

## ARTHRITIS FIGHT IT!

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Learning daily living strategies to manage your arthritis gives you a greater feeling of control and a more positive outlook.

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# Rheumatoid Arthritis

KNOW YOUR OPTIONS



Canadian Rheumatology Association  
Société Canadienne de Rhumatologie



This publication has been endorsed by the Canadian Rheumatology Association whose mission is to represent Canadian Rheumatologists and promote their pursuit of excellence in Arthritis Care, Education and Research.

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# Rheumatoid Arthritis

## DID YOU KNOW?

- Arthritis is the most common cause of disability in Canada.
- About one out of every 100 Canadians has rheumatoid arthritis (or RA, for short). That's about 300,000 Canadians!
- Anyone can get RA at any age, but it most often appears between the ages of 25 and 50.
- RA affects women three times more often than men.

**There is no cure for RA, but when you are diagnosed early and start the right treatment, you can take control of your disease and avoid severe damage to your joints.**

**Most people with RA can lead active and productive lives with the help of the right medication, surgery (in some cases), exercise, rest and joint protection techniques.**

## WHAT IS RHEUMATOID ARTHRITIS (RA)?

Can you believe that there are over 100 different types of arthritis? To keep things simple we will divide arthritis into two general types – inflammatory and degenerative. The root cause of degenerative arthritis is the breakdown of cartilage whereas inflammation of the lining (synovium) of the joint is the root cause of inflammatory arthritis.

Rheumatoid Arthritis (RA) is a type of inflammatory arthritis and an autoimmune disease. An autoimmune disease is one where the body's immune system becomes confused and begins to "attack" the body. In RA, the joints are the target of the immune attack causing swelling, pain, and warmth (inflammation) in the joints resulting in inflammatory arthritis.

RA usually begins slowly, starting in a few joints and then spreading, over a few weeks to a few months, to involve other joints; rarely, does RA begin almost

overnight. As time goes on, RA involves more and more joints on both sides of the body in a "symmetrical" pattern. This means if joints in your right hand are swollen then joints in your left hand will probably be swollen.

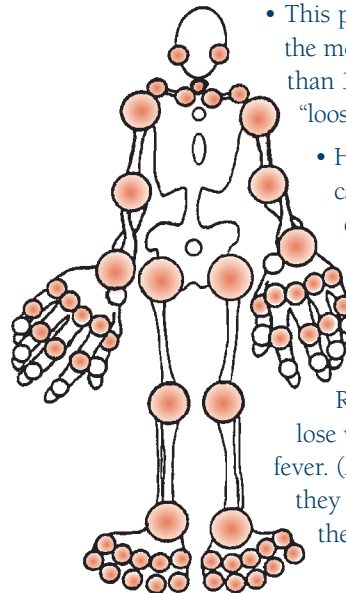
The symptoms of RA vary from person to person. Some people have only a few joints involved or mild inflammation whereas others have many joints involved or they are severely inflamed. The symptoms of RA also vary from times when the joints feel good to other times (often for no reason at all) when the joints become stiffer, sorer, and more swollen. We call this a "flare".

Remember back when we said that RA was an autoimmune disease where the immune system gets confused and attacks the joints? Well, that isn't the whole story. When the immune system is confused, it can also attack other parts of the body such as the eyes, lungs, or heart. Fortunately this is rare.

## WHAT ARE THE WARNING SIGNS OF RA?

Remember that RA usually starts over a period of weeks to months slowly adding joints over time? **These are the warning signs! If any of the following symptoms last for more than two weeks, see your doctor.**

- You start to feel unusual pain and stiffness in joints (look for new pain and stiffness in the knuckles in the hands and the balls of the feet).



- This pain and stiffness is worse in the morning; typically lasting more than 30-60 minutes before you "loosen up" and start feeling better.
- However, the pain and stiffness can be with you (to some degree) most of the day even causing discomfort while you try to sleep at night.
- Some people notice that they feel more tired when RA starts and occasionally some lose weight or develop a low-grade fever. (Although, most people will say they gain a little weight because they haven't been as active).

