Perspective

# Safe and Effective Use of Nonsteroidal Anti-Inflammatory Drugs

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# ABOUT THE STUDY

Nonsteroidal Anti-Inflammatory Drugs (NSAIDs) are a widely used class of medications that are commonly prescribed to alleviate pain, inflammation, and fever. They are available over-the-counter and by prescription, and can be found in a variety of forms, such as tablets, capsules, creams, gels, and patches. The benefits of NSAIDs are numerous and they are used to treat a wide range of conditions.

## Pain relief

NSAIDs are effective in providing pain relief by inhibiting the production of prostaglandins, which are responsible for causing pain and inflammation. Prostaglandins are produced by an enzyme called Cyclooxygenase (COX), and NSAIDs work by inhibiting this enzyme. This leads to a decrease in the production of prostaglandins, which in turn reduces pain and inflammation.

NSAIDs are effective in treating mild to moderate pain, including headache, menstrual cramps, toothache, and back pain. They are also used to treat chronic pain conditions, such as osteoarthritis, rheumatoid arthritis, and fibromyalgia.

#### Reduction of inflammation

NSAIDs are also effective in reducing inflammation by inhibiting the production of prostaglandins. Inflammation is a natural response of the body to injury or infection, but it can also be caused by chronic conditions, such as arthritis. Inflammation can cause pain, swelling, redness, and warmth, and can lead to tissue damage if left untreated.

NSAIDs are commonly used to treat inflammation caused by arthritis, tendonitis, bursitis, and other conditions. They can also be used to treat acute inflammation, such as that caused by a sprained ankle or a muscle strain.

## Reduction of fever

NSAIDs are effective in reducing fever by inhibiting the production of prostaglandins. Fever is a natural response of the

body to infection or inflammation, and is characterized by an increase in body temperature. NSAIDs can reduce fever by lowering the production of prostaglandins, which in turn lowers body temperature.

NSAIDs are commonly used to treat fever caused by infections, such as the flu or a cold. They can also be used to treat fever caused by other conditions, such as autoimmune disorders.

## Improved cardiovascular health

NSAIDs have been shown to improve cardiovascular health by reducing inflammation and the risk of blood clots. Inflammation is a risk factor for cardiovascular disease, and NSAIDs can reduce the inflammation associated with conditions such as atherosclerosis and coronary artery disease.

NSAIDs also reduce the risk of blood clots by inhibiting the production of prostaglandins. Blood clots can lead to heart attack and stroke, and NSAIDs can reduce the risk of these events.

#### Reduced cancer risk

NSAIDs have been shown to reduce the risk of certain types of cancer, including colon, breast, and lung cancer. The mechanisms by which NSAIDs reduce the risk of cancer are not fully understood, but it is believed that they work by inhibiting the production of prostaglandins and reducing inflammation. NSAIDs are not recommended for cancer prevention, but they may be used in certain cases, such as in individuals with a high risk of colon cancer.

### Improved cognitive function

NSAIDs have been shown to improve cognitive function in older adults. Inflammation is believed to play a role in the development of cognitive decline, and NSAIDs can reduce the inflammation associated with conditions such as Alzheimer's disease and dementia. NSAIDs are not recommended for the treatment of cognitive decline, but they may be used in certain cases, such as in individuals with a high risk of developing these conditions.

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