NSAIDS - WHAT YOU SHOULD KNOW - J HATCH MD FRCSC

What Are NSAIDS?
Oral Non Steroidal Anti-Inflammatory Drugs are a group of medicines developed to combat the pain of arthritic joints and other inflammatory conditions throughout your body. These include: Aspirin, Aleve, Advil (Motrin) which are available “OTC” (over the counter without a prescription) and also include a vast array of prescription medicines. The newest class of these drugs is called “COX-2 Inhibitors” which were developed to reduce the risk of stomach bleeding. Celecoxib (Celebrex) is the best known of these.

What Is The Best NSAID?
Scientific studies show a similar response rate for most NSAIDS. Almost every drug will help relieve symptoms in about 70 out of 100 people. The practical problem we all face however is that it isn’t the same 70 people who get relief of their symptoms from each NSAID! Each person responds differently and unpredictably to each drug. Since I can’t predict in advance which NSAID will work for you, we must use the rather unscientific “trial & error” method. We try several different types of NSAIDS until we find one that works for you – hopefully without many side effects.

What Are The Complications of NSAIDS?
The most frequent complications include: heartburn/acid reflux, altered bone/fragment healing, ulcers & stomach bleeding, heart attacks (in susceptible individuals) and drug interactions with other medicines (including many herbal remedies). Asthma attacks, high blood pressure, kidney damage & liver damage are less frequently seen in otherwise healthy people. These complications become more frequent as you take higher doses for longer periods of time and especially if you have other medical problems. Please note that the complications often develop “silently” - you don’t know you are developing the complications until they become very serious or it’s too late to repair the damage!

What Can Be Done To Avoid These Complications?
I generally only prescribe short courses of NSAIDS. Since most of these drugs start working within an hour, I recommend short bursts of NSAIDS at moderate to high doses only when needed. If you don’t take NSAIDS on days when your symptoms are mild, it gives your stomach, heart & kidneys a chance to recover. If you have to take these medicines daily for more than a month, you will need to see your PCP for prescription renewals. Your PCP may monitor you for the potential complications by clinical examination & possibly blood and urine tests. Your PCP also knows the details of your medical history such as known risk factors, drug incompatibilities, duplications or drug interactions.

Do NSAIDS Cause Heart Attacks?
Aspirin interferes with the ability of platelets in your blood to stick to each other (form blood clots) which is how they help protect against heart attack & stroke. COX-2 Inhibiting NSAIDS (Celebrex) were specifically designed not to interfere with platelet “stickiness” so they do not protect you against heart attacks and stroke. Recently, COX-2 Enzymes have also been found to line the walls of small blood vessels so COX-2 Inhibiting NSAIDS may also help clots stick to the blood vessel walls more easily. This is why COX-2 Inhibitors may provoke heart attacks especially in people with a personal or family history of heart disease. Since all NSAIDS have some COX-2 Inhibitory properties, I believe that we should assume that all NSAIDS (except Aspirin) can increase your risk of heart attack if taken at high enough doses and for long enough. The increased risk of heart attack due to NSAIDS appears to return to baseline as soon as you stop taking the drug.
Which NSAID Is The Safest?
It is important to realize that all of these drugs can have serious side effects. Complications are seen with all these medications - from simple Aspirin up to the new COX-2 inhibitors.

For brief usage (1 to 2 weeks), “Over The Counter” NSAIDS have a proven track record at low to moderate doses (that’s why they are available without a prescription!) Once we increase to “prescription strength”, the safety of OTC drugs becomes the same as other prescription NSAIDS

For long term daily use, the American Heart Association (Feb. 2007) recommends the following from safest (#1) to least safe (#4) for the treatment of chronic pain in patients with known heart disease or strong risk factors for heart disease:
1. Aspirin, Acetaminophen, Tramadol
2. NSAIDS with minimal COX-2 selectivity (Naproxen/Aleve/Naprosyn may have a slight advantage over other non-selective NSAIDS)
3. Non-selective NSAIDS (essentially all other NSAIDS)
4. COX-2 INHIBITORS (Celebrex)

If your PCP has recommended that you take an Aspirin a day for stroke or heart attack prevention, you should continue taking it even while you are taking other NSAIDS.

What about Glucosamine & Chondroitin sulfate?
Several veterinary studies show Glucosamine reduces pain & swelling in arthritic joints. Its ability to regenerate the bearing surface of joints remains questionable. Its major role is to provide long term sustainable pain relief in patients with mild to moderate arthritis without the risks of long term NSAIDS. About 60% to 70% of my patients find it helpful. Scientific studies on Chondroitin Sulfate (and recently MSM) however are less robust and recent studies have suggested that in humans there may be no more effect than placebo (dummy pills). Chondroitin Sulfate is a very large molecule and there is controversy presently as to whether humans can absorb some types. Evidence-Based Guidelines strongly recommend not using Glucosamine and/or Chondroitin Sulfate due to lack of proven efficacy. No harm from their use has been proven but if you use these products, know that these “nutraceutical” medicines are completely unregulated and, especially if not manufactured in the USA, Canada or Western Europe, may contain very little of the actual active ingredients or may contain considerable impurities.

A Few Suggestions:
1. Try over the counter ASA or NSAIDS first (if you know you can tolerate them and you are completely healthy) since they are cheap and very effective. Start with the dosage listed on the bottle. If you see no response in your symptoms after the first week, increase the dose to the maximum prescription dose: for a maximum of 10 more days
   - Ibuprofen/Advil/Motrin: maximum 2400 mg (12 OTC tablets) per day
   - Aleve/Naproxen Sodium: maximum 1000mg (4 OTC tablets) per day
2. Try to pre-empt pain by taking your NSAID an hour or so in advance of painful activities
3. Consider using heat, ice and Acetaminophen (Tylenol) in place of NSAIDS when possible.
4. Don’t take NSAIDS when your pain is mild - give yourself frequent drug holidays.
5. Do not take any NSAIDS if you take prescription blood thinners unless specifically prescribed by your doctor who monitors you carefully.
6. Do schedule a follow-up appointment with your PCP before your NSAID prescription runs out so that he/she may examine you for potential side effects or complications.
7. Do not take NSAIDS for 4 weeks after fractures to enhance bone healing (exception - children).