

Aspirin may lower the risk for aggressive prostate cancer

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Use of aspirin and/or other non-steroidal anti-inflammatory drugs (NSAIDs) was associated with a reduced risk for aggressive prostate cancer in men who had elevated prostate specific antigen (PSA) and a negative biopsy prior to study commencement, according to data presented at the 13th Annual American Association for Cancer Research International Conference on Frontiers in Cancer Prevention Research, held Sept. 28-Oct. 1.

"Our purpose was to examine the effects of anti-inflammatory medication use on [prostate cancer](#) diagnosis in a study where biopsies were performed largely independent of PSA screening, because anti-inflammatory drugs can lower PSA levels and thus could cloud the real effects of these drugs on prostate cancer detection," said Adriana Vidal, PhD, assistant professor of surgery in the Division of Urology at Duke University School of Medicine in Durham, North Carolina.

"Our data support the hypothesis that anti-inflammatory drugs may have a biological role in arresting prostate cancer development, but this requires formal prospective testing in randomized trials," said Vidal. "In the meantime, [men](#) should discuss with their doctors the benefits and risks of taking these medicines to potentially lower [prostate cancer risk](#)."

"Given that [aspirin](#) inhibits enzymes in the inflammation pathway, any decrease in inflammatory infiltration in the prostate epithelium would be enough to lower PSA levels," explained Vidal. "Therefore, it is key to note that nearly all the men in our study had a prostate biopsy regardless

of PSA values. Importantly, we found anti-inflammatory drugs were associated with lowered prostate cancer risk, which is consistent with the hypothesis that these agents reduce prostate cancer risk supporting future clinical trials of anti-inflammatory drugs for [prostate cancer prevention](#).

"Further, we found that NSAIDs only lower PSA by a small amount, and we predict this would have no effect on PSA's ability to predict prostate cancer in these men," added Vidal.

Participants were from the REDUCE study that tested if dutasteride reduces the risk of incident prostate cancer. All men had a PSA between 2.5 ng/mL and 10 ng/mL, and a biopsy with negative results for prostate cancer prior to the start of the study.

Of the 6,390 men, 50 percent never used aspirin and/or other NSAIDs, 21 percent were aspirin users, 18 percent were users of other NSAIDs, and 11 percent used both aspirin and other NSAIDs.

The researchers found that aspirin and/or NSAIDs use lowered the risk for prostate cancer by 14 percent. After adjusting for confounding factors, the researchers found that the use of aspirin and/or other NSAIDs reduced the risk for overall prostate cancer by 13 percent and the risk of high-grade prostate cancer by 17 percent, but no association was found with low-grade prostate cancer alone.

The benefit from aspirin and/or other NSAIDs was found to be similar between participants from Europe and North America. The results were also similar between those who were in the dutasteride arm and those in the placebo arm.

Provided by American Association for Cancer Research

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