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Vitamin D may play a role in keeping lungs healthy, with higher concentrations of vitamin D resulting in positive effects on lung function and health.

VITAMIN D LEVELS LINKED TO HEALTHY LUNG FUNCTION

Low concentrations of vitamin D have been associated with a number of diseases. Research out of New Zealand indicates that serum concentrations of vitamin D may also influence pulmonary (lung) function.

In a study published in the journal *Chest*, original analysis was performed on data from 14,091 adult subjects (all participants in the U.S. National Health and Nutrition Examination Survey conducted between 1988 and 1994). Lung function was measured in two ways: by the volume of air that could be forcibly blown out in total (forced vital capacity, or FVC), and the volume blown out in one second (forced expiratory volume, or FEV1). Vitamin D was measured using serum 25-hydroxyvitamin D, a standard indicator of vitamin D levels.

After adjusting for age, gender, height, body mass index, ethnicity, and smoking history, the difference in lung function between the groups with the highest and lowest vitamin D intake was substantial in both the FVC and FEV1 tests (172 mL and 126 mL respectively, $p < 0.0001$). Further adjustment for physical activity, vitamin D supplementation, milk intake, and serum antioxidant status revealed additional strong correlation between the highest and lowest intake groups (142 mL (FVC) and 106 mL (FEV1), $p < 0.0001$).

Although further studies are necessary to determine whether vitamin D supplementation may be beneficial in cases of chronic respiratory disease, this study has shown that vitamin D may have a positive influence on pulmonary health, with greater levels of vitamin D associated with more positive benefits.

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