

# Clinical Update

## Heavy Multivitamin Use May Raise Prostate Cancer Risk

Odds rose 32% for men taking more than a pill a day, study found

*(Journal of the National Cancer Institute, May 2007)*  
*(Cancer Causes Control, August 2005)*

Popping more than one multivitamin a day could boost a man's risk for prostate cancer by nearly a third, according to a new study from the U.S. National Cancer Institute.

"Taking them more than seven times a week was associated with a 32 percent increased risk of advanced prostate and for fatal prostate cancer [it had] nearly a doubling of risk, compared to men who did not take multivitamins," said researcher Dr. Michael F. Leitzmann, an investigator in the NCI's division of cancer epidemiology and genetics.

On the other hand, "Taking multivitamins seven times a week was not associated with an increased incidence of prostate cancer," he added.

The association with heavy use of multivitamins and increased risk was strongest for men with a prior family history of prostate cancer or those who took individual micronutrient supplements such as selenium, beta-carotene or zinc, said a report by Leitzmann and his colleagues in the Journal of the National Cancer Institute.

"We enrolled nearly 300,000 men who filled out questionnaires about their multivitamin use in the previous 12 months," Leitzmann said. "We followed them for up to six years, checking on the occurrence of total prostate cancer and also more serious forms of prostate cancer."

It's unclear how excessive use of multivitamins could boost prostate risk. According to Leitzmann, the study was epidemiological, "and typically these studies are not able to rule out other factors related to the use of multivitamins."

However, an accompanying editorial notes that many of the supplements have strong antioxidant properties. The new study adds to "growing evidence that questions the beneficial value of antioxidant vitamin pills in generally well-nourished populations," according to the European experts who wrote the editorial. The findings also "underscore the possibility that antioxidant supplements could have unintended consequences for our health," the experts wrote.

The NCI will not be giving men any new advice about the use of multivitamins based on the study, Leitzmann said. "At this point, we have no statement regarding any change in the way men use multivitamins," he said.

The finding does confirm the results of an even larger study reported two years ago by investigators at the American Cancer Society.

They followed almost a half-million men for 18 years and wrote that, "the death rate from prostate cancer was marginally higher among men who took multivitamins regularly (15 or more times a month) compared to nonusers."

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The increased risk in the study was smaller -- about 7 percent overall, 12 percent in the first four years of follow-up. It was not found in men who took additional supplements of vitamins such as A, C and E.

That difference might be due to the way the ACS study counted the use of the supplements, said Victoria Stevens, a society epidemiologist and lead author of the report. In both studies, the increased risk was seen essentially in men who took the most supplements, Steven said.

"Overall, the observations are similar," Stevens said.

As for advice about multivitamins, she said the society has already advised against them -- not just for prostate cancer, but in general.

"We have our standard guidelines that don't really recommend the use of multivitamin supplements," Stevens said. "We feel that the best way for people to get their vitamins is through natural food sources. Pregnant women and others who might need them should use balanced, basic multivitamin supplements that give no more than they get from the daily diet."



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