

# Vitamin D benefits breathing in tuberculosis patients

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Maintaining adequate levels of vitamin D can help people breathe better and may even protect against tuberculosis (TB), according to a recent study accepted for publication in The Endocrine Society's *Journal of Clinical Endocrinology & Metabolism (JCEM)*.

The study of more than 10,000 Korean adults found that lung function improved when people had absorbed more vitamin D into their bodies. Vitamin D is absorbed primarily through sunlight, with a healthy diet as a secondary source.

Without enough vitamin D to aid calcium absorption, children and adults can develop bone and muscle conditions. The study improved scientists' understanding of how vitamin D may improve lung function as well as bone health.

"The research identified a clear connection between lung function and vitamin D levels in the blood," said the study's lead author, Chan-Jin Choi, MD, PhD, of the Catholic University of Korea's College of Medicine. "The link remained in place, regardless of age, gender, weight or lifestyle."

The study found people who had a history of TB had significantly lower levels of the vitamin D biomarker, called 25-hydroxyvitamin D (25(OH)D), in their blood. Lung function improved in this population when 25(OH)D levels rose.

Researchers theorize vitamin D could enhance patients' innate immunity, help them recover from infection and regulate lung tissue degradation.

"This study suggests TB patients may benefit from receiving vitamin D therapy to improve their lung function," Choi said. "Vitamin D also has potential as a preventative measure for TB. More research is needed to explore the impact vitamin D has on the condition."

People who already are taking the recommended dose of vitamin D supplements may not need to change their routine to reap the benefits the vitamin has on lung function. The study found negligible benefit for people whose vitamin D biomarker levels exceeded the range 16.5-24.9 ng/ml, which is well below the levels The Endocrine Society recommends for bone health in its [guidelines](#).

The study was the first to examine [vitamin D](#) and [lung function](#) in an East Asian population. Researchers collected the cross-sectional survey data as part of the Korea National Health and Nutrition Examination Surveys, 2008-2010.

**More information:** The article, "Relationship between Serum 25-Hydroxyvitamin D and Lung Function among Korean Adults in Korea National Health and Nutrition Examination Survey (KNHANES), 2008- 2010," appears in the April 2013 issue of *JCEM*.

Provided by The Endocrine Society

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