

### Highlights of this Guide

 acetaminophen = Tylenol®	Generic names of medications are shown in lower case and the first letter of brand names is capitalized.
	Dosages are not provided as they vary based on disease severity and individual need.
	Only the most common and the most serious possible side effects are highlighted.
	General information on private and public drug plan coverage is provided.

The medications listed below are the most commonly prescribed by Canadian rheumatologists and arthritis specialists to treat rheumatoid arthritis (RA), axial spondyloarthritis (which includes ankylosing spondylitis (AS) and non-radiographic axial spondyloarthritis), juvenile idiopathic arthritis (JIA), psoriatic arthritis (PsA), osteoporosis, systemic lupus erythematosus (SLE), and vasculitis.

The information in this JointHealth™ Arthritis Medications Guide is not intended to suggest a course of treatment. It is for information only. Always speak to your doctor before starting or stopping a medication.

Medication	Symptoms and diseases commonly used to treat	Most common and most serious side effects	Public drug plan coverage	Private drug plan coverage
<b>acetaminophen</b>				
<b>Examples</b> – pill <b>Tylenol®</b> , <b>Panadol®</b> , <b>Aspirin Free Anacin®</b> Should see benefit within 30 minutes	Pain caused by RA, AS, PsA, SLE, osteoarthritis (OA) Does not treat the underlying disease process.	Most common include: Few common side effects. Rare side effects are rash, low blood counts, stomach upset. Most serious include: Sudden liver failure (large overdose) or chronic liver failure if used at higher than recommended doses, with alcohol, or with other liver-toxic drugs.	No	No
<b>non-steroidal anti-inflammatory drugs (NSAIDs)</b>				
<b>Examples</b> – pill <b>diclofenac (Voltaren®)</b> <b>ibuprofen (Motrin®)</b> <b>indomethacin (Indocid®)</b> <b>meloxicam (Mobic®)</b> <b>naproxen (Naprosyn®)</b> Full benefit within 2 weeks	Inflammation and pain caused by RA, AS, PsA, OA. Does not treat the underlying disease process.	Most common include: Stomach upset and dyspepsia. Most serious include: Peptic ulcer disease (1-4% / year), kidney toxicity, increased risk of cardiovascular disease, modest worsening of underlying high blood pressure, liver toxicity, asthma, low blood counts, increased risk of bleeding, skin rash. Peptic ulcer risk is reduced if a proton pump inhibitor (PPI) is co-administered. Note: Most NSAID side effects are “dose-dependent” so you should try to use the lowest effective dose “as needed”, rather than regularly. All NSAIDs currently available carry an increased risk of heart attack and stroke.	Most plans offer coverage	Contact your benefits provider for information on coverage
<b>COX-2 NSAIDs</b>				
<b>celecoxib (Celebrex®)</b> – pill Full benefit seen within 2 weeks	Inflammation and pain caused by RA, AS, PsA, OA. Does not treat the underlying disease process.	Most common include: Same as NSAIDs, except there may be less dyspepsia and stomach upset (often better tolerated). Most serious include: Same as NSAIDs except – 1. There is a reduced risk (about half the risk) of peptic ulcer disease and, – 2. There is a possible increased cardiovascular risk at the higher dose (200 mg twice daily). The patient who would benefit from Celebrex® over the other NSAIDs would be the patient with a higher risk of peptic ulcer disease (such as a previous ulcer) who also has a low cardiovascular risk. Periodic blood tests to check the liver and blood counts are recommended for patients who are on chronic doses of these medications.	A number of plans offer coverage, some only offer restricted coverage	Contact your benefits provider for information on coverage

