When trying to make a decision about medications used to treat your type of arthritis (such as rheumatoid arthritis, ankylosing spondylitis or osteoarthritis), there are a number of important things to consider. Only when you have all of the information about the medication choices available to you will you feel most comfortable starting the medication and sticking with it.

Important information to get from your physician (and other credible sources of information) before making a medication decision includes:

- The generic and brand names of the medication(s) being recommended
- The full list of medications in the “class” of the recommended medication
- An explanation why a particular medication(s) is being recommended over another
- A list of the benefits and risks of the recommended medication
- How long you will have to take the medication
- A list of the benefits and risks of the other medications in the “class” of recommended medication
- What will happen if you do not take the recommended medication
- A list of non-medication treatment options to try in addition with the recommended medication

Once you have this information, you will be better able to discuss with your physician the full range of choices available to you and make an informed decision. It is important to remember though that in the end, while it is great to have reliable information, advice and support, a good decision for yourself is one that comes free from pressure from others. Making a decision to start a medication is your personal choice, no one else’s.

Once you make an informed decision to start a medication, that decision comes with responsibilities, like:

- Agreeing to take the medication as prescribed
- Getting side effect monitoring tests done as ordered by your physician
- Keeping track of health improvements while on the medication and reporting them to your physician at each follow-up visit
- Reporting any uncommon and worrisome side effects you may experience to your physician right away
- Storing the medication as instructed by your pharmacist, paying careful attention to keeping the medication out of the reach of infants and children under the age of 18.

In terms of “sticking with” a medication, the research shows that the single most important step a person can take is to develop a good relationship with their physician. Contrary to popular belief, a person who asks questions of their physician is viewed more positively by that physician, not as someone who is challenging their medical expertise or authority.

Reaching an agreement with your physician about your diagnosis is another important factor in sticking with a medication. Clearly, if a person does not agree with a physician’s diagnosis, then they will not have the confidence they need to take the medication being recommended.

Also, understanding what the risks are of not treating your arthritis provides you with motivation to “follow doctor’s orders”. For example, in rheumatoid arthritis, the research is clear that the risk of suffering long-term disability as a result of untreated (or under-treated) disease – and even premature death – is substantially greater than the risk of serious side effects from medication therapy. Knowing what the “stakes” are in terms of health outcomes is critical when it comes to medications.

Lastly, clearly understanding what the goals are of the medication therapy will help you to assess whether it is working or not. This knowledge translates into feelings of power and control over your arthritis – the power and control to make informed decisions about starting, tapering off, or stopping medications as you – in close consultation with your physician – see fit.
The medications listed in the chart below are the most commonly prescribed by Canadian rheumatologists to treat rheumatoid arthritis (RA), ankylosing spondylitis (AS), psoriatic arthritis (PsA) and osteoarthritis (OA). Medications are grouped by “class”. The generic names of medications are shown in lower case, brand names are capitalized. Dosages prescribed 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 provided. General information on private and public drug plan coverage is provided. For more detailed information on the medications listed in the chart, visit [www.rheuminfo.com](http://www.rheuminfo.com), a terrific web site run by Dr. Andy Thompson, a leading Canadian rheumatologist in Ontario, and endorsed by the Canadian Rheumatology Association.

