

How to Properly Use



NSAIDS

While NSAIDs do not require a prescription, they do pose a risk of serious side effects if not properly used.

By Abbie Cornett

MANY PATIENTS WITH chronic illness also suffer from chronic pain. And, considering the epidemic of opioid addiction, there are, thankfully, nonnarcotic options available that are effective in helping to relieve pain and reduce inflammation. The two types of over-the-counter pain relievers are nonsteroidal anti-inflammatory drugs (NSAIDs) and acetaminophen (Tylenol).¹

NSAIDs are a class of medication used to treat acute or chronic pain. They can provide relief for mild to moderate pain and are often used to treat joint and muscle pain, and in some cases nerve pain. NSAIDs are nonaddictive and, in lower doses, can be obtained without a prescription. Currently, there are nearly two dozen categories of NSAIDs available that are marketed under 76 product names,² nine of which are the most common (see Common Over-the-Counter NSAIDs).³

While acetaminophen can be an effective pain reliever, it is commonly mistaken for an NSAID. Acetaminophen is classified as a miscellaneous analgesic that doesn't fit into a particular class because it works in different ways to relieve

pain compared to either an opioid or an NSAID.⁴ It is used to treat many of the same conditions as NSAIDs, but it doesn't have an anti-inflammatory component, and it typically has a lower effect on pain.⁵ However, it is the pain reliever of choice for those who cannot tolerate NSAIDs or who must take a blood thinner.

How Do NSAIDs Work?

NSAIDs work much like corticosteroids (steroids) for reducing pain and inflammation without the associated side effects. They are commonly used to treat temporary conditions such as menstrual pain, muscle strains and sprains. However, they can also be used to treat a wide variety of chronic conditions such as osteoarthritis, rheumatoid arthritis, lupus, fibromyalgia, backaches and muscle pain, to name a few. Further, they are effective for treating headaches and fever.

NSAIDs work by blocking the production of prostaglandins that have several effects on the body, including causing pain and inflammation.⁶ Blocking these enzymes alters the sensation

of pain.⁷ Additionally, they work to reduce swelling often associated with certain types of pain. While all NSAIDs reduce pain and inflammation, their effects differ from person to person, which means one type may prove more effective in managing pain than another for an individual.

Generally, NSAIDs are taken orally in either pill or liquid form. If a patient is unable to take the oral form due to upset stomach, nausea or bleeding, topical NSAIDs may be considered. Topical NSAIDs, which come in gels, creams and patches that are applied directly to the skin, can be purchased either over the counter or by prescription. These are convenient because they can be applied directly to the area of inflammation, and they can be very effective for short-term relief. Further, they pose less risk for typical NSAID side effects.⁸

Like any medication, it is important NSAIDs are used as directed. Oral and topical NSAIDs should not be combined without consulting a healthcare professional, and they shouldn't be used in conjunction with bandages or heating pads. Application of a bandage or heat increases blood flow to the area, which can increase the absorption of the NSAID into the body and possibly lead to an overdose.

Proper Use of NSAIDs

Many people assume if they can purchase a medication without a prescription, it is safe. But, this can be a dangerous assumption. The term "over-the-counter" doesn't necessarily mean the medicine is safe for everyone all the time, that it can be taken indefinitely or that it doesn't have side effects.

Chronic illness patients using NSAIDs for pain are probably going to be taking them on a regular basis over a long period of time and, thus, the potential for serious side effects increases. Studies have shown NSAID use in older adults can exacerbate several chronic illnesses, including heart failure and hypertension, and they can interact with a number of other drugs. To avoid these complications in older patients, other pain-relieving options can be considered. For instance, analgesics such as acetaminophen, a short half-life NSAID (ibuprofen) or low-dose opioids have a lower risk of adverse reactions.⁹

NSAIDs are intended for short-term use, and the length of time they should be taken depends upon the reason for their use. No over-the-counter NSAID should be taken continuously for more than three days for fever relief and 10 days for pain relief without consulting a healthcare professional. If NSAIDs must be taken for a longer period of time, patients can experience side effects. As such, patients should be carefully

monitored by their physician so they can develop an appropriate treatment plan and change treatment if problems occur.⁸

