

NSAID use linked to reduced hepatocellular carcinoma risk and mortality due to chronic liver disease

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Researchers found that aspirin use is associated with a decreased risk of developing hepatocellular carcinoma and death from chronic liver disease (CLD), according to a study published November 28 in the *Journal of the National Cancer Institute*.

[Hepatocellular carcinoma](#) (HCC), the most common type of primary liver cancer, occurs mainly among patients with CLD. Previous reports have linked [chronic inflammation](#) due to CLD to [cellular processes](#) that could promote carcinogenesis. Because of their anti-inflammatory properties and widespread use to prevent cardiovascular and cerebrovascular disease, nonsteroidal anti-inflammatory drugs (NSAIDs) including aspirin and nonaspirin NSAIDs are being investigated as cancer chemopreventive agents. NSAIDs have been shown to have a beneficial effect in observational studies and clinical trials on risk of some cancers. However, the relationship between NSAID use and risk of HCC and death from CLD is unclear.

To investigate this relationship, Vikrant V. Sahasrabudde, M.B.B.S., Dr.P.H, from the Division of [Cancer Epidemiology](#) and Genetics at the [National Cancer Institute](#), and colleagues, performed an observational study of 300,504 men and women aged 50 to 71 years enrolled in the National Institutes of Health-AARP Diet and Health Study who reported their aspirin and nonaspirin NSAID use and were followed-up for 10-12 years. The researchers linked the self-reported use of aspirin and

nonaspirin NSAIDs to registry data on diagnoses of 250 cases of HCC and 428 deaths due to CLD to perform their study.

The researchers found that the use of NSAIDs was associated with a reduced risk of HCC and a reduced risk of death from CLD compared to non-users. [Study participants](#) who used aspirin had a 41% reduced risk of HCC and a 45% reduced risk of death from CLD, whereas those who used non-aspirin NSAIDs experienced a 26% reduced risk of CLD mortality but no reduced risk of HCC. The authors conclude that "these associations are prominent with the use of aspirin, and if confirmed, might open new vistas for chemoprevention of HCC and CLD."

In an accompanying editorial, Isra G. Levy, M.B., BCh., MSc., and Carolyn P. Pim, M.D., both from the Department of Epidemiology and Community Medicine at the University of Ottawa in Canada discuss how the known causes of [chronic liver disease](#) and primary liver cancer are hepatitis B and C virus infections, alcohol use, and a link between obesity and diabetes has been suggested. "We already have cheap, readily available interventions," such as vaccines for hepatitis B and C virus but "effective strategies for reduction of HBV and HCV are not always available or fully applied." Also, alcohol abuse and obesity are complex and multifactorial challenges that require interventions at the individual and system levels." They conclude that although we should study the potential of new chemopreventive strategies such as NSAID use, we should also continue to focus on improving the established practices and interventions.

Provided by Journal of the National Cancer Institute

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