Medication	Symptoms and diseases commonly used to treat	Most common and most serious side effects	Public drug plan coverage	Private drug plan coverage
<b>steroids</b>				
<p><b>glucocorticoids</b> – can be given by mouth, by intravenous infusion (for life or organ-threatening disease), by intramuscular injection, by injection directly into a joint or tendon sheath (when there is local inflammation)</p> <p><b>cortisone</b>  <b>dexamethasone</b>  <b>hydrocortisone</b>  <b>medroxyprogesterone</b>  <b>methylprednisolone</b>  <b>prednisone</b>  <b>prednisolone</b></p> <p>Benefits should be seen within 24 hours</p>	<p>Inflammation caused by RA, AS, PsA, SLE, vasculitis. Sometimes given by injection to any joint (including OA).</p> <p>A good bridge therapy before DMARDs take full effect.</p> <p>It is unlikely that glucocorticoids will slow down the joint damage caused by these diseases, but glucocorticoids are often used to treat life-threatening or organ-threatening complications of these diseases.</p> <p>For example:  RA lung inflammation  RA eye disease  RA vasculitis.</p>	<p>Side effects are usually dose and time dependent. They rarely occur with single injections or short course, but are very frequent and sometimes irreversible with higher doses or long courses.</p> <p>Short term side effects include: Sleep disturbance, mood swings or even psychosis, blurred vision.</p> <p>The side effects listed below are generally seen with long-term use (at least a couple of months).</p> <p>Most common include: Stomach upset, thin skin, easy bruising, central weight gain, facial fullness (moon face) buffalo hump, increased hair growth, acne, thin extremities with muscle wasting and weakness, glaucoma, cataracts, increased cardiovascular risks, high cholesterol, high blood pressure, mood swings, depression, osteoporosis and increased risk of fracture, increased risk of infection, worsening of diabetes in known diabetics, or induction of diabetes in people already prone to developing it.</p> <p>The risk of osteoporosis (thin bones that break easily) may be reduced by taking appropriate amounts of calcium, vitamin D and certain medications that build bone.</p> <p>Rare but serious: Psychosis, severe depression, stroke, heart attack, pancreatitis, peptic ulcer disease. A very rare side effect is osteonecrosis. This is due to the interruption of blood to the end of a long bone (hip, knee or shoulder typically). This may cause complete destruction of the joint and is irreversible, usually.</p> <p>Adrenal crisis: Long-term use of glucocorticoids usually suppresses adrenal gland function (makes cortisol that our bodies need). Therefore suddenly stopping or rapidly reducing glucocorticoids can cause “cortisol deficiency”. Symptoms include loss of appetite, nausea, vomiting, abdominal pain, weakness, fatigue confusion or coma. There may be problems with the blood electrolytes (sodium and potassium). Adrenal crisis can even occur in a person who is still on glucocorticoids. It can be precipitated by surgery, trauma or an infection.</p> <p>For this reason, people on long-term glucocorticoids should have a bracelet or necklace indicating that they are on “prednisone” for example. This way, emergency personnel will know what to look for and to provide appropriate glucocorticoid doses.</p>	All plans offer coverage	Contact your benefits provider for information on coverage
<b>disease-modifying anti-rheumatic drugs (DMARDs)</b>				
<p><b>azathioprine (Imuran®)</b> – pill</p>	<p>Inflammation and pain caused by RA, SLE and vasculitis.</p> <p>Effective at treating the underlying disease process in RA, SLE, vasculitis.</p>	<p>Most common include: Stomach upset.</p> <p>Most serious include: Increased risk of infection, low blood counts (bone marrow suppression), mouth ulcers, liver and pancreas toxicity.</p> <p>Blood tests must be done regularly to check blood counts and liver tests.</p> <p>Drug interactions can sometimes occur with allopurinol.</p>	All plans offer coverage	Contact your benefits provider for information on coverage
<p><b>hydroxychloroquine sulfate (Plaquenil®)</b> – pill</p> <p>Should see an improvement in 3 to 6 months, and improvement can continue up to a year</p>	<p>Inflammation and pain caused by RA, PsA, SLE.</p>	<p>Most common include: Stomach upset, cramps and diarrhea. Long-term use can cause skin pigmentation changes. Itchy skin rash (usually within a couple of weeks); many types of skin rashes. Rare: Irritability, nightmares, headaches, blurred vision, vision halo.</p> <p>Most serious include: Very rare retinal (eye) toxicity in 1 in 50,000, but is more common in patients on higher doses. The dose is based on lean body weight. Yearly eye exams are recommended. Low blood counts. Rare nerve/muscle dysfunction.</p>	All plans offer coverage	Contact your benefits provider for information on coverage
<p><b>leflunomide (Arava®)</b> – pill</p> <p>Should see an improvement in 1 to 2 months</p>	<p>Inflammation and pain caused by RA.</p> <p>Effective at treating the underlying disease process in RA, PsA.</p>	<p>Most common include: Stomach upset, diarrhea, increased risk of infection, high blood pressure, headache, skin rash.</p> <p>Most serious include: Liver toxicity and necrosis leading to death, severe infection, low blood counts, nerve damage.</p> <p>Leflunomide stays in the body for many months. If there is a serious side effect, or there is a plan to become pregnant, this drug should be “washed out” of the system by using a course of cholestyramine.</p>	All plans offer coverage	Contact your benefits provider for information on coverage

