

# Taking NSAIDs with anti-clotting medications and risk of bleeding, CV events

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Among patients receiving antithrombotic therapy (to prevent the formation of blood clots) after a heart attack, the use of nonsteroidal anti-inflammatory drugs (NSAIDs) was associated with an increased risk of bleeding and events such as heart attack, stroke or cardiovascular death, even after short-term treatment, according to a study in the February 24 issue of *JAMA*.

Guidelines recommend that all patients with [myocardial infarction](#) (MI; [heart attack](#)) should be prescribed dual [antithrombotic therapy](#) (aspirin and clopidogrel) for up to 12 months and one agent thereafter. Although [bleeding](#) risks associated with antithrombotic agents are increased by NSAIDs, certain NSAID agents (e.g., ibuprofen) may also impede the antithrombotic effects of aspirin and may increase risk of [cardiovascular events](#). These risks are of considerable public health concern, given the widespread use of NSAIDs, according to background information in the article.

Anne-Marie Schjerning Olsen, M.D., Ph.D., of Copenhagen University Hospital Gentofte, Hellerup, Denmark, and colleagues examined the risk of bleeding and cardiovascular events among patients with prior MI taking antithrombotic drugs and for whom NSAID therapy was then prescribed. The researchers used nationwide administrative registries in Denmark (2002-2011) and included patients 30 years or older admitted with first-time MI and alive 30 days after hospital discharge. Subsequent treatment with aspirin, clopidogrel, or other oral anticoagulants and their combinations, as well as ongoing concomitant (accompanying) NSAID

use was determined.

The study included 61,971 patients (average age, 68 years); of these, 34 percent filled at least 1 NSAID prescription. The number of deaths during a median follow-up of 3.5 years was 18,105 (29.2 percent). A total of 5,288 bleeding events (8.5 percent) and 18,568 cardiovascular events (30.0 percent) occurred. Analysis indicated that there was about twice the risk of bleeding with NSAID treatment compared with no NSAID treatment, and the cardiovascular risk was also increased. An increased risk of bleeding and cardiovascular events was evident with accompanying use of NSAIDs, regardless of antithrombotic treatment, types of NSAIDs, or duration of use.

"There was no safe therapeutic window for concomitant NSAID use, because even short-term (0-3 days) treatment was associated with increased risk of bleeding compared with no NSAID use. Confirming previous studies and despite increased bleeding complications, NSAIDs were not associated with decreased [cardiovascular risk](#)," the authors write.

"More research is needed to confirm these findings; however, physicians should exercise appropriate caution when prescribing NSAIDs for patients who have recently experienced MI."

In an accompanying editorial titled , "Potential Hazards of Adding Nonsteroidal Anti-inflammatory Drugs to Antithrombotic Therapy After Myocardial Infarction," Charles L. Campbell, M.D., of the University of Tennessee-Chattanooga, and David J. Moliterno, M.D., of the University of Kentucky, Lexington, comment on the findings of this study.

"The cumulative evidence available is an important reminder that the while NSAIDs can be helpful and at times necessary medications for satisfactory quality of life, use of these medications among patients with

a history of a recent MI is likely to be associated with clinically meaningful bleeding and ischemic risks. Because the present study tracked only prescription NSAID use, it is plausible that an even greater health care effect might occur in many countries, such as the United States, where NSAIDs are widely available as over-the-counter medications and physicians may be unaware whether their patients are taking NSAIDs."

**More information:** Article: [DOI: 10.1001/jama.2015.0809](https://doi.org/10.1001/jama.2015.0809)  
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