<table>
<thead>
<tr>
<th>Drug</th>
<th>Symptoms and diseases commonly used to treat</th>
<th>Most common and most serious side effects</th>
<th>Public drug plan coverage</th>
<th>Private drug plan coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>acetaminophen</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| **Examples** (pill form): | Pain caused by RA, AS, PsA, 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                         |
| Tylenol®, Panadol®, Aspirin Free Anacin®  
Should see benefit within 30 mins. |                                                                                                             |                                                                                                          |                           |                            |
| **non-steroidal anti-inflammatory drugs (NSAIDs)** | 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-dependant’ so you should try to use the lowest effective dose ‘as needed’, rather than regularly. | Most plans offer coverage | Most plans offer coverage |
| **Examples** (pill form):  
diclofenac (Voltaren®)  
ibuprofen (Motrin®)  
indomethacin (Indocid®)  
meloxicam (Mobic®)  
naproxen (Naprosyn®)  
Full benefit within 2 weeks |                                                                                                             |                                                                                                          |                           |                            |
| **COX-2 NSAIDs** | 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 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.  
It is recommended that blood tests to check the liver and blood counts should be done periodically in patients who are on chronic doses of these drugs | A number of plans offer coverage, some only offer restricted coverage | Most plans offer coverage |
| celecoxib (Celebrex®) – pill  
Full benefit seen within 2 weeks |                                                                                                             |                                                                                                          |                           |                            |
<table>
<thead>
<tr>
<th>Drug</th>
<th>Symptoms and diseases commonly used to treat</th>
<th>Most common and most serious side effects</th>
<th>Public drug plan coverage</th>
<th>Private drug plan coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>steroids</strong></td>
<td></td>
<td>Side effects are usually dose and time dependant. They rarely occur with single injections or short course but are very frequent and sometimes irreversible with higher doses or long courses. Short term side effects include: Sleep disturbance, mood swings or even psychosis, blurred vision. The side effects listed below are generally seen with long term use (at least a couple of months). 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. 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. 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. 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. 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.</td>
<td>All plans offer coverage</td>
<td>Most plans offer coverage</td>
</tr>
<tr>
<td><strong>disease-modifying anti-rheumatic drugs (DMARDs)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>azathioprine (Imuran®) – pill</td>
<td>Inflammation and pain caused by RA, PsA Effect at treating the underlying disease process RA</td>
<td>Most common include: Stomach upset Most serious include: Increased risk of infection, low blood counts (bone marrow suppression) mouth ulcers, liver and pancreas toxicity. Blood tests must be done regularly to check blood counts and liver tests. Drug interactions include allopurinol.</td>
<td>All plans offer coverage</td>
<td>Most plans offer coverage</td>
</tr>
<tr>
<td>hydroxychloroquine sulfate (Plaquenil®) – pill</td>
<td>Inflammation and pain caused by RA, PsA Should see an improvement in 3 to 6 months, and improvement can continue up to a year</td>
<td>Most common include: Stomach upset, cramps 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. Most serious include: Very rare retinal (eye) toxicity in 1 in 50,000. 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.</td>
<td>All plans offer coverage</td>
<td>Most plans offer coverage</td>
</tr>
<tr>
<td>leflunomide (Arava®) – pill</td>
<td>Inflammation and pain caused by RA, PsA Should see an improvement in 1 to 2 months Effect at treating the underlying disease process RA, PsA</td>
<td>Most common include: Stomach upset, diarrhea, increased risk of infection, high blood pressure, headache, skin rash. Most serious include: Liver toxicity and necrosis leading to death, severe infection, low blood counts, nerve damage. 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 cholestiramine.</td>
<td>All plans offer coverage</td>
<td>Most plans offer coverage</td>
</tr>
</tbody>
</table>
### Disease-Modifying Anti-Rheumatic Drugs (DMARDs) Continued