Medication	Symptoms and diseases commonly used to treat	Most common and most serious side effects	Public drug plan coverage	Private drug plan coverage
<b>methotrexate (Rheumatrex®)</b> – pill or 1 injection weekly Benefits should be seen within 1 to 2 months; maximum benefit in 6 months	Inflammation and pain caused by RA, AS, PsA, SLE. Effective at treating the underlying disease process in RA, AS, SLE, PsA – peripheral arthritis only.	Most common include: Mouth ulcers, stomach upset, nausea, diarrhea, headache, fatigue, mood symptoms. Some patients may experience worsening of RA nodules. Most serious include: Liver toxicity, lung toxicity, low blood counts, increased risk of infection, hair loss.	All plans offer coverage	Contact your benefits provider for information on coverage
<b>minocycline (Minocin®)</b> – pill Benefit should be seen in 2 to 3 months (Prescribed off-label)	Inflammation and pain caused by RA. Effective in treating mild early-stage RA, possibly. This DMARD is rarely prescribed.	Most common include: Dizziness, sedation, headache, stomach upset, diarrhea, skin pigmentation (can be permanent), photosensitivity. Most serious include: Low blood counts, drug-induced systemic lupus, liver toxicity.	All plans offer coverage	Contact your benefits provider for information on coverage
<b>sulfasalazine (Azulfidine®)</b> – pill Benefits should be seen in 1 to 2 months	Inflammation and pain caused by RA, AS, PsA. Effective at treating the underlying disease process in RA, AS – peripheral arthritis only.	Most common include: Nausea, stomach upset, diarrhea, abdominal pain, skin rash. Most serious include: Liver toxicity, drop in blood counts, temporary drop in sperm counts.	All plans offer coverage	Contact your benefits provider for information on coverage
<b>biologic response modifiers (biologics)</b>				
<b>abatacept (Orencia®)</b> – intravenous, at week 0, 2 and 4, and then once every 4 weeks or one injection per week.	Inflammation, pain, joint damage caused by RA, JIA. Highly effective at treating symptoms and underlying disease process in RA, JIA.	Most common include: Infusion reactions can occur and are usually mild and self limiting. Also, headache, runny nose, muscle or joint pain, sore throat, nausea, dizziness, heartburn. Most serious include: Increased risk of serious infections, possible increased risk of lymphoma.	See Report Card on Provincial Formulary Reimbursement Listings for Biologic Response Modifiers	Contact your benefits provider for information on coverage
<b>adalimumab (Humira®)</b> – one injection every 2 weeks	Inflammation, pain, joint damage caused by RA, AS, PsA, JIA. Highly effective at treating symptoms and underlying disease process in RA, AS, PsA, JIA.	Most common include: Headache, skin rash, injection site reactions, rash, increased risk of minor infections. Most serious include: Low blood counts, increased risk of serious infection, reactivation of tuberculosis (TB), multiple sclerosis-like symptoms, possible increased risk of lymphoma, reactivation of hepatitis B.	See Report Card on Provincial Formulary Reimbursement Listings for Biologic Response Modifiers	Contact your benefits provider for information on coverage
