

Vitamin E may lower liver cancer risk

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High consumption of vitamin E either from diet or vitamin supplements may lower the risk of liver cancer, according to a study published July 17 in the *Journal of the National Cancer Institute*.

Liver cancer is the third most common cause of [cancer mortality](#) in the world, the fifth most common cancer found in men and the seventh most common in women. Approximately 85% of liver cancers occur in developing nations, with 54% in China alone. Some [epidemiological studies](#) have been done to examine the relationship between vitamin E intake and liver cancer; however, the results have been inconsistent.

To determine the relationship between vitamin E intake and liver [cancer risk](#), Wei Zhang, MD, MPH., of the Shanghai Cancer Institute, Renji Hospital, Shanghai Jiaotong University School of Medicine and colleagues analyzed data from a total of 132,837 individuals in China who were enrolled in the Shanghai Women's Health Study (SWHS) from 1997-2000 or the Shanghai Men's Health Study (SMHS) from 2002-2006, two population-based cohort studies jointly conducted by the Shanghai Cancer Institute and Vanderbilt University. Using validated food-frequency questionnaires, the researchers conducted in-person interviews to gather data on [study participants'](#) dietary habits. They compared liver cancer risk among participants who had high intake of vitamin E with those with low intake.

The analysis included 267 liver cancer patients (118 women and 149 men) who were diagnosed between 2 years after study enrollment and an average of 10.9 (SWHS) or 5.5 (SMHS) years of follow-up. Vitamin E intake from diet and vitamin E supplement use were both associated with a lower risk of liver cancer. This association was consistent among participants with and without self-reported [liver disease](#) or a family history of liver cancer.

"We found a clear, inverse dose-response relation between vitamin E intake and liver cancer risk," the authors write, noting a small difference between

men and women in the risk estimate, which is likely attributable to fewer liver cancer cases having occurred among SMHS participants due to the shorter follow-up period. Overall, the take home message is that, "high intake of vitamin E either from diet or supplements was related to lower risk of liver cancer in middle-aged or older people from China."

Provided by Journal of the National Cancer Institute

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