

CONSUMER'S GUIDE



ARTHRITIS MEDICATIONS

Endorsed by the Canadian Rheumatology Association



www.arthritis.ca

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, named MedEffect. 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.

LIMITATIONS OF THE GUIDE:

- This guide does not replace your doctor – it is essential that you see your doctor for proper diagnosis and treatment if you suffer from joint pain and swelling for longer than six weeks.
- This guide focuses on the treatment of osteoarthritis and rheumatoid arthritis in adults only. Treatment of other types of arthritis (including juvenile arthritis) is not included.
- If you are taking medication for another long-term health problem (such as heart, liver, and kidney conditions, high blood pressure, ulcers, or asthma), you should discuss possible drug interactions with your doctor. Also, if you are allergic to a specific medication, inform your doctor.
- If you are pregnant, trying to become pregnant or breast-feeding, you must inform your doctor since certain medications can be passed on through the placenta or into the mother's milk. If you are of child-bearing age, talk to your doctor about the importance of effective contraception.

WELCOME



This is a very exciting time in the treatment of arthritis. Several new medications have recently been developed to combat joint pain and inflammation and more are on the way! Many of these medications are safer and more effective than ever before, expanding the treatment options for people with arthritis.

The way in which doctors treat arthritis is beginning to change. We now know that for the best long-term health, as well as prevention of bone and joint damage, inflammatory arthritis (rheumatoid) needs to be treated early and aggressively. You can think of arthritis like a fire in the joints. Imagine there was a fire in your kitchen, if you leave it burning it will eventually destroy the kitchen and likely spread to other rooms in the house. The same is true for rheumatoid arthritis, if you leave the fire of arthritis burning it will eventually damage the bones and cartilage. The idea is to get the fire put out as quickly as possible to prevent the joints from becoming damaged. Again, if your kitchen was on fire it might take two or three fire trucks with their hoses to put the fire out. The same is true for arthritis, it might take two or three different medications to put the fire out. With this new approach to arthritis we are helping more and more people to lead normal active lives for years to come.

Although medications are only part of arthritis treatment, they are a very important part. This Consumer's Guide to Arthritis Medications is designed to help answer some of your questions about these medications. You should also discuss any questions you have with your doctor. The more you know about your disease and your medications, the better off you will be.

Andy Thompson, MD FRCPC

WE NOW KNOW THAT FOR THE BEST
LONG-TERM HEALTH, AS WELL AS PREVENTION
OF BONE AND JOINT DAMAGE, INFLAMMATORY
ARTHRITIS (RHEUMATOID) NEEDS TO BE
TREATED EARLY AND AGGRESSIVELY.

AN INTRODUCTION TO ARTHRITIS

WHAT IS ARTHRITIS?

The word arthritis literally means inflammation of the joint ("Arth" meaning joint and "itis" meaning inflammation). Inflammation is a medical term meaning pain, stiffness, redness, and swelling.

WHAT ARE THE TYPES OF ARTHRITIS?

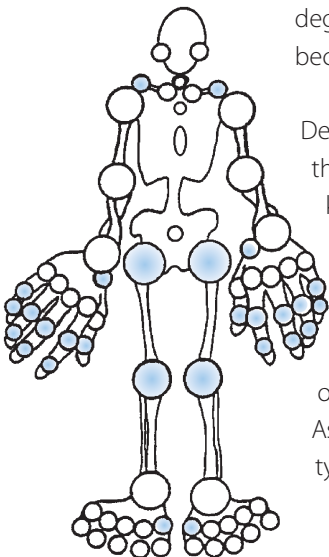
There are over 100 different types of arthritis. To keep things simple we will divide arthritis into two categories – inflammatory and degenerative.



WHAT IS DEGENERATIVE ARTHRITIS?

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 also allows the joints to move smoothly.

When a joint degenerates, the cartilage gradually becomes rough, begins to wear away, and the bone underneath thickens. With this degeneration, the joint, may in fact, become inflamed with pain, warmth, and swelling. Although we see signs of inflammation in degenerating joints they are not considered to be "inflammatory" because the cause of the inflammation is the degeneration itself.

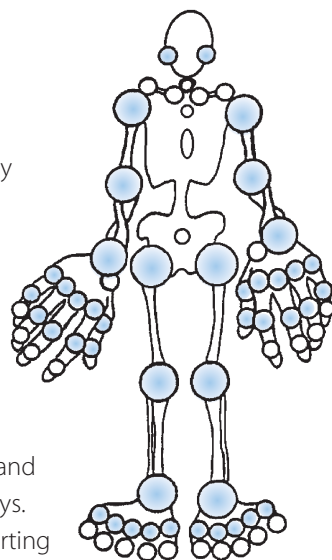


Degenerative arthritis tends to affect the joint at the base of the thumb, the end and or middle joints of the fingers, the hips, the knees, and the joints at the base of the big toe. Most people notice degenerative arthritis as they get into their 40's or 50's, however, in some people it can start earlier.

A person with degenerative joint disease may notice some stiffness of the affected joint in the morning lasting about 15-20 minutes. As the day progresses and they use the joint the pain and discomfort typically increases and improves with rest.

WHAT IS INFLAMMATORY ARTHRITIS?

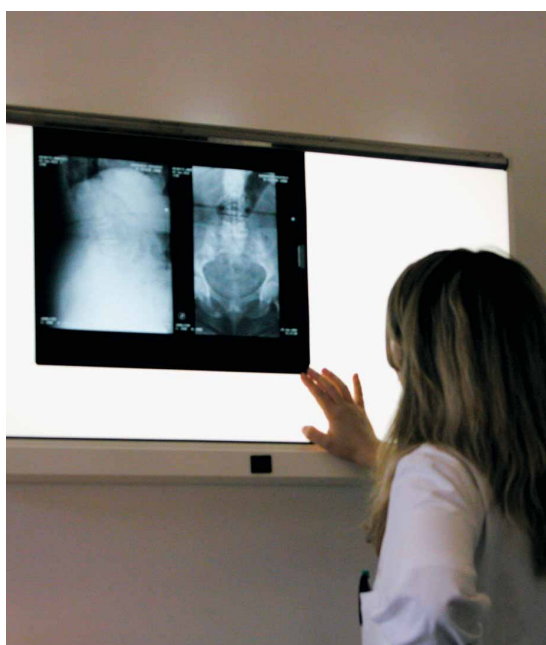
Each joint in the body is lined by a thin layer of tissue called synovium. The synovium is responsible for making small amounts of fluid to keep the normal joint lubricated. In cases of inflammatory arthritis, for some reason the body's immune system becomes confused and begins to attack the synovium. Chemicals released by the body's immune system cause swelling, pain, and stiffness of the joints and can eventually damage or destroy the cartilage and bone.



Inflammatory arthritis can affect any joint in the body. The more common joints involved tend to be the small joints of the hands and feet. Inflammatory arthritis can begin in a number of different ways. The most common way is a slow onset of joint pain and stiffness starting in one joint and spreading to involve more joints over a period of weeks to months. It can also start very dramatically (almost overnight) or can start slowly with pain in joints that seems to “jump around” from joint to joint.

Inflammatory arthritis causes aching, pain, stiffness, warmth, and swelling in the joints which are affected. The most striking characteristic is feeling stiff in the joints after rest. This is particularly apparent in the morning when the stiffness may take hours before feeling “looser”. In some people, the inflammation in the joints may be accompanied by a loss of energy (fatigue). Other symptoms might include low grade fevers, weight loss, muscle pain, or numbness and tingling in the fingers.

Most patients have symptoms that continue steadily while others have symptoms that seem to wax and wane with times of more severe joint pain and stiffness alternating with better times. The severity of symptoms varies greatly from person to person.



Once it is established, inflammatory arthritis is a chronic condition which will likely affect you for the rest of your life. As such, you will also need some type of medication to control your disease. It is usually a balancing act between taking *as much medication as needed* to control the arthritis and *as little medication as necessary* to prevent side-effects. Your doctor will adjust your dose or change your medications based on the latest results from your symptoms, findings on physical examination, and your laboratory tests.

