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Low vitamin D levels do not increase the risk of chronic obstructive pulmonary disease

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Vitamin D levels are not related to acute exacerbations of chronic obstructive pulmonary disease (AECOPD) in patients with severe COPD, according to a large prospective cohort study involving 973 North American patients. The findings were published online ahead of the print edition of the *American Thoracic Society's American Journal of Respiratory and Critical Care Medicine*.

In the study, a secondary analysis of data from a randomized, controlled trial of the effects of azithromycin on the frequency of AECOPD, no relationship was found between baseline Vitamin D levels and time to first AECOPD or between vitamin D levels and AECOPD exacerbation rates.

"Vitamin D insufficiency and deficiency are common in patients with COPD, and patients with severe COPD are at the highest risk for exacerbations, so we hypothesized that low vitamin D levels might increase the risk of AECOPDs," said Ken M. Kunisaki, M.D., of the Minneapolis Veterans Affairs Medical Center. "Our negative results are in contrast with earlier studies in which lower vitamin D levels were associated withhigher rates of respiratory infections in adults and more frequent asthma exacerbations in children."

In the current study, mean forced expiratory volume in one second (FEV1) was 1.12L, 40% of predicted. Mean vitamin D level at baseline was 25.7 ± 12.8 ng/mL, with 33.1% of subjects categorized as vitamin D insufficient (≥20 ng/mLbut

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