

## Ibuprofen (Advil, Motrin)

Ibuprofen is considered a Nonsteroidal Antiinflammatory Drug (NSAID) that functions by inhibiting cyclooxygenase (COX). COX is responsible for the production of pain and inflammation. Therefore, ibuprofen is effective in reducing inflammation, fever, and pain. Ibuprofen is associated with side effects which include GI bleeding, nephrotoxicity, and rash in children. Ibuprofen should be avoided in children less than 6 months of age and should not be taken with alcohol.



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### Mechanisms

#### NSAID

##### [N-sad](#)

Ibuprofen is considered a Nonsteroidal Antiinflammatory Drug and reduces inflammation, pain and fever. NSAIDs are effective in the management of mild or moderate pain.

#### COX Inhibitor

##### [Cocks with Inhibiting-chains](#)

Ibuprofen functions by inhibiting cyclooxygenase (COX), which is responsible for the production of pain and inflammation. By inhibiting COX, ibuprofen reduces inflammation and pain.

### Indications

#### General Pain

##### [General Pain](#)

Ibuprofen is recommended for the relief of mild to moderate pain due to the inhibition of cyclooxygenase and its antiinflammatory properties.

#### Fever

##### [Fever-beaver](#)

This drug is also effective in reducing a fever.

#### Inflammatory Conditions

##### [Flames](#)

NSAIDs are effective in reducing inflammation and are therefore indicated for numerous inflammatory conditions such as rheumatoid arthritis, cystic fibrosis, and osteoarthritis.

### Side Effects

#### GI Ulcers

##### [GI Ulcer-volcano](#)

Ibuprofen is associated with the risk of developing GI ulcers due to its COX inhibitor properties. This property can inhibit platelet aggregation and increase the risk of bleeding.

#### Nephrotoxicity

##### [Kidney with Toxic-green-glow](#)

Ibuprofen is metabolized in the kidneys and therefore may become nephrotoxic in high doses meaning it can be damaging to the kidneys.

## **Rash**

### [Rash](#)

Ibuprofen is not recommended in children less than 6 months of age because young children may develop a rash related to Stevens Johnsons syndrome.

## **Considerations**

### **Avoid with Alcohol**

#### [Avoid-sign and Alcoholic](#)

Alcohol use should be avoided with ibuprofen because it may increase the risk of GI irritation and bleeding. Ibuprofen decreases platelet aggregation, which is further produced with alcohol use.

### **Risk of Thrombotic Event**

#### [Up-arrow Risk Trombone](#)

Ibuprofen carries a black box notice warning of potential thrombotic events. It's non-selective inhibition of the COX-1, COX-2 isoenzymes predisposes patients to these complications.