## WHAT TO DO IF YOUR FAMILY DOCTOR THINKS YOU HAVE RA?

If your family doctor believes that you have RA, it is important to see a rheumatologist and to begin treatment right away. A rheumatologist is a doctor who is an expert in arthritis. You must get a referral from your family doctor to see a rheumatologist.

The Arthritis Society maintains a list of rheumatologists across Canada. To find out which rheumatologist is nearest to you, call our toll-free Arthritis Information Line at 1.800.321.1433.

## HOW DOES THE DOCTOR DIAGNOSE RA?

There is no single test for rheumatoid arthritis. If you have signs and symptoms of rheumatoid arthritis, your doctor will likely examine your joints and perform blood tests and x-rays to help with the diagnosis.

Your doctor may order blood tests such as the ESR (Erythrocyte Sedimentation Rate) and the CRP (C-Reactive Protein) to look for inflammation in the blood.

Another blood test, called the rheumatoid factor can be helpful but it is not possible to rule out RA with this simple blood test. Here are a few points you should remember about the rheumatoid factor:

- If you have a positive (abnormal) rheumatoid factor, it does not always mean you have rheumatoid arthritis. Rheumatoid factor can be positive in lots of other conditions and low levels can sometimes be found in otherwise healthy people.
- The rheumatoid factor is usually negative (normal) in most (50 to 70%) patients with new onset rheumatoid arthritis.



- The rheumatoid factor is positive in most (70 to 80%) of patients with long-standing rheumatoid arthritis.

At this time, there is no cure for rheumatoid arthritis. Therefore establishing the correct diagnosis is very important because there are many treatment options to manage the symptoms of rheumatoid arthritis.

## WHY IS EARLY TREATMENT SO IMPORTANT?

Remember that RA causes inflammation (swelling, pain, & warmth) in the affected joints. You can think of this inflammation like a “fire” burning in the joints. If we leave the fire of inflammation “burning” it can permanently damage the joint. Once a joint is damaged, it can’t be fixed with medicine.

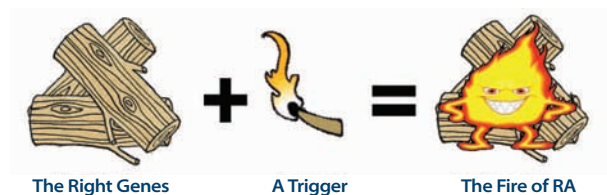
Imagine you come home from a long day at work, kick off your shoes, and relax on the couch. You then notice that there is a small fire burning in the kitchen. You aren’t likely to sit on the couch and wonder, “Gee, that’s a nice fire. I think I’ll wait and see what it does.” *<No, that would be crazy>*. You’re more likely to jump up, get the fire extinguisher and call the local fire department to get the fire put out as quickly as possible before it causes damage to your house.

You should think of RA in the same way, like a “fire” in your joints. You don’t want to sit around and “watch” this fire (inflammation) burning. Instead, with the help of your rheumatologist, you want to get that fire put out as quickly and as safely as possible. Sometimes it can take up to three medications in combination (triple therapy) to settle the joints down. This is a very common approach to treating early RA.

To emphasize, RA can cause permanent joint damage quickly when it is not treated and controlled. This damage can occur even when the pain is not severe. Once damage occurs it is not reversible and can cause significant pain and disability. Fortunately, we know that treating RA early and aggressively improves the long-term outcome and significantly reduces damage.

## WHY DO PEOPLE GET RA?

No one knows what causes RA. To simplify things, let's again think of the inflammation of RA like a fire. This time, imagine you're out camping and want to start a campfire. The first thing to do is to gather and arrange enough wood and paper for the campfire. If you gather lots of dry wood and newspaper, chances are the fire will light. If you gather soaking wet wood chances are you won't be able to get the fire started. People who develop RA have genes (DNA) that "set them up" to get the disease. They have the nice dry wood and paper all "set-up" to light the fire of RA! If they had genes (DNA) like the "wet wood" the fire of RA would never be able to light.



Ok, just because someone has the right genes (the dry wood) doesn't mean they'll go on to develop RA. They need something to light the fire – we call this a "trigger". Just like many things can be used to light a fire (matches, flint, lightning etc) there are many "triggers" that could start RA. Unfortunately, we don't know what the "trigger" is that starts RA but some believe it may be a viral infection or something else in our environment. There may be more than one trigger. Many dedicated scientists are looking for the "trigger", and many clues have been found (such as an increased risk of developing RA if you smoke), but nobody has been successful yet. The Arthritis Society funds many leading edge research projects that bring vital new insights, resulting in new and better treatments for RA.

