

Vitamin E may prevent pneumonia in nonsmoking elderly men

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Administration of 50 mg per day of vitamin E decreased the risk of pneumonia in elderly male smokers by 72% after they quit smoking, according to a paper published in *Clinical Interventions in Aging*.

Dr. Harri Hemila, University of Helsinki, Finland, studied whether vitamin E supplementation might influence the risk of community-acquired [pneumonia](#). He analyzed the data of the randomized trial (Alpha-Tocopherol Beta-Carotene Cancer Prevention [ATBC] Study) which was conducted in Finland between 1985-1993 and included male smokers aged from 50 to 69 years.

The age when the participant had started to smoke significantly modified the effect of vitamin E on pneumonia. Vitamin E decreased the risk of pneumonia by 35% in 7,469 participants who had started smoking at a later age, at 21 years or older, whereas the vitamin had no apparent effect on pneumonia for those who had started to smoke at a younger age.

Among the 7,469 participants who started to smoke at a later age, vitamin E supplementation reduced the incidence of pneumonia by 69% in a subgroup of 2,216 light smokers who exercised in their leisure time. In this subgroup, vitamin E prevented pneumonia in 12.9% of the participants by the time they reached the age of 74 years, which corresponds to one in eight getting a benefit from the vitamin. The vitamin did not have a significant effect on participants who smoked heavily or had not been taking exercise.

One-third of the 7,469 participants quit smoking for a period and 27 of them got pneumonia. These 27 cases of pneumonia can be used to estimate the effect of vitamin E on currently nonsmoking males. The incidence of pneumonia was 72% lower in the vitamin E participants who had quit smoking, and this benefit from vitamin E was also seen among those who smoked heavily or did not exercise.

Although the evidence of benefit from vitamin E against community-acquired pneumonia in elderly males is strong in this analysis, the overall findings about vitamin E have been complex. Furthermore, the participants of the ATBC Study had mostly been born in the 1920s and 1930s, and lived through the World War II years. "Thus, even though the 72% decrease in pneumonia risk with vitamin E in ATBC participants who quit smoking may be a real effect, it should not be generalized to current elderly males in Western countries. Further research on vitamin E in nonsmoking elderly males is warranted," Hemilä states.

More information: Harri Hemila. Vitamin E administration may decrease the incidence of pneumonia in elderly males, *Clinical Interventions in Aging* (2016). DOI: [10.2147/CIA.S114515](https://doi.org/10.2147/CIA.S114515)

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