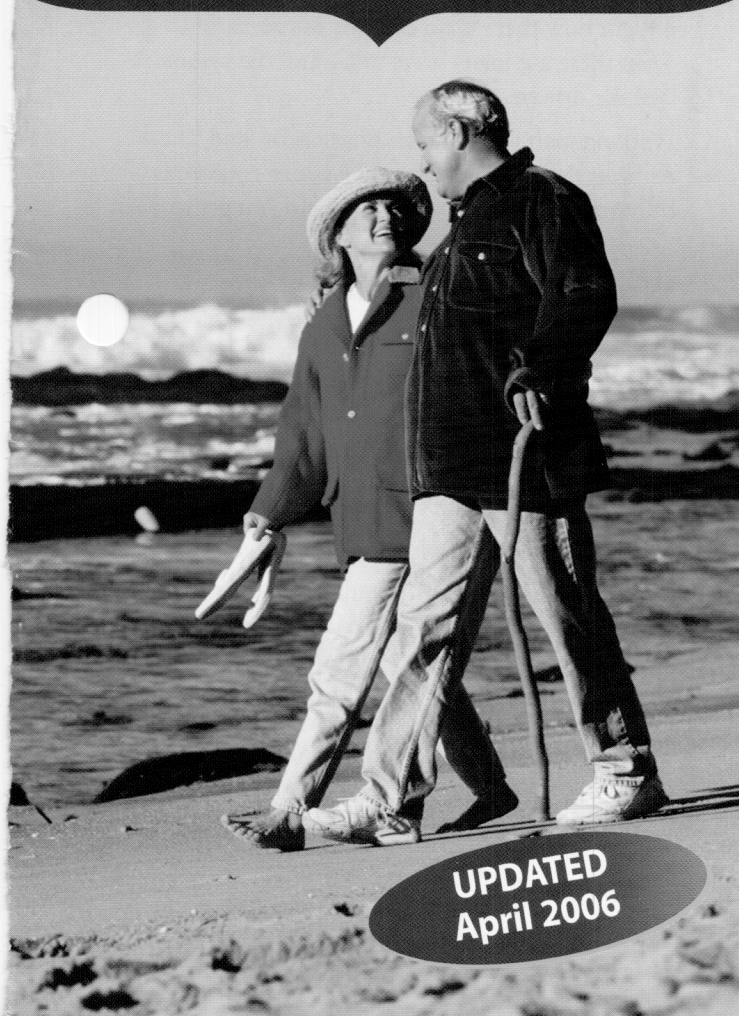


Living Well with Osteoarthritis

Knowing Your
Treatment Options



UPDATED
April 2006

Did you know?

- There are many kinds of arthritis.
- The most common kind is called osteoarthritis (or OA for short).
- Osteoarthritis affects 1 in 10 Canadian adults.
- It affects women and men at roughly the same rate.
- Osteoarthritis usually starts after age 45, but can occur at any time.
- It has been around for a long time: dinosaur bones and Egyptian mummies show evidence of osteoarthritis.
- Right now there is no cure for osteoarthritis, but there are many ways to control the symptoms of the disease.

Working with your doctor, pharmacist, and The Arthritis Society, you can find ways to cope with osteoarthritis. This booklet will help you get started.

What are the warning signs of osteoarthritis?

If you have any of the following signs for more than two weeks, see your doctor.

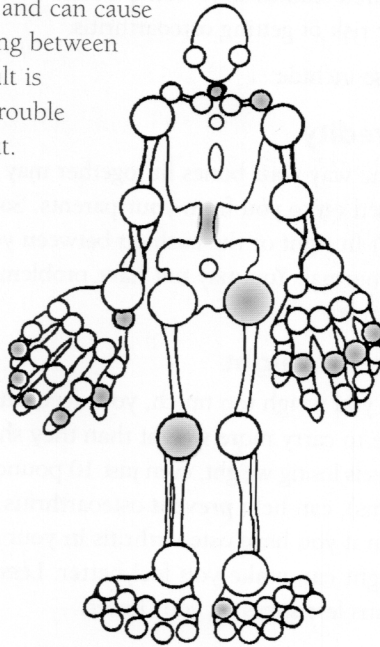
- Feeling pain in a joint or near a joint.
- Feeling stiff, or not being able to move a joint.
- Swelling and a loss of flexibility in a joint.
- Cracking sensation with joint movement.