Believe it or not, most people who develop RA have no history of RA in the family. As we said the genes are only one part of the story, the other is the "trigger". However, if a relative has RA you are at a small increased risk. It is unusual to see RA in many family members, but we occasionally do see it.

## HOW CAN I MANAGE RA?

Once your diagnosis is confirmed there are many treatments that can help decrease your pain and stiffness, and increase your movement.

The typical treatment plan is usually made up of several components:

- Medication
- Other healthcare support (physiotherapy, occupational therapy etc)
- Daily-living adjustments

Being actively involved in developing your prescribed treatment plan is essential to decrease your pain, and maintain your movement and function.



## WHAT MEDICATIONS ARE USED FOR RA?

The general approach to treating RA is to reduce the joint inflammation to prevent long-term damage to the joints (put out the fire!). The cornerstone of therapy is the Disease-Modifying Anti-Rheumatic Drugs (DMARDs pronounced DEE-mardz ). You can think of the DMARDs like your local fire trucks with their hoses on the fire. In general, everyone with RA should be on a DMARD – they are the anchor therapy. DMARDs will suppress the inflammation and prevent long-term damage to the joints.

DMARDs are often used in combination with Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) and Corticosteroids (steroids). Although NSAIDs and steroids slow down the day-to-day inflammation they don't affect the long-term outcome of the disease.

A relatively new class of medications (biologics) has revolutionized the treatment of RA over the past few years. These medications, often used in combination with DMARDs, also suppress inflammation and help prevent damage to the joint.

### Traditional Disease-Modifying Anti-Rheumatic Drugs (DMARDs)

DMARDs are a class of medications used to treat inflammatory types of arthritis such as rheumatoid arthritis. DMARDs slow down the biologic processes that are the driving force behind the persistent inflammation (pain, swelling and stiffness) in the joints. DMARDs are important because they help to prevent damage to the joint. Doctors know that prescribing a DMARD early on is important to slow or even stop the progression of joint damage .... but a DMARD cannot fix joint damage that has already occurred.

The fastest acting, best tolerated, and most commonly prescribed DMARD is methotrexate (MTX). MTX is given either as tablets or injection; the choice will be up to you and your doctor. The most important thing to remember is that MTX is only taken once a week. Choose a day that places the least demands on you, since some people feel unwell (tired, sick to the stomach, loss of appetite, or headache) for a day or two after they take MTX.

Rheumatologists use DMARDs like MTX on their own or in combination. Many studies have shown that the outcome of two or three of these medications used in combination is more effective at managing the disease. DMARDs used on their own or in combination with MTX are found in the table below.

### Commonly Prescribed DMARDs for RA

BRAND NAMES	PRODUCT	COMMON DOSE	HOW GIVEN
<b>Arava</b>	Leflunomide	10-20 mg per day or every other day	Tablets
<b>Imuran</b>	Azathioprine	50-150 mg per day	Tablets
<b>Methotrexate</b>	Methotrexate	7.5 to 25 mg once weekly	Tablets or injection under the skin
<b>Myochrisine</b>	Gold (Sodium aurothiomalate)	50 mg once every week to every month	Injection into the muscle
<b>Plaquenil</b>	Hydroxychloroquine	200-400 mg per day	Tablets
<b>Salazopyrin</b>	Sulfasalazine	1000-1500 mg twice per day	Tablets

### Side effects and blood monitoring

All DMARDs have potential side effects. Each one is different and you must learn from your doctor what to expect from each drug you try. In most cases, DMARDs require regular blood tests to monitor side effects. Some people require an adjustment to their dosage or a change to a different type of medication.



## Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)

Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) are a class of medications used to treat the pain and inflammation of arthritis. They do not contain steroids, hence the name “Non-Steroidal”. NSAIDs are a very large category of medications, some of which you can obtain without a prescription, such as ASA (Aspirin®, Entrophen®, Novasen®) and ibuprofen (Advil® or Motrin®). The list of NSAIDs is long with over 20 currently available today.