<table>
<thead>
<tr>
<th>Drug</th>
<th>Symptoms and Diseases Commonly Used to Treat</th>
<th>Most Common and Most Serious Side Effects</th>
<th>Public Drug Plan Coverage</th>
<th>Private Drug Plan Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methotrexate (Rheumatrex®) – pill or 1 injection weekly</td>
<td>Inflammation and pain caused by RA, AS, PsA</td>
<td>Most common include: Mouth ulcers, stomach upset, nausea, diarrhea, headache, fatigue, mood symptoms. Some patients may experience worsening of RA nodules.</td>
<td>All plans offer coverage</td>
<td>Most plans offer coverage</td>
</tr>
<tr>
<td>Benefits should be seen within 1 to 2 months; maximum benefit in 6 months</td>
<td>Effect at treating the underlying disease process RA, AS, PsA – peripheral arthritis only</td>
<td>Most serious include: Liver toxicity, lung toxicity, low blood counts, increased risk of infection, hair loss</td>
<td>All plans offer coverage</td>
<td>Most plans offer coverage</td>
</tr>
<tr>
<td>Minocycline (Minocin®) – pill</td>
<td>Inflammation and pain caused by RA</td>
<td>Most common include: Dizziness, sedation, headache, stomach upset, diarrhea, skin pigmentation (can be permanent), photosensitivity</td>
<td>All plans offer coverage</td>
<td>Most plans offer coverage</td>
</tr>
<tr>
<td>Benefits should be seen in 2 to 3 months</td>
<td>Effect at treating the underlying disease process RA - possibly</td>
<td>Most serious include: Low blood counts, drug-induced systemic lupus, liver toxicity.</td>
<td>All plans offer coverage</td>
<td>Most plans offer coverage</td>
</tr>
<tr>
<td>Sulfasalazine (Azulfidine®) – pill</td>
<td>Inflammation and pain caused by RA, AS, PsA</td>
<td>Most common include: Nausea, stomach upset, diarrhea, abdominal pain, skin rash.</td>
<td>All plans offer coverage</td>
<td>Most plans offer coverage</td>
</tr>
<tr>
<td>Benefits should be seen in 1 to 2 months</td>
<td>Effect at treating the underlying disease process RA, AS-peripheral arthritis only</td>
<td>Most serious include: Liver toxicity, drop in blood counts. Temporary drop in sperm counts.</td>
<td>All plans offer coverage</td>
<td>Most plans offer coverage</td>
</tr>
</tbody>
</table>

### Biologic Response Modifiers (Like Anti-TNFs)

<table>
<thead>
<tr>
<th>Drug</th>
<th>Symptoms and Diseases Commonly Used to Treat</th>
<th>Most Common and Most Serious Side Effects</th>
<th>Public Drug Plan Coverage</th>
<th>Private Drug Plan Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adalimumab (Humira®) – one injection every 2 weeks</td>
<td>Inflammation, pain, joint damage caused by RA, AS, PsA</td>
<td>Most common include: Headache, skin rash, injections site 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.</td>
<td>A number of plans offer restricted coverage if a person meets certain eligibility criteria</td>
<td>Most plans offer coverage</td>
</tr>
<tr>
<td>Highly effective at treating symptoms and underlying disease process RA, AS, PsA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anakinra (Kineret®) – one injection every day</td>
<td>Inflammation and pain caused by RA, Still’s disease</td>
<td>Most common include: Injections site reaction, skin rash, headache, nausea, abdominal pain, increased risk of minor infections.</td>
<td>Most plans offer restricted coverage if a person meets certain eligibility criteria</td>
<td>Most plans offer coverage</td>
</tr>
<tr>
<td>Effective at treating symptoms and underlying disease process RA</td>
<td>Most serious include: Increased risk of serious infection</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Etanercept (Enbrel®) – one or two injections every week</td>
<td>Inflammation, pain, joint damage caused by RA, AS, PsA</td>
<td>Most common include: Headache, skin rash, injections site reactions, rash, Increased risk of minor infections Dizziness, Low blood counts, increased risk of serious infection, reactivation of Tb, multiple sclerosis-like symptoms, possible increased risk of lymphoma.</td>
<td>Most plans offer restricted coverage if a person meets certain eligibility criteria</td>
<td>Most plans offer coverage</td>
</tr>
<tr>
<td>Highly effective at treating symptoms and underlying disease process RA, AS, PsA</td>
<td>Most serious include: Low blood counts, increased risk of serious infection, reactivation of Tb, multiple sclerosis-like symptoms, possible increased risk of lymphoma.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infliximab (Remicade®) – intravenous infusion once every 8 weeks</td>
<td>Inflammation, pain, joint damage caused by RA, AS, PsA</td>
<td>Most common include: Headache, skin rash, infusion reactions, rash, Increased risk of minor infections Dizziness, Low blood counts, increased risk of serious infection, reactivation of Tb, multiple sclerosis-like symptoms, possible increased risk of lymphoma.</td>
<td>Most plans offer restricted coverage if a person meets certain eligibility criteria</td>
<td>Most plans offer coverage</td>
</tr>
<tr>
<td>Highly effective at treating symptoms and underlying disease process RA, AS, PsA</td>
<td>Most serious include: Low blood counts, increased risk of serious infection, reactivation of Tb, multiple sclerosis-like symptoms, possible increased risk of lymphoma.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Disclaimer
The material contained in this newsletter 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. Should you have any health care related questions or concerns, you should contact your physician. You never disregard medical advice or delay in seeking it because of something you have read in this or any newsletter.
The safety of medications available in Canada

Over the past 10 months, the public media has been full of reports about the effectiveness and safety of arthritis medications and others. However, most of the reports lacked the kind of information that would help to inform the public with arthritis about steps they might take to ensure for their own safety.