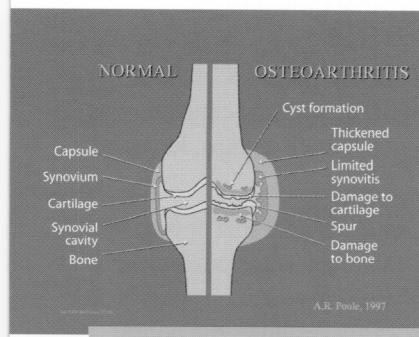
What is osteoarthritis?

Osteoarthritis is a disease that affects joints in the body. It can involve any joint, but usually concerns hands and weight-bearing joints such as hips, knees, feet and spine.

Cartilage is the tough elastic material that covers and protects the ends of bones. In healthy joints cartilage acts as a shock absorber when you put weight on the joint. The slippery surface of the cartilage allows the bones to move smoothly. When a joint develops osteoarthritis the cartilage gradually becomes rough and thin, and the bone underneath thickens.

Osteoarthritis is classified as non-inflammatory arthritis. This suggests that there is no inflammation (swelling), but recent research shows that this is not true. Although there is usually no swelling in the early stage of the disease, as the arthritis progresses there can be inflammation. Bits of cartilage may break off and float around inside the joint. This disturbs other soft tissues inside the joint and can cause pain and swelling between bones. The result is you may have trouble moving the joint.





Over time as the cartilage wears down, the bones may form bumps on their ends. These bumps are called **spurs**. Or, the cartilage may wear away entirely, and your bones may rub together.

OA may lead to other problems such as:

- The muscles that hold the joint in place weaken because they are not being used.
- Over time, the joint loses its shape and does not work at all.

Why do people get osteoarthritis?

No one knows for sure what causes osteoarthritis, but research studies show some factors that may increase your risk of getting osteoarthritis.

These include:

Heredity

The way your bones fit together may have been passed on to you from your parents. Sometimes joints don't fit right or the cushion between your bones is not normal. You may not have problems until you are older.

Excess Weight

If you weigh too much, your feet, knees and hips have to carry more weight than they should. The good news is losing weight, even just 10 pounds (4.5 kilograms), can help **prevent** osteoarthritis in your knees. Even if you have osteoarthritis in your knees, losing weight can make you feel better. Less body weight means less stress on your knees.

Joint Injury

If you damaged a joint and it did not heal completely, you may end up with osteoarthritis in that joint later in life. Certain occupations may predispose you to osteoarthritis. For example, people that must work in a squat position over many years may be more susceptible to osteoarthritis of the knees.

Complications of Another Type of Arthritis

Sometimes osteoarthritis is caused by damage from a different kind of joint disease that occurred years before. For example, people with rheumatoid arthritis can develop osteoarthritis in those joints in which the rheumatoid inflammation has largely burnt out.

Wear and Tear?

Osteoarthritis used to be thought of as the inevitable result of "wear and tear" on the joints. Research now shows that normal wear does not actually cause "tear." Normal activity and exercise is good rather than bad for joints and does not cause osteoarthritis.

We do not yet know the causes or the cure for arthritis, but researchers in Canada and around the world are trying to learn why cartilage starts to wear away. In fact, The Arthritis Society funds many leading edge research projects that bring vital new insights and lead to new and better treatments for osteoarthritis.

For example, Canadian researchers have identified some of the enzymes that damage the cartilage in osteoarthritis. Blocking these enzymes may be one way to slow down the progression of the disease.

How does the doctor diagnose osteoarthritis?

If you are experiencing persistent joint pain, visit your family doctor. Describe the pain in detail including where the pain occurs and when. The x-ray is the most useful test to confirm osteoarthritis.

Medications

A Word about Medication Safety

The need to effectively monitor new drugs once they have been approved and introduced into the market has been a key advocacy issue for The Arthritis Society for several years. This advocacy helps to ensure that unfavorable side effects are reported, documented, and addressed. For regular updates on medications available in Canada, visit www.arthritis.ca/tips/medications.



All medications have potential side effects whether they are taken by themselves or in combination with other herbal, over-the-counter and prescription medications. It is therefore important for patients to discuss the benefits and potential side effects of all their medications with their doctor.

