



# Osteoarthritis Medications and Their Side Effects

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## Treating Osteoarthritis With Medication: What You Need to Know

The goal of osteoarthritis (OA) treatment is to manage symptoms, prevent joint damage, and to help patients retain and regain function, mobility and independence. In addition to lifestyle changes and surgical intervention, there are many different medicinal options for treating OA symptoms and pain.

Here is some information on the types of medication choices you have, including the side effects. Learning about your options will help you to start conversations with your doctor about how you can better manage OA and minimize its impact on your life.

### **Analgesics**

Analgesic medications block pain by interfering with the brain's pain signals. There are three different types of analgesics for treating osteoarthritis: acetaminophen, topical analgesics, and opioid analgesics.

#### **Acetaminophen**

Acetaminophen is available over-the-counter (OTC) for treating mild to moderate osteoarthritis pain. Acetaminophen has no effect on inflammation but it is a better choice if you have Aspirin or NSAID sensitivity, have a history of gastrointestinal tract disease, and or take anticoagulants (medications for preventing blood clots).

You should stop taking acetaminophen if you experience nausea, vomiting, stomach pain, lightheadedness, sweating, fainting, weakness, unusual bruising and bleeding, and yellowing of skin or eyes and call your doctor.

#### **Topical Analgesics**

Topical analgesics are used for osteoarthritis pain in joints located just below the skin, such as the knees and fingers. They are not effective for joints that are deeper, i.e. the hips.

Capsaicin, a commonly used topic analgesic, is the active material derived from hot chili pepper. It comes in a variety of OTC creams and works to reduce the pain in endings and lessens osteoarthritis pain in about 33 percent of people.

It could take at least two weeks before you see results with capsaicin. Side effects include burning, stinging, and redness.

#### **Opioid Analgesics**

Opioid analgesics are available by prescription only and should be used as your doctor prescribes. Your doctor

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will consider opioid analgesics when other treatments have not worked to control your OA pain or if you are unable to take NSAIDs.

No research has found them effective for long-term use in managing OA pain and restoring function, so they should only be used for short periods.

Opioid pain relievers pose side effects, including the risk for addiction. More common side effects are constipation, dizziness and drowsiness, feeling faint, nausea and vomiting.

### **Nonsteroidal Anti-inflammatory Drugs (NSAIDs)**

NSAIDs are the most effective treatments for OA pain and inflammation. Because they present an increased cardiovascular risk, NSAIDs are often prescribed at the lowest effective dosage.

Common over-the-counter NSAIDs are ibuprofen and naproxen. NSAIDs relieve pain and reduce inflammation, but their long-term side effects are far worse than acetaminophen.

Long-term use of NSAIDs may lead to stomach bleeding and kidney damage, in addition to increasing your risk for heart attack and stroke.

### **COX-2 Inhibitors**

Cyclooxygenase-2 selective inhibitors, more commonly known as COX-2 inhibitors, are a type of NSAID. These directly target COX-2, the enzyme responsible for inflammation.

Celecoxib is the only COX-2 inhibitor available in the United States. Its effectiveness is similar to that of NSAIDs with the reduced risk for gastrointestinal side effects, and it works better than analgesics, this according to researchers out of University of Southern California.

Like NSAIDs, celecoxib poses a cardiovascular risk. Research also shows it increases blood pressure in hypertensive patients.

Less serious side effects include upset stomach, digestive issues, headache, nervousness, and mild skin rash. You should report symptoms of chest pain, shortness of breath, coughing up blood, frequent urination, severe skin rash, and black, bloody or tarry stools to your doctor immediately.

### **Duloxetine**

Duloxetine, a selective serotonin and norepinephrine reuptake inhibitor (SNRI), has recently emerged for treatment of OA pain. SNRIs increase serotonin and norepinephrine, natural substances of the brain, believed to stop pain signal messages.

The U.S. Food and Drug Administration (FDA) approved Duloxetine in 2010 as an effective treatment for chronic musculoskeletal pain for treating OA and chronic low back pain.

Common side effects of duloxetine are nausea, dry mouth, drowsiness, sleep issues, constipation, fatigue, and dizziness. More serious side effects include liver damage, allergic reactions, pneumonia, and depression, but these have affected less than one percent of patients.

*Next page: Joint injections and other medications for osteoarthritis.*

### **Joint Injections**

When pain relief medications aren't helping, your doctor may recommend injectable medications for directly

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treating OA affected joints.

### **Corticosteroids**

Corticosteroid injections, also called cortisone shots, are usually given by your doctor to specific joints, including the knees, ankles, spine, and shoulders. The number you can take yearly is limited because of side effects.

Side effects include infection, allergic reaction, pain and site injection swelling. Serious side effects are bleeding in joints, tendon rupture, bone weakening, trouble breathing and swelling in face, tongue, lips or throat.

### **Hyaluronic Acid**

The FDA first approved hyaluronic acid injections in 1997 to treat OA pain. They involve injecting joints with hyaluronan, an artificial form your body's joint lubrication fluid, which tends to be low in OA sufferers.

A 2006 review out of the University of Queensland in Australia reviewed 76 clinical studies of hyaluronic acid injections for treating knee OA. The review found patients using these injections were showing pain reductions of up to 54 percent.

The researchers of the Queensland study also determined hyaluronic acid injections worked as well as NSAIDs and lasted longer than corticosteroid injections for osteoarthritis.

Hyaluronic acid injections may help you to get through OA flare-ups and are relatively safe. Side effects include minor pain at the injection site and minor joint fluid buildup.

### **Muscle Relaxers**

Your doctor may prescribe muscle relaxers to manage OA pain, especially if it affects the muscles and spine.

Muscle relaxers are generally given for short-term use and when OA pain affects your ability to sleep. Side effects of muscle relaxers include drowsiness and muscle tightening and cramping.

### **Topical Pain Medications**

Topical creams, gels, sprays and patches can offer OA pain relief when applied to the skin. Many of these topical medications are available over-the-counter and some require a prescription.

Some people get pain relief from using topical OTC medications, but research shows only moderate results. Topical pain relievers may be more effective when used with NSAIDs.

Active ingredients of OTC topical pain medicines may include capsaicin, salicylate (a pain relieving chemical found in aspirin), and counterirritants, such as menthol and camphor, which produce hot and cold sensations to supersede your ability to feel pain.

Some studies suggest that topical NSAIDs work as well as oral equivalents. The FDA has approved the topical NSAID diclofenac for treatment of OA pain in the joints close to the skin's surface, including hands and knees.

Your doctor may recommend OTC topical pain medications or prescribe topical NSAIDs because of their low risk of stomach irritation. Side effects of topical pain medicines include infections, allergic reaction, pain, tingling, burning sensations, and flu-like symptoms, including body aches, headache and fever.