A COMPARISON OF INFLAMMATORY & DEGENERATIVE ARTHRITIS

FEATURES	INFLAMMATORY ARTHRITIS	DEGENERATIVE ARTHRITIS
Who gets it?	Usually starts in middle age (30-60) and tends to get worse over time. However, it can start at any age	More common as we age and tends to occur in joints which have been "worn down" by excessive use
What is the cause?	The body's immune system attacks the joints ("Autoimmune")	Degeneration of cartilage
How does it start?	Fairly quickly adding joints over a period of weeks to months	Usually slowly with joints getting worse over a period of months to years
How many joints does it affect?	Usually affects lots of joints and tends to be symmetrical involving joints on both sides of the body (i.e. both hands, both elbows etc)	Usually affects a few joints and tends to be asymmetrical ("not matching") swelling and pain in single joints that are not part of a pair (i.e. one knee, one finger etc)
What joints can be affected?	Small joints of the hands and feet Wrists, elbows, shoulders, knees, hips Any joint can be affected	End joints of the fingers Pain and swelling in bigger joints such as the knees and hips
What are the usual symptoms?	Joint pain, swelling, tenderness, and redness of the joints Prolonged morning stiffness; and less range of movement Some people also experience fever, weight loss, fatigue, and/or anemia.	With use, the affected joints may become stiff, painful and enlarged
Morning stiffness?	Morning stiffness lasting more than 60 minutes	Morning stiffness lasting more than 20 minutes
Give examples of diseases?	Rheumatoid arthritis Psoriatic arthritis Ankylosing spondylitis Systemic lupus erythematosus	Osteoarthritis
What are the treatment options?	Non Steroidal Anti Inflammatory Drugs (NSAIDs) Disease Modifying Anti Rheumatic Drugs (DMARDs) Steroids Biologics Steroid Injections	Analgesics NSAIDs Injections: steroids & viscosupplementation (Hyaluronic acid)

LIVING WITH ARTHRITIS



I HAVE BEEN DIAGNOSED WITH ARTHRITIS?

If you have been diagnosed with arthritis, you're certainly not alone; there is hope. A famous Canadian rheumatologist, Dr. Duncan Gordon is noted for saying, "Everyone with arthritis can be helped." The management of arthritis involves a team including doctors, surgeons, nurses, physiotherapists, occupational therapists, social workers, pharmacists, dieticians, and YOU! Yes, you are an active member of your health care team.

TREATING YOUR ARTHRITIS

The treatment options for your arthritis will likely include both non-medication therapies such as physiotherapy, occupational therapy, education, exercise, and relaxation techniques, and medications. Medications to treat arthritis can be divided into two general categories – those which only control symptoms and those which control the symptoms and the disease.

MEDICATIONS FOR SYMPTOM CONTROL ONLY

These are medications used to control the pain, stiffness, and swelling of your joints with the goal of improving your function. They are used for both inflammatory and degenerative arthritis.

- Painkillers (analgesics) and anti-inflammatory medications (NSAIDs) fall into this category
- They usually take days to weeks to work
- Although they may make you feel better they do not affect the course of the arthritis nor will they prevent the damage to bones and joints that can occur with the disease.

Five Tips for Living with Arthritis

- 1 Get Educated:** know the type of arthritis you have and the treatments available.
- 2 Stay Involved:** be an active participant in decisions about your care.
- 3 Know Your Resources:** know where to get the support and resources you need.
- 4 Stay Healthy:** exercise regularly, eat a balanced healthy diet, and maintain a healthy weight.
- 5 Know Your Medications:** tell your health care provider about all of the prescription and non-prescription medications you are taking.

SYMPTOM CONTROL

PAIN MANAGEMENT

Pain from arthritis can be so intense and constant that it dominates your every waking moment (and can cause many sleepless nights). Due to the pain, you may be unable to continue with your routine daily activities and you may become less active in an attempt to keep your joints as comfortable as possible. Unfortunately, this inactivity can then have negative effects on your muscles and joints. This can then lead to a loss of strength, reduced flexibility, and more pain. Therefore, good pain control is essential in the treatment of arthritis.

Persistently severe pain from arthritis requires a combination of therapies as no single management technique is powerful enough to provide non-stop pain relief. You need to discover what works for you. This often means trying many different therapies or combinations of therapies for prolonged pain relief.

NON-MEDICAL TECHNIQUES FOR PAIN CONTROL

TECHNIQUES	
Physiotherapy	Ice/heat application to joints Muscle strengthening General conditioning programs and aqua therapy Transcutaneous Electronic Nerve Stimulation (TENS)
Occupational Therapy	Joint protection measures Energy conservation techniques Braces and splints to support painful joints Adapting your home, vehicle, or workplace for your arthritis Special equipment (raised toilet seats, jar openers, reachers etc)
Social Worker	Personal and family support Anger control techniques Community resources for financial techniques
Psychology	Relaxation techniques
Massage Therapy	Therapeutic massage
Dietician	Diet advice for weight loss
The Arthritis Society	Arthritis Self Management Programs (800#, website etc)

NON PRESCRIPTION MEDICATIONS FOR PAIN

Some pain-controlling medications can be bought over-the-counter without a doctor's prescription. You are probably familiar with many of these such as acetaminophen (Tylenol), ASA (Aspirin, Entrophen, Anacin, Novasen, etc), and ibuprofen (Motrin or Advil). There are also a number of topical non-prescription creams and rubs to help the pain of arthritis.

ACETAMINOPHEN

Acetaminophen is a very safe and effective medication for pain relief which can be used for both short and long-term pain control. If you have pain from a degenerative arthritis (osteoarthritis) that is present most of the time, your doctor may recommend that you take acetaminophen regularly – every four to six hours. When the pain is there all of the time, there is no point in waiting for it to become unbearable before taking your medication. Then you have to wait for the effects of the acetaminophen to “catch up” to the pain.

Although acetaminophen is safe, it does have its limits: you can take two regular strength tablets (325 mg each) to a maximum of 12 tablets in one 24-hour period, or two extra-strength tablets (500 mg each) every six hours up to a maximum of eight tablets in a 24-hour period, or two extended-release tablets (Tylenol-Arthritis®, 650 mg each) every eight hours up to a maximum of six tablets in a 24-hour period. Acetaminophen is found in other over-the-counter preparations such as cough and cold formulations. You must be careful to look at the ingredients of all of the over-the-counter medications you are taking to ensure you are not taking too much acetaminophen. The maximum daily recommended dose is 4 grams (4000 mg).

IBUPROFEN & ASA

Acetylsalicylic acid (ASA) and ibuprofen (Advil & Motrin) are non-steroidal anti-inflammatory drugs which can be purchased over-the-counter. You can learn more about NSAIDs in the chart on page 12. You must be careful to avoid taking ibuprofen with other NSAIDs your doctor may prescribe as it increases your risk of developing a stomach ulcer

TOPICAL MEDICATIONS

There are a number of over-the-counter creams and rubs available to help with the symptoms of arthritis. Some of these products contain salicylate (ASA) as the active ingredient whereas others contain capsaicin or menthol. Salicylate is available in Aspercreme, BenGay, and Flexall. Salicylates work by decreasing pain and inflammation. Capsaicin is found naturally in hot peppers, and sold under the brand names of Capzasin-P, Zostrix and other drugs. Capsaicin works by blocking the transmission of a pain-relaying substance called substance P to the brain. Camphor, eucalyptus oil and menthol are found in a variety of agents such as ArthriCare, Eucalyptamint and Icy Hot amongst others. These substances are able to relieve pain by tricking the body to feel the coolness or heat of these agents.



PRESCRIPTION MEDICATIONS FOR PAIN

Sometimes over-the-counter painkillers are not strong enough for your pain. Your doctor can help by prescribing stronger pain medications such as NSAIDs (*see table next page*) or narcotics. Narcotics are a class of pain medication which includes items such as codeine and morphine (*see table below*). These medications should be taken under the direct supervision of your physician to monitor side effects. Common side-effects of narcotics include nausea, constipation, drowsiness, and a dry mouth. Because these medications slow down digestion (constipation), be sure to drink six to eight tall glasses of water throughout the day.

COMMONLY PRESCRIBED NARCOTICS

BRAND NAMES	PRODUCT
Tylenol #1, #2, #3, Codeine Contin	Codeine
Morphine, M-Eslon, MS-Contin	Morphine
Dilaudid, Hydromorph-Contin	Hydromorphone
Percocet, Percodan, Oxycontin	Oxycodone
Demerol	Meperidine
Duragesic patches	Fentanyl



Will I become an addict?

Clinical research shows that people who take a narcotic at an appropriate dose for their level of pain are at low risk of becoming addicted. Why? Drug dependency is fuelled by psychological cravings for the euphoric effects of certain narcotics. Although codeine is a narcotic, when it's used for pain relief it usually doesn't produce the high that drug users seek. Still need convincing? Then ask yourself these questions: If you're not in pain and you don't take codeine, do you still feel a need for it? Do you require rapidly increasing doses to control the same level of pain? Finally, do you get "high" when you take codeine? Chances are you answered "no" to all these questions. If so, relax. You're not addicted to codeine.

concerns

NON-STEROIDAL ANTI-INFLAMMATORY DRUGS (NSAIDS & COXIBS)



WHAT ARE 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. COXIBs are NSAIDs that have been custom-designed to minimize the risk of stomach problems.