Health Canada's Marketed Health Products Directorate (MHPD) has recently developed a new website, www.MedEffect.ca. MedEffect's goal is to provide centralized access to new safety information about health products in an easy to find, easy to remember location. It also aims to make it as simple and efficient as possible for health professionals and consumers to complete and submit adverse reaction reports. Finally, it helps to build awareness about the importance of submitting adverse reaction reports to identify and communicate potential risks associated with certain drugs or health products. To find out more, visit: www.healthcanada.gc.ca/medeffect or call toll-free 1-866-234-2345.

What types of medications help Osteoarthritis?

Analgesics

For mild to moderate osteoarthritis doctors often recommend acetaminophen (Tylenol®, Panadol®, Exdol®, etc). Acetaminophen is a pain reliever, but does not reduce inflammation. For this reason it can usually be safely taken along with most prescription medications. However, there are daily limits of acetaminophen that you can take, so be cautious, particularly with other medications that contain acetaminophen (for example, it's found in many cold remedies).

Creams and Gels

Topical creams and gels that are available over-the-counter may provide temporary pain relief, but only in the areas where they are applied. These creams aren't as effective as anti-inflammatories. Brands available include: Bengay Arthritis®, Deep Heating Rub Cream®, Minard's Joint Relief®, Marathon Deep Heat Rub®, Menthacin®, Extra-Strength Deep Heating®, and Arthritis Patch. The majority of creams and gels use heat or cold to distract you from pain.

Codeine Preparations

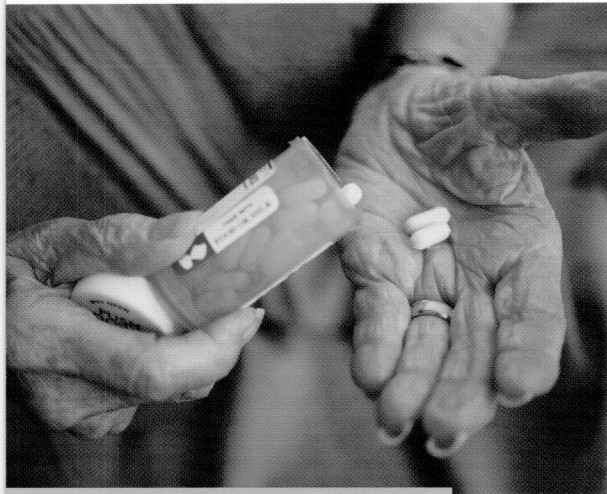
If acetaminophen is not doing enough to ease pain, your doctor may suggest a combination of acetaminophen and codeine. Codeine is a narcotic that affects the central nervous system, reducing sensitivity to pain. It is available in combination with acetaminophen in low doses without a prescription and in higher doses with a prescription. Some examples of codeine preparations are Tylenol 1, 2 and 3; Exdol-8, -15, -30; and Atasol-8, -15, -30.

Codeine may cause constipation, which can be avoided by simple dietary changes (prune juice, bran cereals etc.) and stool softeners.

Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)

These medications can be used to help reduce pain and swelling of the joints, and decrease stiffness. However, they do not prevent further joint damage. NSAIDs reduce pain when taken at a low dose, and relieve inflammation when taken at a higher dose.

You can purchase NSAIDs such as acetylsalicylic acid, also known as ASA (Aspirin®, Anacin®, etc.) and ibuprofen (Motrin®, Advil®, etc.) without a prescription. If you have more severe pain and swelling, your doctor may prescribe a different kind of NSAID such as naproxen (Naprosyn®), indomethacin (Indocid®), diclofenac (Voltaren®), piroxicam (Feldene®), or sulindac (Clinoril®).



You may need to take NSAIDs for several weeks before they take effect completely. Sometimes these medications can cause stomach upset, diarrhea and abdominal pain. The elderly, people with high blood pressure, kidney problems, previous stomach ulcer, and congestive heart failure or those who have had a previous heart attack or stroke should talk to their doctor before taking any NSAID. NSAIDs can also interact with blood thinners such as warfarin. With the exception of small dose ASA for circulation problems, two different NSAIDs should not be taken at the same time. When NSAIDs are taken along with ASA, the effect of the ASA may be reduced.

