

# NONSTEROIDAL ANTI-INFLAMMATORY MEDICATIONS (NSAIDs)



## ■ ■ ■ Description

Nonsteroidal anti-inflammatory medications (NSAIDs) are a group of medications often used for relief of pain and inflammation. It is not clear how these drugs work, but it is known that they inhibit some of the systems that produce inflammation in the body. In addition to their effect on pain and inflammation, these drugs also reduce fevers and slow the ability of blood to clot. Most of these drugs are taken by mouth, but a few can be injected or given intravenously. The majority are available only with a prescription, but some can be obtained without one. There are many different chemical classes of these drugs, and some are more expensive than others. In general, they have similar side effects, although the risk of side effects varies from one chemical class to another and from one person to another.

## ■ ■ ■ Why Athletes Use It

Athletes use these medications for relief of swelling and pain after injury and to mask or reduce pain during competition. There is some evidence that they speed recovery after injury.

## ■ ■ ■ Adverse Effects

- Nausea
- Abdominal pain
- Bleeding from the stomach and intestines
- Inflammation of the kidneys (nephritis)
- Inflammation of the liver (hepatitis)
- Headache
- Ringing in the ears (tinnitus)
- Rash with sun exposure (photosensitivity)
- Increase in fluid volume (fluid retention)
- Ulcers of the stomach and small intestine
- Failure of the kidneys
- Failure of the liver
- Poor control of asthma
- Itching (urticaria)

- Increase in nasal polyps
- Depression
- Loss of red blood cells (anemia)
- Loose stools (diarrhea)

## ■ ■ ■ Pharmacology

There are both short-acting and long-acting medications in this group. The pain relief effect often is noted with the first dose but may not be present until the end of the first week. Many physicians believe NSAIDs should be used for 2 to 3 weeks before they are considered ineffective. Anti-inflammatory effects are also variable and often mild. Most of these drugs are removed from the body by the kidneys. Use of NSAIDs under conditions in which dehydration can occur increases the risk of side effects to the kidneys and the liver, especially in older (masters) athletes and in athletes not acclimated to the heat. All these drugs are well absorbed when taken by mouth. The price of these drugs is also variable, ranging from pennies per day to as much as \$3 a pill.

## ■ ■ ■ Preventive Measures

These drugs are best used after play to help recovery or in the early stages of injury treatment, when athletes are trying to control pain and inflammation. Use before play to reduce pain is common but occasionally associated with increased side effects and does not always improve performance. When side effects occur, it is acceptable to try different medications, but controversy exists regarding whether athletes should use different medications in the same group or switch groups. Any athlete who begins to see a decrease in performance should immediately contact a physician to determine the cause. Athletes who notice black stools or a change in bowel habits should also see a physician. Athletes who use NSAIDs steadily for longer than 3 to 6 months should obtain screening blood tests for the liver, kidney, and bone marrow.

Notes:

(Up to 4400 characters only)

Notes and suggestions