

Optimal dose of vitamin E maximizes benefits, minimizes risk

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Vitamin E has been heralded for its ability to reduce the risk of blood clots, heart attack, and sudden death. Yet in some people, vitamin E causes bleeding. Scientists have known for more than 50 years that excess vitamin E promotes bleeding by interfering with vitamin K, which is essential in blood clotting. However, they haven't been able to pinpoint how the two vitamins interact. Nutrition researcher Maret Traber of Oregon State University reviews studies of possible explanations of the interaction in an article published recently in *Nutrition Reviews*.

One of the most compelling studies of the benefits of vitamin E is the Women's Health Study, in which 40,000 healthy women, 45 and older, took 600 IU vitamin E supplements or a placebo every other day for 10 years. Women taking the supplements had 24 percent fewer deaths from heart disease. Vitamin E's protective effect appeared even stronger in women 65 and older. Those taking the vitamin experienced a 26 percent reduction in cardiovascular events and a 49 percent reduction in cardiovascular deaths.

"That's a significant benefit," Traber said. Yet, she added, "In some people high doses of vitamin E increase the tendency to bleed. Women enrolled in the study had an increase in nose bleeds."

To lessen the bleeding risk, the U.S.-based Food and Nutrition Board in 2000 set the upper tolerable limit for daily vitamin E intake at 1500 I.U.



Research Traber reviewed suggests that a shared metabolic pathway in the liver causes vitamins E and K to interact. Vitamin K in the liver appears to diminish as vitamin E increases.

"Several different explanations could account for the interaction between the two vitamins," Traber said. "We need more research to understand the delicate balance between vitamins E and K."

Source: Wiley

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