COX-2 inhibitors (e.g. Celebrex®) are a specific kind of NSAID that may be prescribed if traditional NSAIDs are hard on your stomach, or if you have an increased risk for stomach or duodenal ulcers. People who have had a heart attack or stroke or experienced serious chest pain related to heart disease should not use NSAIDs or COXIBs. If you are unsure, speak to your doctor to determine if this type of treatment is right for you.

To relieve pain, inflammation and minimize gastrointestinal side-effects, NSAIDs can also be delivered topically (by applying it directly to the affected area). At the time of publication, Pennsaid® is the only available prescription NSAID topical solution approved by Health Canada for OA of the knees specifically.

Corticosteroids

When osteoarthritis progresses to the point where it's hard to get around, corticosteroid injections may be an option to reduce pain and improve mobility. They are steroids that can be injected into the joints. It is important to rest the joint for a few days after the injection in order for the benefit to last longer. Joint injections may give very temporary relief in osteoarthritis, and they are not usually given to the same joint frequently.

What else can I do to manage my disease?

Exercise

Exercise can help ease the pain of osteoarthritis. A properly designed exercise program can not only decrease your pain, but also increase your flexibility and overall fitness—and it can do wonders for your spirits. A physiotherapist can teach you correct exercises such as:



- **Strengthening exercises** improve muscle strength and tone, which will help to stabilize and protect osteoarthritic joints and reduce the pain.
- **Range of motion exercises** help maintain or restore normal joint movement and relieve stiffness.
- **Low impact exercises** such as walking and swimming, which do not put unnecessary strain on joints

While these measures won't stop the disease from progressing, they can help slow damage to your joints. Combined with good medical care, you can better manage your symptoms.

Protect your joints

- * Avoid excess strain on joints
- * Control your weight
- * Warm-up/cool-down before and after exercising
- * Apply ice after injuries
- * Pace yourself. An occupational therapist can help you modify your home or work environment
- * Wearing proper shoes and using aids such as canes or walkers can also take off some of the strain

Heat and Cold

Heat applied to an arthritic area can reduce pain, stiffness and muscle spasm. It promotes blood circulation, which nourishes and detoxifies muscle fibers. Having a hot shower before exercise may help you get ready for the workout. You should not apply heat to an inflamed joint.

Cold applied to inflamed joints reduces pain and swelling by constricting blood flow.

Viscosupplementation

This is a relatively new treatment in Canada for people with osteoarthritis of the knee. A clear gel-like substance is injected into the knee. It lubricates the cartilage (much like oil lubricates an engine), reducing pain and allowing greater movement of the knee. For more information on this procedure, ask your doctor.

Surgery

Osteoarthritis may progress to the point where surgery is necessary. Minor surgery can be performed to clean out cartilage debris from the joints, particularly the knee. This is called arthroscopic surgery. It is performed as outpatient surgery and does not usually require an overnight stay in hospital.

Severely damaged joints can be reconstructed or surgically replaced with artificial ones. Joint replacement is major surgery, and is most often performed to replace hip and knee joints. Hip and knee replacements relieve pain and can restore your ability to move your joints and function normally. Artificial joints can last 10-20 years before they require replacement, which is why this type of surgery is delayed until it is clearly necessary.



Complementary Approaches

It's important to remember that non-conventional approaches to manage OA aren't meant to replace your treatment plan, but rather act as a complement.

Supplements

Sulfate	Glucosamine
WHERE IT COMES FROM	A component of human cartilage, bone and tendon. In supplements chondroitin usually comes from bovine or pork by products.
WHAT IT'S SUPPOSED TO DO	Reduce pain and inflammation, improve joint function and slow disease progression.
WHAT WE KNOW	It is believed to enhance the shock-absorbing properties of collagen and block enzymes that break down cartilage. Currently there is no proof that it can reverse cartilage loss or even reduce symptoms in osteoarthritis.
STUDIES	Many studies using chondroitin have been small and scientifically flawed. However, two large studies showed improvement in pain and inflammation and improved joint function. Some people taking chondroitin are able to reduce NSAID dosages.
WHAT TO WATCH FOR	Diarrhea, constipation and abdominal pain. Some chondroitin tablets contain high levels of manganese, which may be problematic with long-term use.

