

### Key Points

- Use acetaminophen AND NSAIDs TOGETHER around the clock for the first 3-5 days, unless contraindicated and then as needed.
- Consider all sources of acetaminophen and/or NSAIDs before prescribing. This can include combination products and OTC cough/cold products.
- Provide the patient with specific administration instructions based on the formulation/s prescribed or recommended.

### Acetaminophen

Medication	Usual Dose	Max Daily Dose	Common OTC Formulations
Acetaminophen	1000 mg three to four times per day	4000 mg	Tablet: 325 mg or 500 mg Capsule: 325 mg or 500 mg Extended release tablet: 650 mg

- Caution should be observed in patients with liver disease, active alcohol use, and G6PD deficiency
- Acetaminophen overdose may occur with 5-6 grams daily for prolonged use (6-8+ weeks) or acute ingestion of at least 7.5 grams

### NSAIDs

Medication	Usual Dose	Max Daily Dose	Common OTC Formulations
Celecoxib*	100-200 mg two times per day	400 mg	Capsule: 50 mg, 100 mg, 200 mg, 400 mg
Ibuprofen	400-800 mg three to four times per day	3200 mg	Tablet: 200 mg, 400 mg, 600 mg, 800 mg
Naproxen	200-400 mg two to three times per day	1375-1500 mg	Tablet: 220 mg, 250 mg, 275 mg, 375 mg, 500 mg, 550 mg Capsule: 220 mg Extended release tablet: 375 mg, 500 mg, 750 mg
Ketorolac	10 mg four times per day	200 mg	Tablet: 10 mg
Meloxicam	15 mg one time per day	15 mg	Tablet: 7.5 mg, 15 mg Capsule: 5 mg, 10 mg

\*Celecoxib is preferred in patients with GI risk factors such as history of peptic ulcers, gastrointestinal bleeds, or Helicobacter pylori infection

### References

- Acetaminophen - knowyourdose.org. (n.d.). Retrieved December 15, 2022, from <https://www.knowyourdose.org/wp-content/uploads/2021/01/Know-Your-Dose-2020-Acetaminophen-Report.pdf>
- Center for Drug Evaluation and Research. February 7, 2018. Prescription acetaminophen products to be limited to 325 mg per dosage. U.S. Food and Drug Administration. Retrieved December 15, 2022, from <https://www.fda.gov/drugs/drug-safety-and-availability/fda-drug-safety-communication-prescription-acetaminophen-products-be-limited-325-mg-dosage-unit>

# NSAID Safety Considerations and Side Effects

## Cardiovascular



- Short-term use is safe for most patients
- In patients who have CVD or risk factors for CVD, long-term and high dose NSAID use can increase risk for cardiovascular events (e.g. MI, CVA, CV death)
- Avoid use in patients who have undergone CABG surgery

## Gastrointestinal



- Short-term use ( $\leq 7$  days) is safe for most patients. Long-term use risk is low ( $< 2\%$ )
- In patients  $> 60$  years of age, history of peptic ulcers, gastrointestinal bleeds, or Helicobacter pylori infections, consider celecoxib (Celebrex) and/or use of a concomitant proton pump inhibitor (PPI, e.g. OTC omeprazole)

## Renal



- Acute kidney injury from NSAID use can occur in those with risk factors including patients age  $\geq 65$ , pre-existing kidney impairment, or CKD with high cumulative doses (e.g. ibuprofen 700 mg/day)
- Use with caution in patients with CKD

## Bleeding



- Anti-platelet effect is due to COX-1 inhibition, but NSAIDs block COX in a reversible fashion
- Normal platelet function returns within 1-3 days depending on the drug (e.g. 1 day for ibuprofen, 2 days for naproxen, diclofenac)

## Pregnancy



- Avoid use of NSAIDs in pregnancy and consult an obstetric specialist