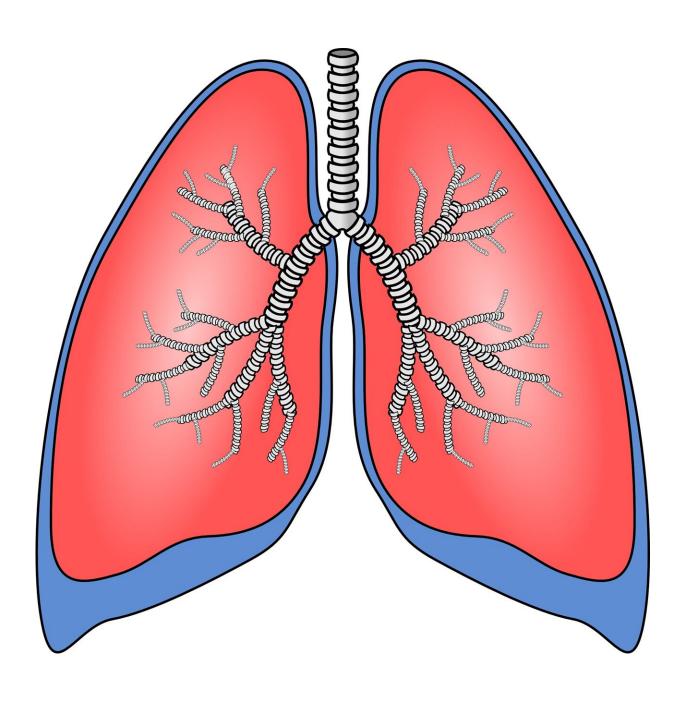


Large study suggests people with low levels of vitamin K have less healthy lungs

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People with low levels of vitamin K in their blood are more likely to have poor lung function and to say they suffer with asthma, chronic obstructive pulmonary disease (COPD) and wheezing, according to a study published in *ERJ Open Research*.

Vitamin K is found in leafy green vegetables, vegetable oils and cereal grains. It plays a role in <u>blood clotting</u>, and so helps the body to heal wounds, but researchers know very little about its role in <u>lung</u> health.

Researchers say their new findings do not alter the current advice on vitamin K intake, but they do support further research to see if some people could benefit from taking vitamin K supplements.

The study was by team of Danish researchers at Copenhagen University Hospital and the University of Copenhagen. It involved a group of 4,092 people aged between 24 and 77 years living in Copenhagen.

Study participants took part in lung function testing, called spirometry, gave <u>blood samples</u> and answered questionnaires on their health and lifestyle. The blood tests included a marker of low levels of vitamin K in the body called dp-ucMGP. Spirometry measures the amount of air a person can breathe out in one second (forced expiratory volume or FEV₁) and the total volume of air they can breathe in one forced breath (forced vital capacity or FVC).

The researchers found that people with markers of low levels of vitamin K had lower FEV₁ and lower FVC on average. People with lower levels of vitamin K were also more likely to say they had COPD, asthma or wheezing.



Researcher, Dr. Torkil Jespersen said, "We already know that vitamin K has an important role in the blood and research is beginning to show that it's also important in heart and bone health, but there's been very little research looking at vitamin K and the lungs. To our knowledge, this is the first study on vitamin K and lung function in a large general population. Our results suggest that vitamin K could play a part in keeping our lungs healthy."

"On their own, our findings do not alter current recommendations for vitamin K intake, but they do suggest that we need more research on whether some people, such as those with <u>lung disease</u>, could benefit from vitamin K supplementation."

The research team are already working on a large clinical trial comparing vitamin K supplementation with a placebo (dummy pill) to look at any effects on heart and bone health in the general population (the InterVitaminK trial). Based on their new results, they will now include analyses of lung function in this trial.

Dr. Apostolos Bossios from Karolinska Institutet in Sweden is Secretary of the European Respiratory Society's assembly on Airway diseases, asthma, COPD, and chronic cough, and was not involved in the research. He said, "This study suggests that people with low levels of vitamin K in their blood may have poorer lung function. Further research will help us understand more about this link and see whether increasing vitamin K can improve lung function or not."

"In the meantime, we can all try to eat a healthy, <u>balanced diet</u> to support our overall health, and we can protect our lungs by not smoking, taking part in exercise and doing all we can to cut air pollution."

More information: Torkil Jespersen et al, The association of vitamin K status with lung function and disease in a general population, *ERJ*



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