

# Acetaminophen and NSAIDs Quick Reference Sheet

**Recommend:**



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## KEY POINTS

- Use acetaminophen AND NSAIDs TOGETHER around the clock for the first 3-5 days, unless contraindicated
- Use either medication or the combination as needed for pain for the days to follow

## ACETAMINOPHEN SAFETY AND SIDE EFFECTS

Drug	Usual Dose	Max Daily Dose (mg)	Relative COX Selectivity	
			COX-1	COX-2
Acetaminophen	1000 mg three to four times per day	4000	-	-

- Caution should be observed in patients with liver disease, active alcohol use, and G6PD deficiency
- Consider all sources of acetaminophen including combination products and OTC cough/cold products when recommending acetaminophen
- Acetaminophen overdose may occur with 5-6 grams daily for prolonged use (6-8+ weeks) or acute ingestion of at least 7.5 grams

## NSAID SAFETY AND SIDE EFFECTS

Drug	Usual Dose	Max Daily Dose (mg)	Relative COX Selectivity	
			COX-1	COX-2
Ibuprofen	400-800 mg three to four times per day	3200	++	
Naproxen	200-400 mg two or three times per day	1375-1500	++	
Ketorolac	10 mg four times per day	40	+++	
Diclofenac	35-50 mg two to three times per day	200		++
Meloxicam	15 mg daily	15		+++
Celecoxib	100-200mg two times per day	400		+++

- Caution should be observed in patients with a history of cardiovascular, gastrointestinal, and kidney disease
- Cardiovascular: avoid use in patients with heart failure. Coronary, vascular, and death are risks associated with long term use. Out of hospital cardiac arrest is associated with short term use
- Gastrointestinal: Risk is low (<2%) but present in long term use and those at risk. Risk may be mitigated with the use of concomitant proton pump inhibitor (PPI, e.g. over the counter omeprazole) during treatment course
  - Increased risk of gastrointestinal complications (all NSAIDs), which remains constant over time
    - Caution in those over 60 years of age, history of peptic ulcers, gastrointestinal bleeds, and Helicobacter pylori infections
- Kidney: acute kidney injury is mostly present in those with other risk factors, including older age. Use with caution in those with chronic kidney disease
- 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, and 3 days for piroxicam)

## SURGICAL SPECIFIC HIGHLIGHTS

- **Pre-operative interruption of chronic NSAIDs may be warranted, but should be patient, procedure, and drug specific**
- **There appears to be no increased risk of post-operative bleeding with celecoxib or ibuprofen**
- Post-operative bleeding may occur with ketorolac, although studies provide conflicting data
- **Enhanced Recovery After Surgery (ERAS) protocols commonly include peri-operative use of NSAIDs including just prior to surgery, day 0 and for the several post-operative days without an increased risk of complications**

### References:

<https://www.fda.gov/drugs/drug-safety-and-availability/fda-drug-safety-communication-prescription-acetaminophen-products-be-limited-325-mg-dosage-unit>  
<https://www.knowyourdose.org/wp-content/uploads/2015/05/Acetaminophen-Report.pdf>