COMMONLY PRESCRIBED NSAIDS

BRAND NAMES	PRODUCT	CLASS	COMMON DOSE
Voltaren, Voltaren-SR Arthrotec-50, Arthrotec-75 Ultradol Indocid Clinoril Toradol	Diclofenac Diclofenac with Misoprostol Etodolac Indomethacin Sulindac Ketorolac	Acetic Acids	50-75 mg, 2-3 times daily 50-75 mg, 2-3 times daily 200-300 mg, 2-3 times daily 25-75 mg, 2-3 times daily 150-200 mg, twice daily 10 mg, 4-6 times daily
Celebrex	Celecoxib	COXIBs	100-200 mg, once or twice daily
Relafen	Nabumetone	Naphthylalkanones	1000 mg, twice daily
Mobicox Mobiflex Feldene Nalfon Ansaid, Froben, Froben-SR	Meloxicam Tenoxicam Piroxicam Fenoprofen Flurbiprofen	Oxicams	7.5-15 mg, once a day 10-20 mg, once a day 20 mg, once a day 600 mg, 3-4 times daily 100 mg twice daily
Motrin, Advil Orudis, Oruvail, Rhodis Naprosyn, Naprosyn-SR Daypro Surgam, Surgam-SR	Ibuprofen Ketoprofen Naproxen Oxaprozin Tiaprofenic Acid	Propionic Acids	400-800 mg, 3-4 times daily 50 mg, 3-4 times daily 500-750 mg, twice daily 1200 mg, once a day 200 mg, 3 times daily
Aspirin Dolobid Disalcid, Amigesic, Salflex	Acetylsalicylic Acid (ASA) Diflunisal Salsalate	Salicylates	325-650 mg, 4-6 times daily 250-500 mg, 2-3 times daily 1000 mg, 3 times daily

WHAT TYPES OF ARTHRITIS ARE NSAIDS USED FOR?

NSAIDs are used for both inflammatory and degenerative types of arthritis. It is important to remember that these medications work to improve symptoms and have no proven long term benefits. 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 may find it helpful to take their NSAID on a regular basis to control their symptoms.

HOW LONG DO NSAIDS TAKE TO WORK?

Some patients will notice the effects of an NSAID within the first few hours after taking a dose. In other patients the effects may not be evident for a few days and even up to a week or two after the medicine has been started. As a general rule, if it hasn't helped within 2-3 weeks it is unlikely to be of much benefit.

WHAT IS THE TYPICAL DOSE OF NSAIDS?

Every NSAID is different. Some are taken only once a day while others are taken up to four times a day. Your doctor will advise you of the correct dose to take.

WHICH NSAID IS RIGHT FOR ME?

There is no specific NSAID which will be right for you. Your doctor might ask you to try a few different NSAIDs as some may work better for you than others; these options and changes vary from person to person.

People who should probably avoid NSAIDs & COXIBs

- Anyone who is allergic to NSAIDs or is allergic to Aspirin
- Anyone who has asthma which is made worse while taking Aspirin
- Anyone who has had a recent ulcer in the stomach or small intestine
- Anyone with liver or kidney disease should discuss this with their doctor
- Anyone with congestive heart failure
- Anyone who has had a recent heart attack, stroke, or experienced serious chest pain related to heart disease

People who should be very careful taking NSAIDs & COXIBs

- Older patients (over age 65)
- Anyone who has had a previous stomach ulcer
- Anyone taking blood thinners such as Warfarin (Coumadin) or Heparin
- Anyone who has significant risk factors for heart attack or stroke should be aware that NSAIDs and COXIBs may increase this risk

NSAIDS

IS THERE ANYBODY WHO SHOULD AVOID OR BE CAREFUL TAKING NSAIDS & COXIBS?

Even though you can purchase NSAIDs like Aspirin, Motrin, and Advil without a prescription, some people should avoid taking them.

WHAT ARE THE SIDE-EFFECTS OF NSAIDS & COXIBS?

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. Ulcers usually cause stomach pain, nausea, and sometimes vomiting but in some people ulcers produce no symptoms whatsoever. Signs of stomach bleeding may include vomit that looks like it has “coffee grounds” in it, vomiting blood, or black, tarry bowel movements. See a doctor immediately if you develop any of these symptoms. NSAIDs can rarely irritate the liver or affect the kidneys. These problems usually don’t cause any symptoms. Fortunately they are rare and would be monitored by periodic blood tests if you are taking NSAIDs on a regular basis

SIDE EFFECTS OF NSAIDS & COXIBS

SYMPTOM	FREQUENCY	CALL DOCTOR
Nausea / heartburn / stomach pain / cramps	common	If severe or persistent
Constipation	common	If severe or persistent
Vomiting or diarrhea	rare	If severe or persistent
Skin rash	rare	Yes
Ringin g in the ears	rare	Yes
Dizziness or lightheadedness	rare	Yes
Increase in blood pressure	rare	Monitored periodically by your doctor
Black or bloody stool	rare	Yes
Wheezing or shortness of breath	rare	Yes
Fluid retention	rare	Yes
Chest pain or pressure	rare	Yes

DO I NEED ANY MONITORING WHILE I AM TAKING NSAIDS?

You don’t normally need regular bloodwork while taking NSAIDs. However, if you take NSAIDs regularly, your doctor will likely monitor your blood pressure and order periodic blood tests to ensure the NSAIDs are causing no problems with stomach bleeding or with your kidneys.

HOW CAN I HELP TO MINIMIZE SIDE EFFECTS OF NSAIDS?

Taking your NSAIDs with food may help to reduce stomach upset. Taking a medication to protect the stomach or using a COXIB may be helpful in reducing the risk of serious gastrointestinal side effects.

WHAT ARE THE RISKS OF HEART ATTACK & STROKE WITH NSAIDS & COXIBS

Health Canada and the U.S. Food and Drug Administration (FDA) have reviewed all of the available studies on NSAIDs and COXIBs. Both groups have 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. Health Canada's recommendations are as follows:

- Do not use NSAIDs or COXIBs directly before, during or after heart surgery (bypass surgery)
- Patients with a history of cardiovascular disease (angina, heart attack, TIA, stroke, or congestive heart failure) should be careful using NSAIDs or COXIBs.
- Patients with risk factors for cardiovascular disease (diabetes, smoking, elevated cholesterol, obesity and family history) should also be careful using NSAIDs and COXIBs. Safer alternative treatments should be used if available.
- NSAIDs and COXIBs should be used in the lowest effective dose for the shortest possible duration of time.

PLEASE DISCUSS THIS ISSUE WITH YOUR DOCTOR.

WHAT ARE COXIBS?

COXIBs are a new class of NSAIDs which have been developed to reduce the risk of gastrointestinal ulcers and bleeding. Currently in Canada celecoxib (Celebrex) is the only COXIB available; however others are under development. Although COXIBs are safer on the stomach they have all of the other side effects of NSAIDs and may still cause indigestion, nausea, stomach cramps, and heartburn.

WHAT TOPICAL NSAIDS ARE AVAILABLE?

In Canada, diclofenac (1.5%) is available in a topical preparation sold under the brand-name of Pennsaid. When applied as directed to the skin over a joint, very little of this medication is absorbed into the body which significantly reduces the usual side effects associated with NSAIDs. The common side-effects of Pennsaid include dry skin and rash at the site of application.

PROTECTING YOUR STOMACH



WHY IS PROTECTING THE STOMACH IMPORTANT?

Some of the medications used to treat arthritis (NSAIDs, prednisone) can irritate the lining of the stomach. If this irritation persists or is particularly aggressive it may result in the formation of ulcers in the stomach or the first part of the small intestine (duodenum). Ulcers commonly cause pain although sometimes they can be painless.

WHO SHOULD RECEIVE MEDICATION TO PROTECT THE STOMACH?

Patients that have stomach upset with NSAIDs or have risk factors for stomach ulcers (e.g. aged 65+, a previous stomach ulcer or bleeding from the bowels, using multiple NSAIDs including ASA, taking anticoagulants (coumadin), or corticosteroids) should discuss stomach protection with their doctor.

WHAT MEDICATIONS ARE USED TO PROTECT THE STOMACH?

There are currently two available stomach protection medications – misoprostol and proton pump inhibitors.

MISOPROSTOL

Brand Name: Cytotec

Supplied: 100 & 200 mcg tablets

What is Misoprostol?

Misoprostol replaces a naturally occurring substance that helps maintain the stomach's protective mucous lining.

What is the typical dose and when do I take it?

The usual dose of misoprostol is 200 mcg taken two to three times per day. The medication, Arthrotec, is actually a combination of an anti-inflammatory (diclofenac) and misoprostol.

Is there anybody who should not take misoprostol?

Any woman who is pregnant or may become pregnant should not take misoprostol since it can cause emergency complications such as an incomplete miscarriage.

What are the side effects of Misoprostol?

Your body may take two or three days to adjust to misoprostol, during which time, you may experience nausea, cramps, and diarrhea (loose stools). These common side effects often disappear completely, but if they persist, contact your doctor.

PROTON PUMP INHIBITORS

Brand Names: Esomeprazole (Nexium), Lansoprazole (Prevacid), Omeprazole (Losec), Pantoprazole (Pantoloc) Rabeprazole (Pariet)

Supplied: Esomeprazole 20 & 40 mg tablets, Lansoprazole 15 & 30 mg tablets, Omeprazole 20 mg tablets, Pantoprazole 40 mg tablets, Rabeprazole 10 & 20 mg tablets

What are Proton Pump Inhibitors (PPIs)?