It is important to remember that NSAIDs work to improve symptoms and have no proven long term benefits in RA. As such, these medications can be taken on an as needed basis and do not need to be taken regularly. That being said, some patients find it helpful to take their NSAID on a regular basis to control their symptoms. Indigestion, heartburn, stomach cramps, and nausea are the most common side effects of NSAIDs. NSAIDs can affect the protective lining of the stomach making you more susceptible to ulcers and bleeding. If you develop signs of stomach bleeding, such as vomit that looks like it has “coffee grounds” in it, vomiting blood, or black, tarry bowel movements, while taking NSAIDs, stop the NSAID and see a doctor immediately. COXIBs are NSAIDs that have been custom-designed to reduce the risk of stomach side effects.

Health Canada has reviewed all of the available studies on NSAIDs and COXIBs and found that NSAIDs and COXIBs are both associated with an increased risk of cardiovascular events (angina, heart attacks and strokes). The risk is greatest in those patients who use these medications for long periods of time and have risk factors for, or a history of, cardiovascular disease. Please discuss this with your doctor.



## Corticosteroids

Cortisone is a hormone produced naturally by the body's adrenal glands. In the 1950's physicians found that giving extra cortisone to patients with rheumatoid arthritis dramatically improved their symptoms. From this discovery, corticosteroids, also known as steroids, were developed and are some of the oldest, most effective, and fastest-working medications for RA. Steroids can be taken orally (prednisone), injected into the joint, injected into a muscle, or through an intravenous drip.

Corticosteroids often cause an increased appetite and result in weight gain. Therefore it is important to follow a healthy diet and exercise (as best as possible). They can also increase your risk of infection so see your doctor if you develop a fever, chills, or other symptoms of infection. When used for long periods of time, steroids can thin your bones (osteoporosis) increasing your risk of fracture, thin the skin causing easy bruising, and cause cataracts. A very rare side effect of corticosteroids, osteonecrosis, results in loss of blood supply to the end of a long bone. The most common place for this to happen is in the hip bone (femur) but occasionally the knee or shoulder could be involved. If you develop sudden severe pain in one of the groins, contact your doctor immediately.

## Biologic DMARDs

The biologics are a class of medications specially designed to treat rheumatoid arthritis. There are a number of biologics available which work by different mechanisms. Like DMARDs, biologics are used to suppress inflammation and help prevent damage to the joint.

In some people with arthritis, a protein called Tumour Necrosis Factor (TNF) is present in the blood and joints in excessive amounts where it increases inflammation (pain & swelling). Adalimumab (Humira®), Etanercept (Enbrel®), and Infliximab (Remicade®) are proteins specially designed to block the action of TNF. Anakinra (Kineret®) is designed to interfere with another protein, interleukin-1 (IL-1), which also plays a role in the inflammation of RA. Abatacept (Orencia®) is a protein designed to interfere with the ability of the body's immune T-cells to talk to each other. By blocking this interaction, the production of TNF is reduced. Rituximab (Rituxan®) is a protein designed to attach to and destroy some of the body's immune B-cells which play a part in the pain and swelling caused by arthritis.

By blocking TNF, interfering with T-cell communication, and by eliminating B-cells, biologics work to suppress the body's immune system. Although this suppression can make it slightly harder to fight off infections, it also helps to stabilize an overactive immune system.

Depending on the biologic prescribed; they are either given by injection at home or by an intravenous infusion at a clinic or at home. Side effects occasionally seen with these medications include mild skin reactions at the injection site, headaches or dizziness, colds or sinus infections, and nausea or diarrhea. Your doctor will discuss all of the other side effects of these medications before he or she prescribes them.

## Commonly Prescribed Biologics for RA

BRAND NAMES	PRODUCT	COMMON DOSE
Enbrel	Etanercept	50 mg injection once a week or 25 mg injection twice a week
Humira	Adalimumab	40 mg injection every other week
Kineret	Anakinra	100 mg injection every day
Orencia	Abatacept	500 to 1000 mg intravenous (IV) infusion every month
Remicade	Infliximab	Intravenous (IV) infusion at 0, 2, 6 and then every 8 weeks
Rituxan	Rituximab	1000 mg intravenous (IV) infusion given twice two weeks apart

## What else should I know about Biologics?

### Precaution

Biologics work by suppressing your immune system which can make it slightly harder for you to fight off infections. Please inform your doctor if you are prone to frequent infections. It is advisable to stop your medication and call your doctor if you develop a fever, if you have or think you have an infection, or if you have been prescribed antibiotics. Before starting biologics, your doctor should check for other infections, such as tuberculosis with a skin test and a chest x-ray.

