

No protective effect on cancer from long-term vitamin E or vitamin C supplementation

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The Physicians' Health Study II is a large-scale, long-term, randomized clinical trial that included 14,641 physicians who were at least 50 years old at enrollment. These physicians were given 400 IU of vitamin E every other day or its placebo, or 500 mg of vitamin C daily or its placebo.

Researchers followed these patients for up to 10 years for the development of cancer with high rates of completion of annual questionnaires, and the confirmation of reported cancer endpoints.

Analyses indicate that randomization to vitamin E did not have a significant effect on prostate cancer. This lack of effect for vitamin E also extended to total cancer. Vitamin C had a similar lack of effect on total cancer.

"After nearly 10 years of supplementation with either vitamin E or vitamin C, we found no evidence supporting the use of either supplement in the prevention of cancer," said Howard D. Sesso, Sc.D., M.P.H., an assistant professor of medicine at Brigham and Women's Hospital. "While vitamin E and C supplement use did not produce any protective benefits, they also did not cause any harm," he added.

Previous laboratory research and observational studies in which people who reported eating a diet rich in vitamins E and C were found to have a lower risk of cancer, had suggested that taking these vitamins as individual supplements may offer some protective benefits.

Study co-author and principal investigator J. Michael Gaziano, M.D., M.P.H., associate professor of medicine at Brigham and Women's Hospital and VA Boston, adds, "Individual vitamin supplements such as vitamin E and C do not appear to provide the same potential advantages as vitamins included as part of a healthy, balanced diet."

Finally, Sesso said that these results provide clinically meaningful new information. "Our results represent one of only a few clinical trials that have tested this idea. The final component of the Physicians' Health Study II, testing daily multivitamin supplementation, remains ongoing."

Source: American Association for Cancer Research

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