

# Association found between long-term use of nonaspirin anti-inflammatory drugs and renal cell cancer

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Long-term use of nonaspirin anti-inflammatory drugs (NSAIDs) is associated with an increased risk of renal cell cancer (RCC), according to a report in the September issue of *Archives of Internal Medicine*.

According to background information in the article, in the United States, [kidney cancer](#) is the seventh leading type of cancer among men and the ninth leading type of cancer among women. The most common type of kidney cancer, [renal cell cancer](#), accounts for 85 percent of all cases. Analgesics (pain-relieving medications) are among the most commonly used groups of drugs in the United States, and some appear to have protective effects against cancer. "However," the authors write, "some epidemiologic data, mainly from case-control studies, suggest an association between analgesic use and an increased risk of RCC."

Eunyoung Cho, Sc.D., from Harvard Medical School and Brigham and Women's Hospital, Boston, and colleagues examined the relationship between analgesic use and RCC risk. They used data from the Nurses' Health Study and the Health Professionals Follow-up Study, both prospective cohort studies. Beginning in 1990 in the Nurses' [Health Study](#) and 1986 in the Health Professionals Follow-up Study, and every two years thereafter, use of aspirin, other [NSAIDs](#) and acetaminophen was determined. Follow-up was 16 years and 20 years, respectively. The researchers evaluated the baseline and duration of use of analgesics. They also assessed other [risk factors](#) for RCC, such as body weight,

smoking, recreational physical activity and history of hypertension.

Among the 77,525 women and 49,403 men included in the study, the researchers documented 333 RCC cases. No association was found between aspirin and acetaminophen use and RCC risk. An association was found between regular use of nonaspirin NSAIDs and an increased risk of RCC, with a 51 percent increase in the relative risk. The researchers noticed a dose-response relationship between duration of nonaspirin NSAID use and RCC risk; there was a 19 percent decrease in relative risk for use less than four years, a 36 percent increase in relative risk for use of analgesics for four years to less than 10 years and nearly three times the relative risk for use for 10 or more years.

"In these large prospective studies of women and men, we found that use of nonaspirin NSAIDs was associated with an elevated risk of RCC, especially among those who took them for a long duration," write the authors, who add that aspirin and acetaminophen were not associated with RCC risk. "Risks and benefits should be considered in deciding whether to use analgesics; if our findings are confirmed, an increased risk of RCC should also be considered."

**More information:** *Arch Intern Med.* 2011;171[16]:1487-1493.

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