Proton pump inhibitors (PPIs) are a class of medications which work by stopping your stomach from producing ulcer-causing acid. When taken with an NSAID, PPIs reduce the risk of developing ulcers and promote ulcer healing. They are also quite good at reducing symptoms of stomach upset, such as nausea, heartburn, and indigestion.

What is the typical dose and when do I take it?

The dose varies depending on which PPI your doctor has prescribed. They are typically taken once to twice a day.

What are the side effects of PPIs?

Proton pump inhibitors have very few side effects.

MEDICATIONS FOR SYMPTOM AND DISEASE CONTROL



These medications are only available for the treatment of inflammatory arthritis because there are no known medications to slow down degenerative arthritis. They work to prevent joint damage and bone erosion in inflammatory arthritis that can lead to deformities. The goal is to keep your joints healthy for years to come.

- DMARDs and biologics fall into this category
- These medications often take 6-12 weeks to begin to have an effect. They work to address the root of the problem in inflammatory arthritis. Shutting down the inflammatory processes can take a long time but the result of healthy joints will be worth it.

DISEASE MODIFYING ANTI-RHEUMATIC DRUGS (DMARDs)



WHAT ARE DMARDs?

DMARDs are a class of medications used to treat inflammatory types of arthritis such as rheumatoid and psoriatic arthritis. Inflammation in the joint causes it to be warm, swollen, and sore. You can think of this inflammation like a “fire in the joint.” If we leave this fire going untreated it might burn down (damage) the joint. Once the joint is damaged it cannot be repaired. Rheumatologists know that “putting out the fire” is important to prevent damage to the joint. This is where DMARDs come in. DMARDs are medications which put out the fire (suppress inflammation) and help to prevent damage to the joint. Doctors know that prescribing a DMARD early on is important to prevent long-term damage. After all, if there was a fire in your kitchen you wouldn’t wait until it spread to the living room you would try to put it out before it spread. This is the same idea with inflammatory arthritis!

HOW LONG DO DMARDS TAKE TO WORK?

DMARDs generally work well in most people; however, they do take some time to work. Most DMARDs will start to work in about 6 to 8 weeks; however, some may take longer – up to 3 to 4 months. While you are waiting for the DMARD to work, your doctor might prescribe an additional medication such as prednisone or an NSAID to help control the symptoms.

COMMONLY PRESCRIBED DMARDs

BRAND NAMES	PRODUCT	COMMON DOSE
Imuran	Azathioprine	50-150 mg daily 1 to 3 tablets daily
Myochrisine	Gold (Sodium aurothiomalate)	50 mg once weekly injection
Plaquenil	Hydroxychloroquine	200-400 mg daily 1-2 tablets
Arava	Leflunomide	10-20 mg daily or every other day 1 tablet daily or every other day
Methotrexate	Methotrexate	7.5 to 25 mg once weekly 3 to 10 tablets once weekly OR 0.3 to 1.0 mL injection once weekly
Salazopyrin	Sulfasalazine	1000 mg twice daily 2 or 3 tablets twice daily

WHICH DMARD IS RIGHT FOR ME?

Although DMARDs can be used one at a time, many studies show that two or three DMARDs taken together is of greater benefit than one medication alone. Although there is no specific DMARD which will be right for you, your doctor will recommend a therapy that is best suited to your type of arthritis, other medical problems, and medications. Patients with mild arthritis may start with a single DMARD such as hydroxychloroquine or methotrexate. Patients with more severe arthritis, on the other hand, need more aggressive treatment and may receive two or three medications at the same time.

HOW LONG WILL I HAVE TO TAKE MY DMARD?

Once it is established, inflammatory arthritis is a chronic condition which will likely affect you for the rest of your life. As such, you will also need some type of medication to control your disease. It is usually a balancing act between taking as much medication as needed to control the arthritis and as little medication as necessary to prevent side-effects. Your doctor will adjust your dose or change your medications based on the latest results from your symptoms, findings on physical examination, and your laboratory tests.

WHAT ABOUT SIDE EFFECTS?

Unfortunately, everything in life carries some risk which must be balanced against the potential benefits. In general, the risk of joint damage and permanent disability is much greater than the risk of side effects to medications (DMARDs) used to control the disease. When properly monitored, the vast majority of side-effects are rare and most are reversible by adjusting the dose or switching medications.

AZATHIOPRINE (AZA)

Brand Name: Imuran®

Supplied: 50 mg tablets

What types of arthritis is azathioprine used for?

Azathioprine (AZA) is a DMARD used to treat inflammatory types of arthritis like rheumatoid and psoriatic arthritis.

What is the typical dose and when do I take it?

AZA is taken as tablets every day. The usual starting dose is 50 to 100 mg per day (1 to 2 tablets). Your doctor may further increase the dose to 100 to 200 mg per day (2 to 4 tablets).

How long will it take to work?

Unfortunately, like many of the DMARDs, you won't feel the effects of AZA right away. Most people start noticing the effects about 6 to 8 weeks after they start to take it.

Azathioprine Key Points

key points

- 1 Take it once a day
- 2 Regular blood tests
- 3 Don't get pregnant
- 4 Call MD if you develop a rash
- 5 See MD if you develop a fever

Is there anybody who should not take azathioprine?

It is generally advisable to avoid all medications during pregnancy and breast feeding including AZA. However, under special circumstances, AZA has been used safely and successfully to treat arthritis during pregnancy. People with active infections, liver, kidney, or blood diseases may not be able to use AZA and should discuss with their doctor.

Is there anything I should avoid when I am taking azathioprine?

AZA has the potential to affect the liver (rarely), and so your alcohol use must be limited. Talk to your doctor. Allopurinol, a medication used to treat gout, can have a severe interaction with AZA. Inform your doctor if you are taking allopurinol.

What are the side effects of azathioprine?

SYMPTOM	FREQUENCY	CALL DOCTOR
Nausea & Diarrhea	common	If severe
Skin Rash	rare	Yes
Liver problems	rare	Monitored by regular blood tests
Blood counts	rare	Monitored by regular blood tests
Infection	rare	Yes – Call if you think you have an infection
Malignancy	very rare	When used for long periods of time AZA may be associated with an increased risk of skin or blood cancers; fortunately this is very rare.

Do I need any monitoring while taking azathioprine?

You will need regular blood tests to monitor your liver and blood counts for side effects of AZA.

How to help reduce side effects?

Take AZA as prescribed by your doctor. Reducing the dose may be helpful in reducing side effects.

GOLD

Brand Name: Myochrisine

Supplied: Vials of 10, 25, and 50 mg per mL

What types of arthritis is gold used for?

Gold is a DMARD used to treat inflammatory types of arthritis like rheumatoid and psoriatic arthritis.

What is the typical dose and when do I take it?

Gold is given as an injection usually once a week. A very small test dose (10 mg) is given on the first week to make sure you are not overly sensitive. The second injection, a week later, builds up to 25 mg followed by 50 mg every week thereafter. If you respond very well to gold it may be possible to reduce the frequency of the injections to every two weeks or every month.

How long will it take to work?

Unfortunately, like many of the DMARDs, you won't feel the effects of gold right away. Most people start noticing the effects about 12 weeks after they start to take it.

Is there anybody who should not take gold?

Anyone who has had a prior allergic reaction to gold should avoid it. People with certain kidney or blood diseases may not be able to use gold and should discuss with their doctor.

What are the side effects of Gold?

SYMPTOM	FREQUENCY	CALL DOCTOR
Skin rash and itchiness	common	Tell doctor before next injection is given as the gold may need to be temporarily stopped. Call if severe.
Mouth Sores	rare	Tell doctor before next injection is given as the gold may need to be temporarily stopped. Call if severe.
Metallic Taste	rare	No
Aching in muscles and joints	rare	No
Allergic Reaction	rare	Some patients experience weakness, faintness, dizziness, or nausea after receiving the gold injection. This usually goes away after you lie down for a few minutes.
Blood counts	rare	Monitored by monthly blood test
Kidney Problems	rare	Monitored by monthly urine tests
Lung Problems	very rare	Yes, call if you develop new shortness of breath
Bowel Problems	very rare	Tell your doctor if you develop blood in the stool

Gold Key Points

- 1 Given ONCE A WEEK**
- 2 Frequent blood and urine tests**
- 3 Tell MD if you develop a rash, itchiness, or mouth sores**

key points

Is there anything I should avoid when I am taking gold?

Although it is generally advisable to avoid all medications during pregnancy, gold has been used safely and successfully to treat arthritis during pregnancy. Most medications can be given safely with gold.

Do I need any monitoring while taking gold?

At the beginning you will need blood and urine tests every week. After a few months the blood and urine can be tested every other week and then eventually monthly to monitor your blood counts and urine for side effects of gold.

How to help reduce side effects?

Inform your doctor of any rashes, itchiness or sores in the mouth prior to each injection of gold. Get your urine and blood tests done regularly as directed by your doctor.

HYDROXYCHLOROQUINE (HCQ)

Brand Name: Plaquenil®

Supplied: 200 mg tablets

What types of arthritis is hydroxychloroquine used for?