For example, most stories today focus on the drama surrounding medications – “miracle” responses or “deadly” consequences – rather than provide a thoughtful, unbiased presentation of the research data in language that the public and health care policy makers can understand. Increasingly, articles in Canada’s national daily newspapers focus almost exclusively on cost to the individual and the health care system, editorial opinions about the profit motives and ethics of pharmaceutical companies, and the different views on health concerns and priorities between patients and their physicians and provincial drug coverage plans. Worst of all, patients are often portrayed in the newsprint media as “weaklings or scapegoats”, coverage that promotes disempowerment rather than empowerment.

So, what do Canadians think about Canada’s drug safety system? Health Canada set about answering that question last year.

A survey conducted by Decima Research and released by Health Canada in March 2004, reported that 84% of consumers believed prescription medications in Canada were safe and 83% of health professionals felt the same way. Importantly, 85% of consumers were confident in the system for protecting the safety of prescription drugs. However, the survey reported relatively low (about 50%) awareness among health professionals about communications on drug safety issues from Health Canada and pharmaceutical companies. The survey also showed 82% of consumers believe health professionals should be required to report all adverse drug reactions brought to their attention. These data suggest that Health Canada should focus on better outreach about drug safety information to health professionals, especially since the public generally highly regards the views and opinions of health professionals.

Another aspect of effective communication around medication safety is readability. Based on the latest Literacy Canada report, 22% of adult Canadians fall into the lowest level of literacy, meaning they would have difficulty identifying the correct amount of medicine to give to a child from information on the package. Another 24-26% are in the second lowest level, able to handle only very simple material, while 33% are at the level considered the minimum desirable literacy threshold. Only 20%, or one in five, read at levels indicating the ability to integrate several sources of information or solve more complex problems.

These statistics on the literacy of Canada’s adult population are alarming, and may be a contributor to our inability to understand complex health issues and their need for treatment, and how to make decisions that best meet our needs.

As a result, one area that Health Canada needs to improve is communication of their medication safety information to the public through their safety advisories. A recent review of the Health Canada advisories that went out around COX-2 anti-inflammatory medications used in the treatment of many types of arthritis showed that the material was written well above the grade 12 level. This is a problem that needs addressing now, given that nearly half of the Canadian adult population would not be able to fully understand the information contained in these advisories.

So the “take home” messages in terms of the safety of medications available in Canada seem straightforward:

- The public media needs to show greater responsibility by reporting issues related to the safety of medications in an unbiased, un-dramatic way
- Based on a recent survey, the public believes that Health Canada does a good job regulating medications and keeping the Canadian public sate
- Health Canada and organizations that serve the health information needs of Canadians must strive do a better job to prepare materials at a readability level accessible to the vast majority, rather than the minority.

Finally, when it comes to the safety of medications in Canada, it is important to find ways to protect the public, but not at the expense of Canadian patients who have real and ongoing needs for medications, old and new alike. In the end, patients have the moral authority to speak on the issues of medication advances and their own safety. To Health Canada’s full credit, patients are finally being asked for their views and concerns first hand at public forums and on committees convened by the federal government.

For more information on consumer product safety or to report an adverse side effect go to: http://www.hc-sc.gc.ca/dhp-mps/medeff/report-declaration/index_e.html or call toll-free phone: 1-866-234-2345 (adverse reporting) or for general inquiries: call toll-free 1-866-225-0709 or write to:
Health Canada, Address Locator 0900C2,
Ottawa, Ontario, Canada, K1A 0K9

Disclaimer
The material contained in this newsletter 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. Should you have any health care related questions or concerns, you should contact your physician. You never disregard medical advice or delay in seeking it because of something you have read in this or any newsletter. ©