<b>anakinra (Kineret®)</b> – one injection every day	Inflammation and pain caused by RA, adult Still's disease.	Most common include: Injection site reactions, skin rash, headache, nausea, abdominal pain, increased risk of minor infections. Most serious include: Increased risk of serious infection.	See Report Card on Provincial Formulary Reimbursement Listings for Biologic Response Modifiers	Contact your benefits provider for information on coverage
<b>belimumab (Benlysta®)</b> – intravenous infusion, every 2 weeks for the first 3 doses, then once every 4 weeks	Effective at treating symptoms and underlying disease process in systemic lupus erythematosus (SLE). Currently approved to treat skin and joint manifestations. Not indicated for renal or central nervous system (CNS) lupus.	Most common include: Nausea, diarrhea, fever, stuffy or runny nose, cough (bronchitis), trouble sleeping, leg or arm pain, depression, headache (migraine), sore throat, urinary tract infection, decreased white blood cell count (leukopenia), vomiting, stomach pain. Most serious include: Cancer; allergic and infusion reactions; serious reactions may occur on the day or day after receiving dose, and may cause death; infections; heart problems; mental health problems, including suicide.	See Report Card on Provincial Formulary Reimbursement Listings for Biologic Response Modifiers	Contact your benefits provider for information on coverage
<b>certolizumab pegol (Cimzia®)</b> – one injection every 2 weeks	Inflammation, pain, joint damage caused by RA, AS, PSA. Highly effective at treating symptoms and underlying disease process in RA, AS, PSA.	Most common include: Upper respiratory tract infections, rash, urinary tract infections, lower respiratory tract and lung infections. Most serious include: Infections including reactivation of tuberculosis (TB), malignancies including possible increased risk of lymphoma, reactivation of hepatitis B.	See Report Card on Provincial Formulary Reimbursement Listings for Biologic Response Modifiers	Contact your benefits provider for information on coverage
<b>denosumab (Prolia®)</b> – injection, 2 per year	Osteoporosis in postmenopausal women who have a high risk of bone fractures.	Most common include: Back pain, pain in arms and legs, high cholesterol, muscle pain, and bladder infection. Note: These events are also very common in the placebo group. Most serious, but rare, include: Infections in skin, lower stomach area (abdomen), bladder, or ear; inflammation of inner lining of heart (endocarditis) due to infection; osteonecrosis of the jaw (very rare); lowered calcium levels in blood (hypocalcemia).	See Report Card on Provincial Formulary Reimbursement Listings for Biologic Response Modifiers	Contact your benefits provider for information on coverage