HCQ is a DMARD used to treat inflammatory types of arthritis like rheumatoid and psoriatic arthritis.

What is the typical dose and when do I take it?

HCQ is given as tablets taken once or twice a day and the dose is based on your body weight. Each tablet contains 200 mg of HCQ. The most common dose is one to two tablets per day or 200 to 400 mg. If you require 300 mg per day your doctor may ask you to take two tablets one day and one the next. If you are taking two tablets a day you can take them both at once or take divide them up – one in the morning and one in the evening.

How long will it take to work?

Unfortunately, like many of the DMARDs, you won't feel the effects of HCQ right away. Most people start noticing the effects about 6 to 8 weeks after they start to take it but the benefit may not occur for 3 months.

Do I need any monitoring while taking hydroxychloroquine?

Although you do not need any regular blood tests while taking HCQ, your doctor may order periodic tests to follow the activity of your arthritis.

However, you do need to have your eyes tested at least once a year while taking HCQ. Rarely, hydroxychloroquine (Plaquenil®) can cause problems in the back of the eye (retina). If this rare event were to occur, you might notice a problem with reading or seeing (words, letters, or parts of objects which would appear to be missing) or blurred vision. These problems seem to be related to the daily dose of medication. Fortunately, this is **very rare**. Early eye problems are not usually a serious problem and indicate sluggish muscles involved in focusing the lens of the eye. Damage to the retina almost never occurs until one has been on this medication for over 2 years. However, once damage occurs, it may be permanent.

Therefore, appropriate monitoring of the eye by a medical specialist familiar with the use of chloroquine and hydroxychloroquine is essential. The eye examination should include tests such as vision and eye pressure. It also includes tests which are not part of a routine check-up such as testing for colour vision and testing your visual fields.

with the side-effects of chloroquine and hydroxychloroquine is essential. The eye examination includes regular tests such as vision and eye pressure. It also includes tests which are not part of a regular eye check-up such as testing for colour vision and testing your visual fields.

Hydroxychloroquine Key Points

- 1 Taken once or twice daily
- 2 Yearly eye tests
- 3 Call MD if you get a rash

key
points

LEFLUNOMIDE (LEF)

Brand Name: Arava®
Supplied: 10 & 20 mg tablets

What types of arthritis is leflunomide used for?

Leflunomide (LEF) is a DMARD used to treat inflammatory types of arthritis like rheumatoid and psoriatic arthritis.

What is the typical dose and when do I take it?

LEF is taken as a tablet every day or every other day. The usual dose is 10 to 20 mg per day. Taking 20 mg every other day is very similar to taking 10 mg daily and is cheaper!

How long will it take to work?

Unfortunately, like many of the DMARDs, you won't feel the effects of LEF right away. Most people start noticing the effects about 6 to 8 weeks after they start to take it.

What are the side effects of leflunomide?

SYMPTOM	FREQUENCY	CALL DOCTOR
Nausea and diarrhea	common	If severe
Skin rash	rare	Yes
Thinning hair	rare	If severe
Increase in blood pressure	rare	Have BP monitored by family doctor regularly
Lung problems: difficulty breathing, dry cough, fever	rare	Yes – always
Liver problems	rare	Monitored by regular blood tests
Blood counts	rare	Monitored by regular blood tests
Infection	rare	Yes – Call if you think you have an infection

Leflunomide Key Points

- 1 Take it once a day**
- 2 Avoid alcohol**
- 3 Regular blood tests**
- 4 Don't get pregnant**
- 5 Call MD if you develop a rash**
- 6 Stop LEF if you develop shortness of breath, dry cough or fever**

key
points

Is there anybody who should not take leflunomide?

Any woman who is pregnant or may become pregnant should not take LEF. LEF taken during pregnancy can cause birth defects in the unborn child and should be avoided at all cost. Any woman who is breastfeeding should also avoid LEF. People with active infections, liver, kidney, or blood diseases may not be able to use LEF and should discuss with their doctor.

Is there anything I should avoid when I am taking leflunomide?

Yes, avoid alcohol. LEF has the potential to affect the liver (rarely), and so your alcohol use must be severely restricted. Talk to your doctor.

Do I need any monitoring while taking leflunomide?

You will need regular blood tests to monitor your liver and blood counts for side effects of LEF.

How to help reduce side effects?

Take LEF as prescribed by your doctor. Reducing the dose to 10 mg per day or taking 20 mg every other day may be helpful in reducing side effects.

METHOTREXATE (MTX)

Brand Name: APO-Methotrexate

Supplied: 2.5 mg tablets, 50 mg/2mL vials for injection

What types of arthritis is methotrexate used for?

MTX is a DMARD used to treat inflammatory types of arthritis like rheumatoid and psoriatic arthritis.

What is the typical dose and when do I take it?

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 the MTX. If you are taking the tablets, each tablet contains 2.5 mg of MTX with the most common dose ranging from 3 to 10 tablets per week or 7.5 to 25 mg. If you are taking 6 or more tablets a week the dose can be split to take half in the morning and half at night (e.g. if you are taking 6 tablets a week you take 3 with breakfast and 3 with dinner). If you are taking the injection, methotrexate is supplied in 2 mL vials containing a total of 50 mg. The most common dose with injections ranges from 0.3 mL to 1.0 mL per week or 7.5 to 25 mg.

How long will it take to work?

Unfortunately, like many of the DMARDs, you won't feel the effects of MTX right away. Most people start noticing the effects about 6 to 8 weeks after they start to take it.

Is there anybody who should not take methotrexate?

Any woman who is pregnant or may become pregnant should not take MTX. MTX taken during pregnancy can cause birth defects in the unborn child or even a miscarriage and should be avoided at all cost. Any woman who is breastfeeding should also avoid MTX. People with active infections, liver, kidney, or blood diseases may not be able to use MTX and should discuss with their doctor.

Is there anything I should avoid when I am taking methotrexate?

Yes, avoid alcohol. MTX has the potential to affect the liver (rarely), and so your alcohol use must be restricted. Talk to your doctor. The antibiotic trimethoprim (proloprim) should not be used with MTX. Trimethoprim is often combined with sulfa antibiotics. If you need an antibiotic for bladder, ear, or chest infection make sure that any doctor who treats you is aware of this restriction.

What are the side effects of methotrexate?

SYMPTOM	FREQUENCY	CALL DOCTOR
Feel unwell for 24-48 hours	common	If severe
Increased sun sensitivity	rare	No – wear a minimum SPF 15 sunscreen
Headaches	rare	If severe
Hair loss	rare	No unless very severe
Mouth sores	rare	Yes – reduced with folic acid
Lung problems: difficulty breathing, dry cough, fever	rare	Yes – always
Liver problems	rare	Monitored by regular blood tests
Blood counts	rare	Monitored by regular blood tests
Infection	rare	Yes – Call if you think you have an infection

Methotrexate Key Points

- 1 Take it only ONCE A WEEK**
- 2 Avoid alcohol**
- 3 Regular blood tests**
- 4 Avoid sulfa antibiotics**
- 5 Don't get pregnant**
- 6 Stop MTX if you develop shortness of breath, dry cough or fever**

key
points

Do I need any monitoring while taking methotrexate?

You will need regular blood tests to monitor your liver and blood counts for side effects of methotrexate.

How to help reduce side effects?

To reduce some of the side effects of methotrexate (such as nausea and mouth sores) your doctor might suggest a supplement called folic acid to be taken daily or a few times a week while you are on MTX. Taking the MTX before going to bed can sometimes help as you may sleep through any unpleasantness such as nausea. Finally, switching from tablets to injections can help to reduce nausea and feelings of general unwellness.

SULFASALAZINE (SSZ)

Brand Name: Salazopyrin

Supplied: 500 mg tablets; 500 mg EC tablets

What types of arthritis is sulfasalazine used for?

SSZ is a DMARD used to treat inflammatory types of arthritis like rheumatoid and psoriatic arthritis.

What is the typical dose and when do I take it?

SSZ is taken as tablets usually given twice a day. Each tablet contains 500 mg of SSZ. The commonest dose is 2 tablets (1000 mg) twice a day; however, your doctor may increase the dose to 3 tablets twice a day. As SSZ can upset the stomach, it is important to start the medication gradually and build up as directed by your doctor.

How long will it take to work?

Unfortunately, like many of the DMARDs, you won't feel the effects of SSZ right away. Most people start noticing the effects about 6 to 8 weeks after they start to take it.

Is there anybody who should not take sulfasalazine?

Anyone who has had a prior allergic reaction to medications containing sulfa should avoid sulfasalazine. Patients who have had an allergy to ASA (Aspirin) should also avoid sulfasalazine.

Is there anything I should avoid when I am taking sulfasalazine?

Although it is generally advisable to avoid all medications during pregnancy, SSZ has been used safely and successfully to treat arthritis during pregnancy. Most medications can be given safely with SSZ.

What are the side effects of sulfasalazine?

