

Pulmonary expert explains importance of warm air during cold weather

February 16 2024, by Aaron Nieto



Credit: Pixabay/CC0 Public Domain

Colder, dry air impacts lung health, with symptoms that range from bothersome to distressing. With cold temperatures forecasted for the Houston area this weekend, a pulmonary expert with Baylor College of

Medicine explains the importance of warm air during colder temps and which populations should pay close attention to forecasted temperatures.

"The body has many ways to adjust to [cold environments](#); however, in certain cases, cold air can be very detrimental," said Dr. Nicola Hanania, professor of pulmonary medicine at Baylor.

Lungs require warm, humid air to properly function. Our nose and nasal cavity act as a natural air heater and humidifier, allowing us to breath normally in colder conditions. Cold, dry air causes hyperemia, or increased [blood supply](#), to the lining of the airway, causing it to narrow, twitch or even dry out in some individuals.

Minor impacts of hyperemia in the airway includes shortness of breath, wheezing or even bronchospasms, which feels like sharp pains in the chest. People who exercise or partake in strenuous outdoor activities may experience these symptoms more often as the body will rely on breathing through the mouth for more oxygen intake, preventing the warming and humidifying of air required for normal lung function.

"Your lungs will not freeze in moderately cold temperatures as other bodily functions keep it at a normal temperature of about 37°," Hanania said.

Patients with [chronic lung diseases](#), such as asthma, COPD or emphysema, are more likely to face complications if not protected against cold air. Asthma and COPD sufferers may experience increased bronchospasm frequency, asthma attacks or flare-ups, where a rescue inhaler is required. Those with emphysema may rely on bronchodilators and other prescribed drugs to calm serious symptoms.

Fortunately, there are steps to protect yourself against experiencing negative effects of cold air, whether you suffer from a chronic disease or

not. Hanania advises those who exercise in [cold weather](#) to wear a scarf, mask or other face covering that traps heat.

This allows air inhaled through the mouth to be heated. This can also be a big benefit for those with chronic lung conditions who find going about their day to be difficult during colder seasons. Those with chronic diseases should also have appropriate medications ready in case of an emergency. Hanania also encourages practicing inhaling through your nose as much as possible to prevent excessive cold air intake.

"I know someone with [asthma](#) who recently ran the Houston marathon on a day when the temperature was around freezing, so cold air doesn't have to prevent anyone from participating in [intense exercise](#) or going about their daily lives," Hanania said.

Provided by Baylor College of Medicine

Citation: Pulmonary expert explains importance of warm air during cold weather (2024, February 16) retrieved 27 April 2024 from <https://medicalxpress.com/news/2024-02-pulmonary-expert-importance-air-cold.html>

<p>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.</p>
--