

## Treating osteoarthritis (OA) pain

**Choosing the right treatment for your OA pain depends on different factors, such as pain intensity, the location of pain, your age, other health conditions, and the medications you are taking.<sup>1</sup>**

### What's the best action plan for you?<sup>2</sup>

#### Lifestyle changes

If the OA pain you are experiencing is more mild or moderate (not severe), it may be effectively managed through lifestyle changes.



If you are overweight, weight loss can help reduce pressure on the joints



Hot or cold compresses



Exercise, like yoga and stretching exercises



Supportive knee braces

#### Medication






Everyone experiences OA pain differently. Sometimes lifestyle changes alone are not enough, and you may need to take medication to get more complete OA pain relief.

The table on the back is a list of the over-the-counter (OTC) medications approved for treating different types of OA pain. You will find helpful information for each medication, including the different types and forms, how they work, and American College of Rheumatology (ACR) guidelines for use.

**Remember...always read the product label** before taking any medicine and seek the advice of a health care professional. Your health care professional can answer questions, go over the medications you are taking, and provide a recommendation that is right for you.

**You can get effective relief of OA pain and get back to the joy of movement.** Happy walking, gardening, biking, or whatever you love to do!

## OTC medications for treating OA pain

	Oral NSAIDs*	Topical NSAIDs*	Oral Analgesics	Counterirritants	Topical Anesthetics
<b>Medication</b>	Ibuprofen, naproxen, aspirin	Diclofenac	Acetaminophen	Menthol, camphor, methyl salicylate, capsaicin	Lidocaine
<b>Formulations</b>	Tablets, caplets, liquid	Gel	Tablets, caplets, liquid	Gel, cream, spray, patches, roll-on	Cream, roll-on, patch, spray
<b>Administration</b>	Oral	Topical	Oral	Topical	Topical
<b>How They Work</b>	<p>The drug travels to the gastrointestinal tract (stomach, intestines), where it dissolves and absorbs into the bloodstream. The blood carries the drug to the site of pain and reduces the production of pain-signaling chemicals (prostaglandins) to bring relief.<sup>3</sup></p> 	<p>The drug penetrates deep through the skin at the site of pain. It reduces the production of pain-signaling chemicals (prostaglandins) in the body to relieve pain.<sup>4</sup></p> 	<p>The drug travels to the gastrointestinal tract (stomach, intestines), where it dissolves and absorbs into the bloodstream. The blood carries the drug to the central nervous system and reduces the production of pain-signaling chemicals in the central nervous system/brain and raises the pain threshold.<sup>4</sup></p> 	<p>Counterirritants penetrate the skin at the site of pain, creating a heating and/or cooling sensation and essentially distracting from the pain.<sup>5</sup></p> 	<p>The drug penetrates through the skin at the site of pain. It prevents pain by blocking signals at the nerve endings in the skin and produces a temporary loss of pain or a “numbing” sensation.<sup>6</sup></p> 
<b>ACR Guidelines for Use<sup>2</sup></b>	<b>Strongly recommend</b> oral NSAIDs for knee, hand, hip OA pain.	<b>Strongly recommend</b> topical NSAIDs for knee OA pain and conditionally recommend them for hand OA pain.  Consider use before oral NSAIDs due to low systemic exposure (less drug circulating in the bloodstream).	<b>Conditionally recommend</b> acetaminophen for hand, hip, and knee OA pain.  Option for those who cannot take NSAIDs; however, data suggest it may be ineffective when used alone.	Topical capsaicin is the only counterirritant conditionally recommended for knee OA pain.	There is not enough data on the use of topical lidocaine for OA pain to make recommendations.

\*Nonsteroidal anti-inflammatory drugs.

**References:** **1.** Leppert W, Malec-Milewska M, Zajaczkowska R, Wordliczek J. Transdermal and topical drug administration in the treatment of pain. *Molecules*. 2018;23(3):681. **2.** Kolasinski SL, Neogi T, Hochberg MC, et al. 2019 American College of Rheumatology/Arthritis Foundation guideline for the management of osteoarthritis of the hand, hip, and knee. *Arthritis Care Res (Hoboken)*. 2020;72(2):149-162. **3.** Gan TJ. Diclofenac: an update on its mechanism of action and safety profile. *Curr Med Res Opin*. 2010;26(7):1715-1731. **4.** Tanner T, Aspley S, Munn A, Thomas T. The pharmacokinetic profile of a novel fixed-dose combination tablet of ibuprofen and paracetamol. *BMC Clin Pharmacol*. 2010;10:10. **5.** Wang K, LaBeff L, Thomas A, Raouf M. Topical analgesics for chronic pain conditions. *Pract Pain Manag*. 2018;18(5). **6.** Kumar M, Chawla R, Goyal M. Topical anesthesia. *J Anaesthesiol Clin Pharmacol*. 2015;31(4):450-456.