SYMPTOM	FREQUENCY	CALL DOCTOR
Nausea, diarrhea, and abdominal pain	common	If severe
Headaches or slight dizziness	common	If severe
Rash	common	Yes
Sensitivity to the sun	common	No – wear a minimum SPF 15 sunscreen
Blood counts	rare	Monitored by regular blood tests
Liver problems	very rare	Monitored by regular blood tests
Kidney problems	very rare	Monitored by regular blood tests
Infertility	very rare	May temporarily reduce sperm counts in men

Do I need any monitoring while taking sulfasalazine?

You will need regular blood tests to monitor your blood counts for side effects of sulfasalazine.

How to help reduce side effects?

To reduce some of the side effects of sulfasalazine your doctor might suggest you start with a low dose (one tablet once or twice a day) and increase the dose slowly (adding a tablet or two every week) until you reach the final dose. Taking sulfasalazine with food may also help.



Sulfasalazine Key Points

- 1 Take it twice a day
- 2 Regular blood tests
- 3 Call MD if you develop a rash

key
points

CORTICOSTEROIDS



WHAT ARE CORTICOSTEROIDS?

Cortisone is a hormone produced naturally by the body’s adrenal glands that regulates routine inflammation from minor injuries. Major traumas such as broken bones or surgery depend upon the adrenal gland to produce even more cortisone. But the adrenal gland could never produce enough cortisone to meet the challenge of inflammatory arthritis. 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 inflammatory arthritis. Steroids can be given by mouth (prednisone), injected into the joint, injected into a muscle, or through an intravenous drip.

COMMONLY USED STEROIDS

BRAND NAMES	PRODUCT	COMMON DOSE RANGE	ROUTE
Prednisone	Prednisone	Low Dose: 1-10 mg per day Mod Dose: 10-20 mg per day High Dose: 20+ mg per day	ORAL
Solumedrol®	Methylprednisolone	100-1000 mg	INTRAVENOUS (IV)
Solumedrol® Kenalog® Aristospan® Celestone Soluspan®	Methylprednisolone Triamcinolone Acetonide Triamcinolone Hexacetonide Betamethasone	100-1000 mg 10-80 mg 10-80 mg 1-12 mg	INTRA-ARTICULAR (Joint Injection)
Depomedrol®	Methylprednisolone	40-120 mg	INTRA-MUSCULAR (Muscle Injection)

HOW LONG DO CORTICOSTEROIDS TAKE TO WORK?

Steroids work quickly (usually within a few days) and some patients start to feel better within hours of taking the first dose.

WHICH STEROID IS RIGHT FOR ME?

Only you and your doctor can make this decision since it depends on your individual condition. To maximize benefits and minimize side effects, doctors prescribe corticosteroids in doses as low as possible and for as short of a time as possible to get the job done. Dosages vary widely and are based on your disease and the goals of treatment. For example, low doses of prednisone (5-10 mg) may be sufficient for the joint inflammation in rheumatoid arthritis, whereas much higher doses would be needed to control lupus-related kidney inflammation.

HOW LONG WILL I HAVE TO TAKE CORTICOSTEROIDS?

Only your doctor can make this decision since it depends on your individual condition. Steroids are often used as interim measures in inflammatory types of arthritis, such as RA and lupus, to get control of inflammation while waiting for the slower-acting DMARDs to take effect.

STEROID INJECTIONS

Brand Names: Solumedrol, Kenalog, Aristospan, Celestone, Soluspan

What types of arthritis are steroid injections used for?

Steroid injections, also referred to as cortisone injections, are used to help relieve the pain and swelling associated with many types of arthritic conditions including both inflammatory and degenerative types of arthritis. Injecting a steroid in or around the joint is an effective way to locally reduce pain and swelling reducing the need to take extra pills.

How long will it take for the injection to work and how long will it last?

Most injections typically take 24-48 hours to take full effect. If local anesthetic ("freezing") was given with the injection you may feel improvement quite quickly. After the injection it is normal to feel a transient increase in discomfort in the joint which should resolve within 24 hours. You can treat this by applying a cold pack or by using medications such as acetaminophen (Tylenol®) or non-steroidal anti-inflammatory drugs (check with your doctor). If possible, it is best to rest the joint for 24-48 hours after an injection as studies have shown this may improve the effect of the injection. However, the length of time an injection will last is variable. Some patients report months of relief while others find only a few days of relief.

Steroid Injections Key Points

key points

- 1 Rest the joint for 24 hours after the injection
- 2 If the joint becomes very painful, red, or swollen after the injection seek medical attention

Is there anybody who should not be given an injection?

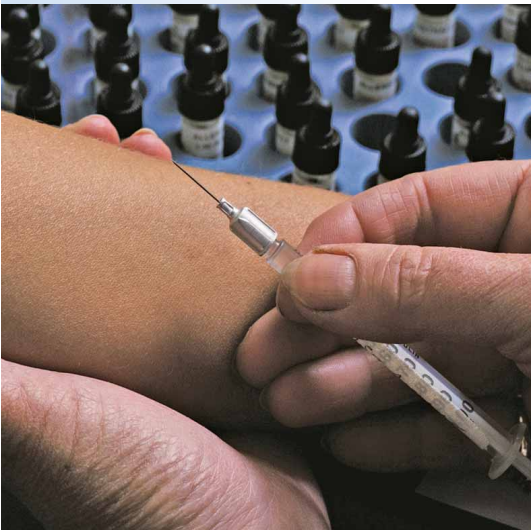
For the most part steroid injections are very safe and suitable for most people. Anyone who has had a serious allergic reaction to steroids and those with an infection in the joint or in the skin or soft-tissues overlying the joint should not be given injections.

What are the side effects of steroid injections?

SYMPTOM	FREQUENCY	CALL DOCTOR
Infection	rare	If the injected joint becomes very painful, red, or swollen after an injection seek medical attention immediately as the joint may be infected. The risks are very low (1 in 15,000).
Injury to the joint or tendon	rare	Yes
Loss of fat layer below the skin	rare	No
Loss of pigment in the skin	rare	No
Calcium buildup around the joint	rare	No

How often can I have repeat injections?

If a significant benefit is achieved after one injection then an argument can be made for repeat injections. There is some debate that too many injections may weaken tendons, ligaments, and damage cartilage but other studies have found that injections can actually slow down the rate of damage and help preserve the joint. As a general rule a reasonable approach is to limit the frequency of injections to 3 to 4 for a single joint per year.



PREDNISON

Brand Name: APO-Prednisone

Supplied: 1, 5, & 50 mg tablets

What types of arthritis is prednisone used for?

Prednisone is a steroid used to treat inflammatory types of arthritis like rheumatoid and psoriatic arthritis, lupus, and polymyalgia rheumatica.

What is the typical dose and when do I take it?

Prednisone is given as tablets. The dose of prednisone varies widely and is based on your disease and the goals of therapy. Therefore, there is really no standard dose. Low-dose prednisone is between 1 and 10 mg per day, moderate doses are between 10 and 20 mg per day, and higher doses range from 20 mg per day and upwards.

How long will it take to work?

Prednisone works very quickly – usually within one to four days – if the prescribed dose is adequate to reduce your particular level of inflammation. Some people notice the effects of prednisone hours after taking the first dose.

Is there anybody who should not take prednisone?

Prednisone is very safe and can be given to almost everyone. If you have had a previous severe allergic reaction to prednisone you should not use it.

Is there anything I should avoid when I am taking prednisone?

Although it is generally advisable to avoid all medications during pregnancy, prednisone has been used safely and successfully to treat arthritis during pregnancy. Most medications can be given safely with prednisone.

Prednisone Key Points

- 1 Take it as directed**
- 2 Do not stop it abruptly**
- 3 Get a medic-alert bracelet**
- 4 If you develop sudden severe pain in the groin – seek medical attention**
- 5 Protect your bones**
- 6 Watch out for infection**

key
points

What are the side effects of prednisone?

SHORT-TERM SIDE-EFFECTS OF PREDNISONE

(As the dose is decreased and stopped these side-effects disappear)

SYMPTOM	FREQUENCY		CALL DOCTOR	
	Low Dose	High Dose	If Severe	Always
Increased appetite	✓	✓	✓	-
Weight gain /“moonface”	-	✓	✓	-
Emotional sensitivity	✓	✓	✓	-
Difficulty sleeping	✓	✓	✓	-
Restlessness / tremor	✓	✓	✓	-
Lower resistance to infection	✓	✓	✓	-
Nausea or indigestion	-	✓	✓	-
Blurry vision	-	✓	✓	-
Rise in blood pressure	-	✓	✓	-
Fluid retention	✓	✓	✓	-
Rise in blood sugars	✓	✓	✓	-
Irregular menstrual cycle	-	✓	-	✓
Acne	-	✓	-	-
Hair growth	-	✓	✓	-

LONG-TERM SIDE-EFFECTS OF PREDNISONE

(As the dose is decreased and stopped these side-effects disappear)

SYMPTOM	FREQUENCY		CALL DOCTOR	
	Low Dose	High Dose	If Severe	Always
Easy bruising/thin skin	✓	✓	✓	
Muscle Weakness	-	✓	✓	
Cataracts or glaucoma	-	✓	Monitored by MD	
Osteoporosis	✓	✓	Monitored by MD	
Avascular necrosis	✓	✓	✓	

Do I need any monitoring while taking prednisone?