You should **always** discuss your selection of supplements and complementary therapies with your doctor.

MSM (Methylsulfonylmethane)	
Major component of joint cartilage. Supplements are derived from the shells of shellfish such as shrimp, lobster and crab.	Organic sulfur compound found naturally in fruits, vegetables, grains, animals and humans.
Slow deterioration of cartilage, relieve osteoarthritis pain and improve joint mobility.	Reduce pain and inflammation.
Glucosamine provides the natural building blocks for growth, repair and maintenance of cartilage. Helps cartilage absorb water and keeps joint lubricated.	MSM, an organic sulfur, has been studied for arthritis. Sulfur is needed to form connective tissue.
Numerous studies have looked at glucosamine treatment in osteoarthritis, and although <u>many of these studies were flawed</u> , they suggest that glucosamine may be beneficial for moderate pain. There is no good evidence that glucosamine reduces symptoms of OA.	A few animal studies have shown MSM may ease inflammation. One small study on humans appeared to show relief of arthritis symptoms. <u>No good, well-controlled human studies to date and no evidence for safety or effectiveness in treating arthritis.</u>
Mild stomach upset, nausea, heartburn, diarrhea, constipation, increased blood glucose, cholesterol, triglyceride and blood pressure levels. Don't use if you are allergic to shellfish.	As per the box above, there have been so few studies on MSM, there is little information available about possible side effects.

Source: Diane Welland; 2002-2003 Supplement Guide; The Arthritis Foundation, 2002.

Complementary Therapies

Acupuncture

Acupuncture is an ancient Eastern technique that may provide temporary pain relief. Results of a randomized trial in a recent issue of THE LANCET suggest that acupuncture could reduce pain and improve joint functioning in the short-term for people with osteoarthritis of the knee. Lead investigator Claudia Witt (Charite University Medical Center, Berlin, Germany) advised: "Acupuncture treatment had significant and clinically relevant short-term effects when compared to minimal acupuncture or no acupuncture treatment in patients with osteoarthritis of the knee. We now need to assess the long-term effects of acupuncture, both in comparison to sham interventions (superficial needling at non-acupuncture points) and to standard treatment."

Massage

Massage is widely used for pain relief, but its results are open to question. At best, massage may relieve muscle ache or tension by increasing blood flow, but benefit is relatively short-lived. Massage should be avoided when joints are especially tender or inflamed, since it can

actually worsen your condition at such times. If you're having a massage done by a professional, make sure he or she understands that, because of your arthritis, you want only the gentlest procedure.

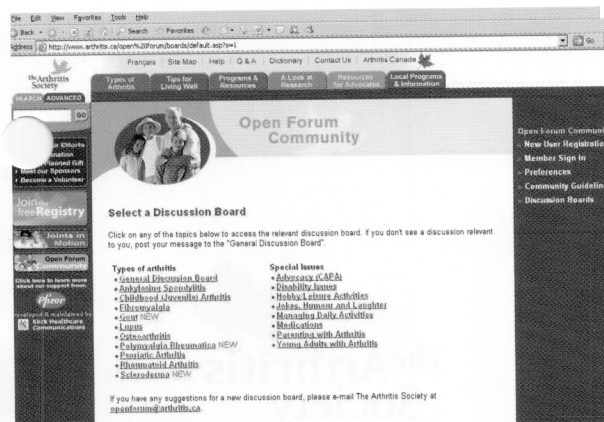


How can I learn more about osteoarthritis?

Managing arthritis means more than just visiting your doctor and taking the right medicines. The Arthritis Society offers a six-week Arthritis Self-Management Program (ASMP) designed to help you:

- Better understand your arthritis
- Learn ways to cope with chronic pain
- Take a more active role in managing your arthritis

Participating in the ASMP, or using the Open Forum on The Arthritis Society's website, provides an opportunity for you to discuss and share personal experiences, the challenges of managing your arthritis on a day-to-day basis, and other useful insights



For more information on
how to live well with osteoarthritis,
contact The Arthritis Society:



**Sign-up for the
free Arthritis Registry**



1.800.321.1433



www.arthritis.ca



**The Arthritis
Society**

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and solutions to people living with arthritis, giving hope
for a better life — today and tomorrow.*

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