### Cost

Biologic treatments are costly, and can range anywhere from \$15,000 to over \$25,000 per year. Depending on the type of insurance coverage you have, treatments may be fully covered or you may be required to share the cost. Generally, provincial plans or private insurance companies will require patients to attempt other treatments before they will cover biologics.



## 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 unfavourable side effects are reported, documented, and addressed.

**For regular updates on medications available in Canada, visit [www.arthritis.ca/tips/medications](http://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 operates the MedEffect program, which provides centralized access to new safety information about health products in an easy to find, easy to remember location. MedEffect was developed to help build awareness about the importance of submitting adverse reaction reports to identify and communicate potential risks associated with certain drugs or health products. MedEffect aims to make it as simple and efficient as possible for health professionals and consumers to complete and submit adverse reaction reports. To find out more or to report an adverse reaction visit: [www.healthcanada.gc.ca/medeffect](http://www.healthcanada.gc.ca/medeffect) or call toll-free 1.866.234.2345.



## WHAT ELSE CAN I DO TO MANAGE MY DISEASE?

### Exercise

When done properly, exercise can help to lessen symptoms of RA and make you feel better overall. If done improperly, exercise can “flare” your arthritis. Therefore, an exercise program should be done under the guidance of a trained physiotherapist.

There are different types of exercises that you can do to lessen your pain and stiffness:

- **Range of motion exercises** reduce pain and stiffness and keep your joints moving. To achieve the most benefit these exercises should be done daily.
- **Strengthening exercises** maintain or increase muscle tone and protect your joints.
- **Moderate stretching exercises** help to relieve the pain and keep the muscles and tendons around an affected joint flexible. Your physiotherapist can guide you on what strengthening and stretching exercises are best and when they are appropriate.
- **Endurance exercises** strengthen your heart, give you energy, control your weight and help you feel better overall. These exercises include things like walking, swimming and cycling. It is best to avoid high impact exercises like step aerobics, jogging or kick boxing.

### Heat and Cold

**Heat** applied to an arthritic area can help relax aching muscles, and reduce pain and soreness. It promotes blood circulation, which nourishes and detoxifies muscle fibers. Taking a hot shower is a great way to help reduce pain and stiffness. To avoid making symptoms worse, heat should not be applied to an already inflamed joint.

**Cold** applied to inflamed joints reduces pain and swelling by constricting blood flow. Applying ice or cold packs appears to decrease inflammation and is recommended when joints are inflamed. You should not use ice if you have circulatory problems such as Raynaud's disease.

## Protecting your Joints

You should always use your joints in ways that avoid excess stress. This allows you to experience less pain, perform tasks more easily, and protect your joints from damage. Techniques to protect your joints include:

- **Pacing** by alternating heavy or repeated tasks with lighter tasks or breaks or frequently changing positions reduces the stress on painful joints and conserves energy by allowing weakened muscles to rest.
- **Positioning joints wisely** promotes proper alignment and decreases excess stress. Do this by maintaining proper posture and carrying heavy objects close to you. Use larger, stronger joints to carry loads. For example, use a shoulder bag instead of a hand-held one.
- **Adapting your daily activities and using helpful devices** can help to conserve energy and make daily tasks easier. Avoid positions that may cause excess stress, such as squatting or kneeling. Instead, raise seat levels to decrease stress on hip and knee joints. Enlarge grips on utensils such as spoons or peelers to decrease stress on delicate hand joints. Other devices to consider include canes, reaching aids, carts for carrying objects, or jar/tap openers.
- **Talk to your rheumatologist** about seeing an occupational therapist or physiotherapist who may prescribe splints, braces, or orthotics (shoe inserts), to help align and support your joints.