No, you do not need to have regular blood tests while taking prednisone. However, if you are taking prednisone for longer periods of time (more than 3 months) your doctor will likely arrange periodic bone mineral density (BMD) tests of your bones.

How to help minimize the effects of prednisone?

If you will be taking prednisone for a prolonged period (more than 3 months) obtain a MEDIC-ALERT BRACELET (www.medicalert.ca or phone 1-800-668-1507)

SIDE EFFECT	WHAT TO DO
Increased appetite & weight gain	Follow a healthy diet and if possible exercise regularly
Infection	If you develop a fever, chills or other symptoms of infection see your doctor.
Osteoporosis	Calcium & Vitamin D supplements Your doctor may prescribe a bisphosphonate medication to reduce the risk of osteoporosis (e.g. alendronate, risendronate, etidronate)
Avascular necrosis	If you develop sudden severe pain in one of the groins contact your doctor immediately.

How do I stop Prednisone?

DO NOT STOP YOUR PREDNISONE ABRUPTLY. Prednisone needs to be gradually reduced. Stopping prednisone too quickly can sometimes result in **SERIOUS** side-effects. Discuss with your doctor before making any changes in your dose.

BIOLOGICS



WHAT ARE BIOLOGICS?

The biologics are a class of medications specially designed to treat inflammatory types of arthritis such as rheumatoid and psoriatic 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, Etanercept, and Infliximab are proteins specially designed to block the action of TNF. Abatacept 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 is a protein designed to attach to and destroy 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 destroying 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.

COMMONLY PRESCRIBED BIOLOGICS

BRAND NAMES	PRODUCT	COMMON DOSE RANGE
Enbrel	Etanercept	50 mg injection once weekly or 25 mg injection twice weekly
Humira	Adalimumab	40 mg injection every other week
Kineret	Anakinra	100 mg injection every day
Orencia	Abatacept	500 to 1000 mg intravenous infusion every 4 weeks
Remicade	Infliximab	200 – 1000 mg intravenous infusion every 6 to 8 weeks
Rituxan	Rituximab	1000 mg intravenous infusion given twice two weeks apart

HOW LONG DO BIOLOGICS TAKE TO WORK?

Biologics generally work well in most people; however they can take some time to work. Some people may notice the effects of the medication quite quickly (within days to weeks) while others may take 3 to 6 months to feel the effect. Biologics are often combined with DMARDs.

WHICH BIOLOGIC IS RIGHT FOR ME?

Although there is no specific biologic which will be right for you, your doctor will recommend a therapy that is best suited to your type of arthritis, other medical problems, and medications. Your doctor will discuss the benefits of each biologic, how the medication is given, and the potential side effects.

HOW LONG WILL I HAVE TO TAKE MY BIOLOGIC?

Once it is established, inflammatory arthritis is a chronic condition which will likely affect you for the rest of your life. As such, you will also need some type of medication to control your disease. It is usually a balancing act between taking as much medication as needed to control the arthritis and as little medication as necessary to prevent side-effects. Your doctor will adjust your dose or change your medications based on the latest results from your symptoms, findings on physical examination, and your laboratory tests.

Biologics Key Points

- 1 STOP if you develop a fever, think you have an infection, or have been prescribed antibiotics**
- 2 Tell your doctor about any upcoming surgeries**

key
points

WHAT ABOUT SIDE EFFECTS?

Unfortunately, everything in life carries some risk which must be balanced against the potential benefits. In general, the risk of joint damage and permanent disability is much greater than the risk of side effects to medications (biologics) used to control the disease. When properly monitored, the vast majority of side-effects are rare and most are reversible by adjusting the dose or switching medications.

ETANERCEPT

Brand Name: Enbrel

Supplied: 50 mg pre-filled syringes & 25 mg vials

What types of arthritis is etanercept used for?

Etanercept is a biologic used to treat inflammatory types of arthritis like rheumatoid arthritis, psoriatic arthritis and ankylosing spondylitis.

What is the typical dose and when do I take it?

Etanercept is given by an injection under the skin once or twice a week. The dose given is 50 mg per week or 25 mg twice a week. In some circumstances etanercept may be given as 50 mg twice a week.

How long will it take to work?

Most people begin to feel the effects of etanercept after about two weeks, however, it may take months to feel the maximum effect. Some people respond a little slower taking 3 to 6 months until a significant benefit is seen.

When should I not take my etanercept and call my doctor?

SYMPTOM	ACTION
Fever	Stop etanercept and see your doctor.
Think you have an infection	Stop etanercept and see your doctor.
Prescribed an antibiotic	Stop etanercept and see your doctor.
Become pregnant	Stop etanercept and see your doctor.
Scheduled for surgery	Notify your doctor of the surgery date.

Is there anybody who should not take etanercept?

Any woman who is pregnant or may become pregnant should not take etanercept as it has not been studied in pregnant women. Any woman who is breastfeeding should also avoid etanercept. Anybody with congestive heart failure, multiple sclerosis, or a past history of cancer should discuss the use of etanercept with their doctor. Anyone with a past history of tuberculosis or recurrent infections should also discuss with their doctor.

Is there anything I should avoid when I am taking etanercept?

You should discuss all vaccinations with your doctor and notify your doctor of any scheduled surgeries.

What are the side effects of etanercept?

SYMPTOM	FREQUENCY	CALL DOCTOR
Mild skin reaction at injection site	common	If severe
Nausea, abdominal pain	common	If severe
Headaches	common	If severe
Infection (fever/chills etc)	rare	Yes - always
Congestive heart failure: New shortness of breath upon exertion or while lying flat (i.e. in bed) that is improved by propping yourself up on pillows, sitting up, or sleeping in a chair, and increased swelling in the legs	rare	Monitored by MD
Multiple sclerosis: Persistent, unexplained vision problems (double or blurred), balance problems, or tingling in the arms or legs	rare	Monitored by MD
Malignancy: Etanercept may be associated with a small increased risk of developing certain types of cancer	rare	Monitored by MD
Blood counts: Etanercept can very rarely cause a drop in blood counts	rare	Monitored by MD

Do I need any monitoring while taking etanercept?

Blood tests are not routinely required while you are taking etanercept. However, your doctor will likely order periodic blood tests to check your blood counts and follow the activity of your arthritis.



ADALIMUMAB

Brand Name: Humira
Supplied: 40 mg pre-filled syringes

What types of arthritis is adalimumab used for?

Adalimumab is a biologic used to treat inflammatory types of arthritis like rheumatoid arthritis, psoriatic arthritis and ankylosing spondylitis.

What is the typical dose and when do I take it?

Adalimumab is given by an injection under the skin every other week. The dose given with each injection is 40 mg. In some circumstances adalimumab may be given once weekly.

How long will it take to work?

Most people begin to feel the effects of adalimumab after about two weeks, however, it may take months to feel the maximum effect. Some people respond a little slower taking 3 to 6 months until a significant benefit is seen.

When should I not take my adalimumab and call my doctor?

SYMPTOM	ACTION
Fever	Stop adalimumab and see your doctor.
Think you have an infection	Stop adalimumab and see your doctor.
Prescribed an antibiotic	Stop adalimumab and see your doctor.
Become pregnant	Stop adalimumab and see your doctor.
Scheduled for surgery	Notify your doctor of the surgery date.

Is there anybody who should not take adalimumab?

Any woman who is pregnant or may become pregnant should not take adalimumab as it has not been studied in pregnant women. Any woman who is breastfeeding should also avoid adalimumab. Anybody with congestive heart failure, multiple sclerosis, or a past history of cancer should discuss the use of adalimumab with their doctor. Anyone with a past history of tuberculosis or recurrent infections should also discuss with their doctor.

Is there anything I should avoid when I am taking adalimumab?

You should discuss all vaccinations with your doctor and notify your doctor of any scheduled surgeries.

What are the side effects of adalimumab?

SYMPTOM	FREQUENCY	CALL DOCTOR
Mild skin reaction at injection site	common	If severe
Nausea, abdominal pain	common	If severe
Headaches	common	If severe
Infection (fever/chills etc)	rare	Yes - always
Congestive heart failure: New shortness of breath upon exertion or while lying flat (i.e. in bed) that is improved by propping yourself up on pillows, sitting up, or sleeping in a chair, and increased swelling in the legs	rare	Monitored by MD
Multiple sclerosis: Persistent, unexplained vision problems (double or blurred), balance problems, or tingling in the arms or legs	rare	Monitored by MD
Malignancy: Adalimumab may be associated with a small increased risk of developing certain types of cancer	rare	Monitored by MD
Blood counts: Adalimumab can very rarely cause a drop in blood counts	rare	Monitored by MD

Do I need any monitoring while taking adalimumab?

Blood tests are not routinely required while you are taking adalimumab. However, your doctor will likely order periodic blood tests to check your blood counts and follow the activity of your arthritis.

