

Attacking asthma in kids

August 14 2019



Children with asthma use inhalers to relieve some of their symptoms, which include coughing, wheezing, chest tightness and shortness of breath. Credit: Tradimus / Wikimedia commons / [CC BY-SA 3.0](#)

According to the World Health Organization, asthma is the most prevalent chronic childhood disease worldwide. That's why researchers are working on developing technology that could predict when a child will have an asthma attack and provide prevention and treatment suggestions, according to an article in *Chemical and Engineering News (C&EN)*, the weekly news magazine of the American Chemical Society.

For asthma treatments to be more effective, there needs to be a shift to individually tailored care, some experts say. To help make this possible, researchers are using [smart phones](#), watches and various sensors to gather data from children with asthma, Senior Editor Britt Erickson writes. The devices track [geographical location](#), [physical activity](#), air quality and health data, which are wirelessly transmitted to the user's smart device in real time. To encourage the children to self-report [daily activities](#) and symptoms, the researchers created an animated dragon that asks the children questions. The dragon appears happy when questions are answered, and he becomes hungry when he needs to be fed more answers.

Researchers are now assessing the system in a formal epidemiological study that launched in February. The study will also test new sensors that measure different forms of air pollution, such as black carbon, ozone and particulate matter. The platform is continuously being improved with new information and user feedback. Although the potential for [privacy issues](#) exists with regard to location data, most subjects are willing to be tracked because of the potential benefits for their health. The researchers say that the new technology will make it possible to understand how different factors such as behavior, exposures, stressors and ecological factors combine to affect asthma.

More information: Predicting asthma attacks in kids, cen.acs.org/environment/pollut...-attacks-kids/97/i32

Provided by American Chemical Society

Citation: Attacking asthma in kids (2019, August 14) retrieved 16 April 2024 from <https://medicalxpress.com/news/2019-08-asthma-kids.html>

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