

With Vitamin E Supplements, Risk Is Lower for Ischemic Stroke but Higher for Hemorrhagic Stroke

Widespread use of vitamin E supplements is not recommended.

A plausible theory exists that vitamin E, an antioxidant, would prevent cardiovascular disease. The results of prospective randomized trials, however, have been mostly negative, and some have suggested harm, including excess risk for hemorrhagic stroke ([JW Gen Med Nov 13 2008](#), [JW Gen Med Sep 27 2007](#), and [JW Gen Med Aug 2 2005](#)). In this meta-analysis of nine randomized placebo-controlled trials with nearly 119,000 participants, investigators evaluated the effect of vitamin E supplementation on risk for overall, ischemic, and hemorrhagic strokes.

Seven trials provided information on overall stroke, and five trials each provided information on ischemic stroke and hemorrhagic stroke. Vitamin E had no effect on risk for overall stroke. Risk for ischemic stroke was 10% lower and risk for hemorrhagic stroke was 22% higher in vitamin E recipients than in placebo recipients; these differences were significant. Absolute risk differences, however, were small; 476 people would need to take vitamin E for at least 1 year to prevent one ischemic stroke, and 1250 people would need to take vitamin E to cause one hemorrhagic stroke.

Comment: Vitamin E supplementation has no effect on overall stroke, has minimal beneficial effect on ischemic stroke, and raises risk for hemorrhagic stroke. The authors advise against "indiscriminate widespread use of vitamin E" supplementation.

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