ANAKINRA

Brand Name: Kineret

Supplied: 100 mg pre-filled syringes

What types of arthritis is anakinra used for?

Anakinra is a biologic used to treat inflammatory types of arthritis like rheumatoid arthritis.

What is the typical dose and when do I take it?

Anakinra is given by an injection under the skin every day. The dose given with each injection is 100 mg.

How long will it take to work?

Most people begin to feel the effects of anakinra after about two to four weeks, however, it may take months to feel the maximum effect. Some people respond a little slower taking 3 to 6 months until a significant benefit is seen.

When should I not take my anakinra and call my doctor?

SYMPTOM	ACTION
Fever	See your doctor.
Think you have an infection	See your doctor.
Prescribed an antibiotic	See your doctor.
Become pregnant	See your doctor.
Scheduled for surgery	Notify your doctor of the surgery date.

Is there anybody who should not take anakinra?

Any woman who is pregnant or may become pregnant should not take anakinra as it has not been studied in pregnant women. Any woman who is breastfeeding should also avoid anakinra. Anyone with a past history of recurrent infections should also discuss with their doctor.

Is there anything I should avoid when I am taking anakinra?

You should discuss all vaccinations with your doctor and notify your doctor of any scheduled surgeries.

What are the side effects of anakinra?

SYMPTOM	FREQUENCY	CALL DOCTOR
Mild skin reaction at injection site	common	If severe
Nausea,abdominal pain	common	If severe
Headaches	common	If severe
Infection (fever/chills etc)	rare	Yes - always
Blood counts: Anakinra can very rarely cause a drop in white blood cell counts	rare	Monitored by MD

Do I need any monitoring while taking anakinra?

Blood tests are not routinely required while you are taking anakinra. However,your doctor will likely order periodic blood tests to check your blood counts and follow the activity of your arthritis.

ABATACEPT

Brand Name: Orencia

Supplied: Given by intravenous infusion once a month

What types of arthritis is abatacept used for?

Abatacept is a biologic used to treat inflammatory types of arthritis like rheumatoid arthritis.

What is the typical dose and when do I take it?

Abatacept is given by an intravenous infusion every month. The dose given is dependant on your body weight but typical doses range from 500 to 1000 mg.

How long will it take to work?

Most people may begin to feel the effects of abatacept in a few weeks, however, it may take months to feel the maximum effect.

When should I not take my abatacept and call my doctor?

SYMPTOM	ACTION
Fever	See your doctor.
Think you have an infection	See your doctor.
Prescribed an antibiotic	See your doctor.
Become pregnant	See your doctor.
Scheduled for surgery	Notify your doctor of the surgery date.

Is there anybody who should not take abatacept?

Any woman who is pregnant or may become pregnant should not take abatacept as it has not been studied in pregnant women. Any woman who is breastfeeding should also avoid abatacept. Anybody with a past history of cancer should discuss the use of abatacept with their doctor. Anyone with a past history of tuberculosis, COPD (emphysema), and recurrent infections should also discuss the use of abatacept with their doctor.

What are the side effects of abatacept?

SYMPTOM	FREQUENCY	CALL DOCTOR
Infusion reaction	rare	Monitored during the infusion
Nausea & diarrhea	common	If severe
Headaches & dizziness	common	If severe
Back pain or aching in the joints	common	If severe
Rash or flushing	common	If severe
Infection (fever/chills, urinary tract infection, etc)	rare	Yes - always
Emphysema (COPD): May increase the risk of exacerbations and pneumonia in patients with emphysema/chronic bronchitis	rare	Monitored by MD
Malignancy: Abatacept may be associated with a small increased risk of developing certain types of cancer	rare	Monitored by MD

Is there anything I should avoid when I am taking abatacept?

You should discuss all vaccinations with your doctor and notify your doctor of any scheduled surgeries.

Do I need any monitoring while taking abatacept?

Blood tests are not routinely required while you are taking abatacept. However, your doctor will likely order periodic blood tests to check your blood counts and follow the activity of your arthritis.

INFLIXIMAB

Brand Name: Remicade

Supplied: Given by intravenous infusion

What types of arthritis is infliximab used for?

Infliximab is a biologic used to treat inflammatory types of arthritis like rheumatoid arthritis, psoriatic arthritis and ankylosing spondylitis.

What is the typical dose and when do I take it?

Infliximab is given by an intravenous infusion every 6 to 8 weeks. The dose given is dependant on your body weight but typical doses range from 300 to 600 mg.

How long will it take to work?

Most people may begin to feel the effects of infliximab after the initial infusion, however, it may take months to feel the maximum effect. Some people respond a little slower taking 3 to 6 months until a significant benefit is seen.

When should I not take my infliximab and call my doctor?

SYMPTOM	ACTION
Fever	See your doctor.
Think you have an infection	See your doctor.
Prescribed an antibiotic	See your doctor.
Become pregnant	See your doctor.
Scheduled for surgery	Notify your doctor of the surgery date.

Is there anybody who should not take infliximab?

Any woman who is pregnant or may become pregnant should not take infliximab as it has not been studied in pregnant women. Any woman who is breastfeeding should also avoid infliximab. Anybody with congestive heart failure, multiple sclerosis, or a past history of cancer should discuss the use of infliximab with their doctor. Anyone with a past history of tuberculosis or recurrent infections should also discuss the use of infliximab with their doctor.

Is there anything I should avoid when I am taking infliximab?

You should discuss all vaccinations with your doctor and notify your doctor of any scheduled surgeries.

What are the side effects of infliximab?

SYMPTOM	FREQUENCY	CALL DOCTOR
Infusion reaction	rare	Monitored during the infusion
Abdominal pain, nausea, vomiting, diarrhea	common	If severe
Headaches	common	If severe
Back pain or aching in the joints	common	If severe
Rash or flushing	common	If severe
Congestive heart failure: New shortness of breath upon exertion or while lying flat (i.e.in bed) that is improved by propping yourself up on pillows, sitting up, or sleeping in a chair, and increased swelling in the legs	rare	Monitored by MD
	rare	Monitored by MD
Multiple sclerosis: Persistent, unexplained vision problems (double or blurred), balance problems, or tingling in the arms or legs	rare	Monitored by MD
	rare	Monitored by MD
Malignancy: Infliximab may be associated with a small increased risk of developing certain types of cancer	rare	Monitored by MD
	rare	Monitored by MD
Blood counts: Infliximab can very rarely cause a drop in blood count		

Do I need any monitoring while taking infliximab?

Blood tests are not routinely required while you are taking Infliximab. However, your doctor will likely order periodic blood tests to check your blood counts and follow the activity of your arthritis.

RITUXIMAB

Brand Name: Rituxan

Supplied: Given by intravenous infusion

What types of arthritis is rituximab used for?

Rituximab is a biologic used to treat inflammatory types of arthritis like rheumatoid arthritis.

What is the typical dose and when do I take it?

Rituximab requires only two intravenous infusions spaced two weeks apart. The dose given is 1000 mg with each infusion. An intravenous steroid, methylprednisolone (solumedrol), is usually given 30 minutes before the infusion to reduce side effects.

How long will it take to work?

Most people may begin to feel the effects of rituximab after about 4 weeks, however, it may take 4-5 months to feel the maximum effect.

After receiving my two infusions of rituximab, when should I call the doctor?

SYMPTOM	ACTION
Fever	See your doctor.
Think you have an infection	See your doctor.
Prescribed an antibiotic	See your doctor.
Become pregnant	See your doctor.
Scheduled for surgery	Notify your doctor of the surgery date.

Is there anybody who should not take rituximab?

Any woman who is pregnant or may become pregnant should not take rituximab as it has not been studied in pregnant women. Any woman who is breastfeeding should also avoid rituximab. Anyone with a history of recurrent infections should also discuss the use of rituximab with their doctor.

Is there anything I should avoid when I am taking rituximab?

You should discuss all vaccinations with your doctor and notify your doctor of any scheduled surgeries.

What are the side effects of rituximab?

SYMPTOM	FREQUENCY	CALL DOCTOR
Infusion reaction	common	Monitored during the infusion
Abdominal pain, nausea, vomiting, diarrhea	common	If severe
Headaches & dizziness	common	If severe
Aching in the joints and muscles	common	If severe
Rash or flushing	common	If severe
Infection (fever/chills, urinary tract infection, etc)	rare	Yes - always
Blood counts: Rituximab can very rarely cause a drop in the blood counts	rare	Monitored by MD
Kidney, bowel, heart, and lung problems : Very rare with rituximab	rare	Monitored by MD

Do I need any monitoring while taking rituximab?

Blood tests are not routinely required while you are taking rituximab. However, your doctor will likely order periodic blood tests to check your blood counts and follow the activity of your arthritis.

For more information about other ways to manage your arthritis,
contact The Arthritis Society at:



1.800.321.1433



www.arthritis.ca

The publication is 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.



Canadian Rheumatology Association
Société Canadienne de Rhumatologie



*The Arthritis Society provides education, support
and solutions to people living with arthritis, giving hope
for a better life — today and tomorrow.*