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<b>etanercept (Enbrel®)</b> – one or two injections every week	Inflammation, pain, joint damage caused by RA, AS, JIA, PsA. Highly effective at treating symptoms and underlying disease process in RA, AS, JIA, PsA.	Most common include: Headache, skin rash, injection site reactions, rash, increased risk of minor infections, dizziness. Most serious include: Low blood counts, increased risk of serious infection, reactivation of TB, multiple sclerosis-like symptoms, possible increased risk of lymphoma, reactivation of hepatitis B.	See Report Card on Provincial Formulary Reimbursement Listings for Biologic Response Modifiers	Contact your benefits provider for information on coverage
<b>golimumab (Simponi®)</b> – one injection every 4 weeks or for RA, intravenous infusion at weeks 0 and 4, then every 8 weeks	Inflammation, pain, joint damage caused by RA, AS, PsA. Highly effective at treating symptoms and underlying disease process in RA, AS, PsA.	Most common include: Upper respiratory tract infection, nausea, abnormal liver tests, redness at site of injection, high blood pressure, bronchitis, dizziness, sinus infection, flu, runny nose, fever, cold sores, numbness or tingling. Most serious include: Serious infection, increased risk of lymphoma, reactivation of TB, reactivation of hepatitis B, heart failure, nervous system problems, liver problems, blood problems.	See Report Card on Provincial Formulary Reimbursement Listings for Biologic Response Modifiers	Contact your benefits provider for information on coverage
<b>infliximab (Remicade®)</b> – intravenous infusion once every 8 weeks	Inflammation, pain, joint damage caused by RA, AS, PsA. Highly effective at treating symptoms and underlying disease process in RA, AS, PsA.	Most common include: Headache, skin rash, infusion reactions, rash, increased risk of minor infections. Most serious include: Low blood counts, increased risk of serious infection, reactivation of TB, multiple sclerosis-like symptoms, possible increased risk of lymphoma, reactivation of hepatitis B.	See Report Card on Provincial Formulary Reimbursement Listings for Biologic Response Modifiers	Contact your benefits provider for information on coverage
<b>rituximab (Rituxan®)</b> – intravenous. For RA, the first two infusions are separated by 2 weeks, then usually re-infusion will occur every six months. For vasculitis, it is given weekly for 4 weeks. If or when another course is needed is not yet defined.	Inflammation, pain, joint damage caused by RA; used to treat ANCA vasculitis and can reduce or prevent organ damage.	Most common include: Infusion reactions are usually seen at first infusion, include flushing, sweating, chest pains. Infusion reactions are typically managed by slowing the rate of infusion and are much less frequent in subsequent infusions. Most serious include: Sore throat, fever, chills, or other signs of infection, unusual bruising or bleeding, severe pain in the stomach area, vision changes, unusual eye movements, loss of balance or coordination, confusion, disorientation, difficulty walking, risk of serious infection.	See Report Card on Provincial Formulary Reimbursement Listings for Biologic Response Modifiers	Contact your benefits provider for information on coverage
<b>tocilizumab (Actemra®)</b> – intravenous infusion once every 4 weeks	Inflammation, pain, joint damage caused by RA and JIA. Highly effective at treating symptoms and underlying disease process in RA and JIA.	Most common include: Upper respiratory tract infection, nasopharyngitis, headache, hypertension, and increased ALT. Most serious include: Infections, in some cases fatal, gastrointestinal perforations, and hypersensitivity reactions including anaphylaxis.	See Report Card on Provincial Formulary Reimbursement Listings for Biologic Response Modifiers	Contact your benefits provider for information on coverage
<b>ustekinumab (Stelara®)</b> – injection, at weeks 0 and 4, then every 12 weeks	Inflammation, pain, joint damage caused by PsA. Highly effective at treating symptoms and underlying disease process in PsA.	Most common include: Upper respiratory infections, headache, fatigue. Most serious include: Increased risk of infection, including TB; increased risk of certain types of cancer.	See Report Card on Provincial Formulary Reimbursement Listings for Biologic Response Modifiers	Contact your benefits provider for information on coverage
<b>other medications</b>				
<b>pregabalin (Lyrica®)</b> – capsule taken by mouth	Widespread muscle pain caused by fibromyalgia.	Most common include: Dizziness, sleepiness, weight gain, blurred vision, dry mouth, swelling of hands and feet, trouble concentrating. Most serious include: Serious allergic reactions, suicidal thoughts or actions, muscle problems, problems with eyesight, feeling “high”.	Most provinces do not yet list but resubmissions are ongoing	Contact your benefits provider for information on coverage

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The material contained in this or any other ACE publication is provided for general information only. It should not be relied on to suggest a course of treatment for a particular individual or as a substitute for consultation with qualified health professionals who are familiar with your individual medical needs. If you have any healthcare related questions or concerns, you should contact your physician. Never disregard medical advice or delay in seeking it because of something you have read in any ACE publication.