## Diet

There are many claims about diets which help or “cure” arthritis. Most of the information is confusing and claims made are usually not supported by scientific evidence. Simply put, there is no diet that has been proven to significantly improve rheumatoid arthritis. Some studies show that a diet low in animal proteins and dairy and higher in cold water fish (i.e. salmon) may reduce inflammation of RA to a small degree, but these have not been well proven. Despite this, many patients manipulate their diets as it gives them a sense of control over their disease. Until there is more conclusive evidence, most rheumatologists would recommend a common sense approach by eating a well-balanced diet aimed at maintaining a healthy weight.



## Relaxation & Coping Skills

Stress and over-activity can sometimes trigger a “flare” of your arthritis. Developing good relaxation and coping skills can help you maintain balance in your life giving you a greater feeling of control over your arthritis and a more positive outlook. Relaxing the muscles around an inflamed joint reduces pain. There are many ways to relax. Try deep breathing exercises. Listen to music or relaxation tapes. Meditate or pray. Another way to relax is to imagine, or visualize, a pleasant activity such as lying on the beach, or sitting in front of a fireplace. For more information on these skills see a psychologist, social worker or arthritis therapist.

## Surgery

Surgery is something that you and your doctor may consider if one of your joints becomes badly damaged, or if the pain is too intense. Some people with severe, advanced RA that have not responded to conservative management may benefit from surgery. Benefits include less pain, better movement and function, and in some cases, better physical appearance. There are a number of different kinds of surgery for RA ranging from minor procedures to complete joint reconstruction.

## WHAT QUESTIONS SHOULD I ASK MY RHEUMATOLOGIST?

**A recent study found that patients who learned more about their treatment and talked to their doctor about it had fewer symptoms, including less pain, and greater mobility.**

**It's important to get all the information you need to make an informed decision about the right treatment for you.**

Be sure to talk with your doctor about your RA, and ask questions about the disease and the different kinds of treatments. Before making a decision, you should understand what you can expect from a medication, what its possible side effects are and other important information. Also, ask what steps you can take to get your disease under control.

To help you get started, here are some common questions you may want to ask your doctor about RA treatment:

- What local resources are available so I can better educate myself about RA?
- Should I be referred to a physiotherapist or occupational therapist?

In regards to my medications:

- What are the possible side effects and how often do they occur?
- What should I do to minimize the chances of side effects?
- How can I keep track of the blood test results used to monitor me?
- How will I know if the drug is working, and how long will this take?
- Who do I contact if I have concerns about the medication?
- Will this interact with my other drugs?
- Are there drugs that I should stop taking now that I am beginning this new treatment?

## HOW CAN I LEARN MORE?

The Arthritis Society offers a number of services designed to help you live with arthritis.

### Arthritis Information Line – 1.800.321.1433

Dial The Arthritis Society's toll-free number to connect with staff or trained volunteers in your province or territory. You can request free information about different forms of arthritis or programs and services that are available. You can also get the names of health professionals in your area who specialize in arthritis.

### Website – [www.arthritis.ca](http://www.arthritis.ca)

Regularly updated educational materials, informative articles, 'ask the expert,' authoritative, expert-reviewed resources and a virtual community in our "Open Forums" of people with arthritis are just a mouse-click away at the official website for The Arthritis Society.

### Free Arthritis Registry – [www.arthritis.ca/registry](http://www.arthritis.ca/registry)

The Arthritis Society can help you understand your disease and what's happening to your body. By joining the free Arthritis Registry you will receive the specific information you need to manage your arthritis and improve your quality of life.

### Arthritis Self-Management Program (ASMP)

Managing arthritis means more than just visiting your doctor and taking the right medications. The Arthritis Society's six-week program of two hours per week will help you understand your type of arthritis, its treatments and teach you ways to cope with chronic pain. ASMP also offers a forum to share your personal experiences and challenges of living with arthritis.

### Arthritis Friendly Products



The Arthritis Society is proud to be able to recognize manufacturers that have designed products that are easy to use for people living with arthritis. There is quite a list of products that have been commended by The Arthritis Society and deemed "Arthritis Friendly". A full list and more information is available online at [www.arthritis.ca/arthritisfriendly](http://www.arthritis.ca/arthritisfriendly).