

Study finds asthmatics with Vitamin D deficiency are 25 percent more likely to experience acute attacks

October 28 2014



Asthma, which inflames and narrows the airways, has become more common in recent years. While there is no known cure, asthma can be managed with medication and by avoiding allergens and other triggers. A new study by a Tel Aviv University researcher points to a convenient, free way to manage acute asthmatic episodes—catching some rays outside.

According to a paper recently published in the journal *Allergy*, measuring and, if need be, boosting Vitamin D levels could help manage

asthma attacks. The research, conducted by Dr. Ronit Confino-Cohen of TAU's Sackler Faculty of Medicine, Meir Medical Center, and the Clalit Research Institute, and Dr. Becca Feldman of the Clalit Research Institute drew on the records of millions of patients and used physician diagnoses, rather than self-reports, for evidence of asthma episodes.

"Vitamin D has significant immunomodulatory effects and, as such, was believed to have an effect on asthma—an immunologically mediated disease," said Dr. Confino-Cohen. "But most of the existing data regarding Vitamin D and asthma came from the pediatric population and was inconsistent. Our present study is unique because the study population of young adults is very large and 'uncontaminated' by other diseases."

A Broad Study

Dr. Confino-Cohen and her team of researchers analyzed the medical records of nearly four million members of Clalit Health Services, Israel's largest health care provider. The Vitamin D levels of 307,900 people were measured between 2008 and 2012. Researchers also took into account key predictors of asthma, such as obesity, smoking, and other chronic diseases. Of some 21,000 asthma patients in Israel studied, those with a Vitamin D deficiency were 25 percent more likely than other asthmatics to have had at least one flare-up in the recent past.

The researchers found that Vitamin D-deficient asthmatics were at a higher risk of an [asthma attack](#). "Uncontrolled asthma" was defined as being prescribed at least five rescue inhalers, one prescription of oral corticosteroids, or visiting the doctor for asthma at least four times in a single year.

"Our results add more evidence to the link between Vitamin D and asthma, suggesting beneficial effects of Vitamin D on [asthma](#)

[exacerbations](#)," said Dr. Confino-Cohen. "We expect that further prospective studies will support our results. In the meantime, our results support a recommendation for screening of Vitamin D levels in the subgroup of [asthma patients](#) who experience recurrent exacerbations. In those with Vitamin D deficiency, supplementation may be necessary."

Sunny Side Up?

While most of the Vitamin D in people's bodies comes from exposure to the sun, dermatologists recommend obtaining the ingredient from other sources—fish, eggs, cod liver oil, fortified milk, or a dietary supplement—due to the dangers of overexposure to the sun.

"We know a lot about this disease and many therapeutic options are available. So it's quite frustrating that the prevalence of asthma is not decreasing and many patients suffer exacerbations and significant impairment in their quality of life," Dr. Confino-Cohen, an allergy and clinical immunology specialist, said. "Increasing Vitamin D levels is something we can easily do to improve patients' quality of life."

Based on the findings, the researchers recommend that people whose asthma cannot be controlled with existing treatments have their Vitamin D levels tested. For those with a [vitamin](#) D deficiency, supplements may make sense.

"This study provided an exceptional opportunity to research [asthma](#). I received a research grant from Clalit Health Services, which provided us with the opportunity to use their very large database and to conduct the study with the professional staff of Clalit Research Institute," said Dr. Confino-Cohen. "We anticipate further prospective research that will support our findings and open a new treatment modality to the population of uncontrolled asthmatics."

Provided by Tel Aviv University

Citation: Study finds asthmatics with Vitamin D deficiency are 25 percent more likely to experience acute attacks (2014, October 28) retrieved 28 January 2023 from <https://medicalxpress.com/news/2014-10-asthmatics-vitamin-d-deficiency-percent.html>

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