

# Common pain relievers may increase heart attack risk during respiratory infections

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Pills. Credit: Public Domain

Widely used pain relievers may increase the risk of a heart attack when used during a cold or flu-like illness, according to a new study published in the *Journal of Infectious Diseases*. The findings suggest physicians and patients should use caution when prescribing or taking the medications, known as nonsteroidal anti-inflammatory drugs, or NSAIDs, to ease symptoms of acute respiratory infections.

In an observational study, researchers analyzed claims from Taiwan's National Health Insurance Program over a seven-year period (2005-2011), including data from nearly 10,000 patients who were hospitalized for a [heart attack](#). The goal was to investigate whether two potential cardiac [risk](#) factors—an acute respiratory infection, such as a cold or influenza, and NSAID use—have a combined, joint effect on heart attack risk.

The researchers compared each patients' own risk for heart attack over time, across episodes of respiratory illness and NSAID use. They found a stronger association with a heart attack when both risk factors were present. Using the [pain relievers](#) during an acute respiratory infection was associated with a 3.4-fold increased risk for a heart attack, with 7.2 times greater risk when patients received the pain-relieving medication intravenously in the hospital, compared to times when patients had neither of the risk factors.

The heart attack risk when patients with an [acute respiratory illness](#) were not taking an NSAID was 2.7 times greater, while the risk was 1.5 times greater when individuals took the drugs and did not have an infection. Previous research has implicated respiratory infections and some

NSAIDs as potential triggers for heart problems, but earlier studies have examined these risk factors only separately.

"Physicians should be aware that the use of NSAIDs during an acute respiratory infection might further increase the risk of a heart attack," said study author Cheng-Chung Fang, MD, of National Taiwan University Hospital. Patients seeking relief from cold and flu symptoms should consult with their doctor or a pharmacist before using NSAIDs, Dr. Fang added. Another commonly used pain reliever, acetaminophen, which eases pain in a different way than NSAIDs do, may be a safer alternative, in terms of cardiac risk, for relief from cold and flu symptoms, although the drug was not evaluated in the study.

While the study's findings suggest an association between NSAID use, [acute respiratory infections](#), and increased [cardiac risk](#), they do not prove a cause-and-effect relationship. Additional research is needed to clarify the apparent combined effect on risk and how the effect might be managed. Future studies could explore which specific NSAIDs may be safer than others for patients with these infections, how illness severity affects the risks, and whether some patients, such as those with a previous heart attack, may be more susceptible, according to the study authors.

In a related editorial commentary, Charlotte Warren-Gash, PhD, MRCP, of the London School of Hygiene & Tropical Medicine, and Jacob A. Udell, MD, MPH, of the University of Toronto, who were not involved in the study, noted that the findings provide evidence for the dual effect of potential heart attack triggers and highlight the need for caution when using NSAIDs while future research explores the issue. "Clinicians should consider both medical conditions and existing medications when prescribing NSAIDs for symptomatic acute respiratory infection relief," they wrote.

## Fast Facts

- Pain relievers commonly used to ease cold and flu symptoms—[nonsteroidal anti-inflammatory drugs](#), or NSAIDs—may increase the risk of a heart attack when taken during an acute respiratory infection.
- New findings suggest that two potential cardiac [risk factors](#)—having an acute [respiratory infection](#), such as a cold or influenza, and using an NSAID—have a combined, greater effect on [heart attack risk](#) when both are present.
- In the observational study, researchers analyzed claims data from nearly 10,000 patients who were hospitalized for a heart attack over a seven-year period in Taiwan.

Provided by Infectious Diseases Society of America

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