

Nonsteroidal Anti-Inflammatory Medications - Common adverse effects of NSAID use

GI	<ul style="list-style-type: none"> • dyspepsia • peptic ulcer disease • bleeding <p>Risk factors for gastroduodenal ulcers include:</p> <ul style="list-style-type: none"> • advanced age • history of ulcers • concomitant use of corticosteroids • higher doses of NSAID use • concomitant use of anticoagulant or anti-platelet agents¹²
Hepatic	<ul style="list-style-type: none"> • elevation of serum aminotransferases
Renal	<ul style="list-style-type: none"> • acute renal failure due to COX-mediated inhibition of prostaglandin causing unopposed constriction of the afferent arteriole leading to decreased renal perfusion
Cardiovascular	<ul style="list-style-type: none"> • non-aspirin containing NSAIDs can increase risk of heart attack or stroke and can modestly exacerbate heart failure.¹² One commonly proposed mechanism for increased cardiovascular risk includes alteration of pro-thrombotic and anti-thrombotic balance on endothelial surfaces, leading to increased thrombosis.¹ All non-aspirin NSAIDs carry this risk, though naproxen is considered to carry the lowest risk of cardiovascular side effects.¹⁴ • There is a wide variance of degree of reported risk increase in the literature depending on the drug and dose that was studied.¹⁵ This risk may begin as early as 1 week of NSAID use.¹⁵ • worsening of underlying hypertension • electrolyte and fluid abnormalities
Pulmonary	<ul style="list-style-type: none"> • bronchospasm may result in susceptible individuals. The mechanism of action is via the arachidonic pathway: NSAID-induced inhibition of COX causes an increase in lipoxygenase resulting in bronchospasm.
Hematologic	<ul style="list-style-type: none"> • NSAIDs have antiplatelet effects and increase the risk of bleeding complications when taken in combination with direct oral anticoagulants (DOACs) or warfarin.
Allergy	<ul style="list-style-type: none"> • urticaria, angioedema, generalized pruritus