

Data show individuals with type 2 diabetes are at higher risk of asthma, and vice versa

September 9 2024



Credit: Pixabay/CC0 Public Domain

Individuals with type 2 diabetes (T2D) are more likely to develop asthma—and vice versa, according to an analysis of data on 17 million people presented at the annual meeting of the [European Association for the Study of Diabetes](#) (EASD) in Madrid, Spain (9–13 September).

The results of the study, by researchers in Taiwan, underscore the importance of screening for asthma when T2D is diagnosed and for T2D when asthma is diagnosed.

"The global rates of asthma and type 2 [diabetes](#), both of which are common health issues, are on the rise," says Dr. Nam Nguyen, of the College of Medicine, Taipei Medical University, Taipei, Taiwan, who led the research.

"These conditions negatively impact an individual's quality of life and are expected to create an increasing medical and economic burden. However, the evidence linking the two and the mechanisms behind this connection remain unclear, highlighting the need for comprehensive research into their association."

To explore the connection and the potential contributory factors, Dr. Nguyen conducted a [systematic review](#) and meta-analysis of existing research on the topic.

Four medical journal databases were extensively searched for studies that looked at the connection between asthma and T2D.

The [meta-analysis](#) included data on 17 million individuals from 14 studies conducted in a diverse range of continents and countries, including Europe (UK, Finland, Denmark), America (U.S.), and Asia (Korea, Singapore, China and Israel). The majority of the participants were middle-aged, ranging from 50 to 70 years old.

The results showed that asthma and diabetes have a reciprocal relationship: individuals with asthma are 28% more likely to develop T2D than those without asthma and individuals with T2D are almost twice as likely (83% more likely) to develop asthma than those without T2D.

This suggests that the two conditions may have some of the same underlying causes or have other factors in common.

Further analysis indicated that several factors, including hypertension and dyslipidemia (unhealthy levels of blood fats such as cholesterol), appear to be associated with an increased risk of both asthma and T2D.

Asthma severity was associated with a higher risk of T2D, with the risk increasing in line with severity. However, asthma duration was not associated with T2D risk.

Dr. Nguyen says, "Our findings have important implications for clinical practice. Firstly, this relationship emphasizes the need for greater awareness among patients with type 2 diabetes or asthma and their health care providers.

"Secondly, preventive strategies should be considered to lower the risk of type 2 diabetes in individuals with asthma. For instance, screening for and addressing prediabetes in asthma patients promptly before it develops into type 2 diabetes, or carefully managing the use of systemic corticosteroids, which can not only cause temporary hyperglycemia but are also linked to an increased risk of type 2 diabetes.

"In addition, the potential shared mechanistic pathways between [asthma](#) and T2D proposed by our study offer a new framework for research."

Provided by Diabetologia

Citation: Data show individuals with type 2 diabetes are at higher risk of asthma, and vice versa (2024, September 9) retrieved 9 September 2024 from <https://medicalxpress.com/news/2024-09-individuals-diabetes-higher-asthma-vice.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.