The most common side effect of long-term NSAID use is gastrointestinal (GI) problems. In fact, some 10 percent to 15 percent of patients are unable to tolerate NSAIDs because of side effects including but not limited to gas, bloating, heartburn, stomach pain, nausea and diarrhea.⁹ This is because NSAIDs reduce the amount of prostaglandins that help protect the lining of the stomach, which can cause the stomach acid to make small erosions in the stomach wall and duodenum, and cause discomfort.

While GI issues are the most common complaint, NSAIDs can also result in other common side effects, including headaches, dizziness, skin rashes, drowsiness, dry mouth and extreme weakness or fatigue. In addition, approximately 15 percent of those who use NSAIDs long-term develop peptic ulcers (ulcerations of the stomach or duodenum). Unfortunately, many times, patients have no early symptoms so they are unaware of the ulcers, which puts them at risk of developing dangerous ulcer complications such as bleeding or perforation.¹⁰

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Other serious side effects that may occur due to long-term NSAID use include:¹⁰

- Allergic reactions such as hives, wheezing, difficulty breathing and swelling of the throat, tongue or lips
- Muscle cramps, numbness or tingling
- Rapid weight gain
- Black, bloody or tarry stools
- Bloody urine or vomit
- Decreased hearing or ringing in the ears (tinnitus)
- Jaundice (yellowing of the skin and the whites of the eyes)

A black box warning is the U.S. Food and Drug Administration's (FDA) most serious warning for drugs and medical devices. Intended to inform users about serious or life-threatening risks, they are added when FDA has received research that confirms such a risk. In July 2015, FDA strengthened its box warning for NSAIDs after evidence showed people who used them had an increased risk of heart attack and stroke. The new warnings included the following information:¹¹

- The risk of heart attack or stroke can occur as early as the first weeks of using an NSAID. The risk may increase with longer use of the NSAID.

- The risk appears greater at higher doses.

- It was previously thought all NSAIDs may have a similar risk. Newer information makes it less clear the risk for heart attack or stroke is similar for all NSAIDs; however, this newer information is not sufficient for us to determine that the risk of any particular NSAID is definitely higher or lower than that of any other particular NSAID.

- NSAIDs can increase the risk of heart attack or stroke in patients with or without heart disease or risk factors for heart disease. Numerous studies support this finding, with varying estimates of how much the risk is increased, depending on the drugs and the doses studied.

- In general, patients with heart disease or risk factors for it have a greater likelihood of heart attack or stroke following NSAID use than patients without these risk factors because they have a higher risk at baseline.

Common Over-the-Counter NSAIDs³

- Aspirin compounds (Anacin, Ascriptin, Bayer, Bufferin and Excedrin)
- Ibuprofen (Motrin and Advil)
- Naproxen sodium (Aleve)
- Celebrex (celecoxib)

- Patients treated with NSAIDs following a first heart attack were more likely to die in the first year after the heart attack compared to patients who were not treated with NSAIDs after their first heart attack.

- There is an increased risk of heart failure with NSAID use.

Selecting the most effective and best-suited NSAID can be a matter of trial and error because responses to drugs can

differ from person to person. In addition to efficacy, a patient's medical history needs to be considered before taking an NSAID. And, a healthcare provider should be

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consulted if a patient has an upcoming surgical procedure; is diabetic; has kidney or liver disease; a history of ulcers, reflux, bleeding disorders, high blood pressure, stroke or heart attack; drinks more than three alcoholic beverages a day; or is over age 65 or pregnant.

Consult a Healthcare Professional

NSAIDs are a popular form of pain relief for millions of people. While they are easy to obtain, they are intended only for short-term use. Those who have underlying health conditions who need to take them for an extended period should consult their healthcare professional. It is important patients understand all the facts about the NSAIDs they are considering taking, since all carry risk of side effects. ■

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