

Homes with high ventilation rates tied to respiratory issues

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(HealthDay)—People living in homes with high average air exchange

rates (AAERs) are more likely to report chronic cough, asthma, or asthma-like symptoms, according to a study published in the February issue of *Environmental Research*.

Elizabeth J. Carlton, Ph.D., M.P.H., from the University of Colorado in Aurora, and colleagues evaluated the relationship between air exchange rates and respiratory health in a multiethnic population (302 individuals) living in 216 nonsmoking, low-income single-family homes, duplexes, and townhomes in Colorado's Northern Front Range. A blower door test was used to determine the annual AAER for each home. A questionnaire assessed the [respiratory health](#) of residents.

The researchers found that air exchange rates in many homes were high compared with those in previous studies (median, 0.54 air changes per hour). Chronic cough, asthma, and asthma-like symptoms, including taking medication for wheeze, wheeze that limited activities, and dry cough at night, were more likely to be reported by residents in homes with higher AAER. There was no association between allergic symptoms and AAER. For households located in areas with high potential exposure to traffic-related pollutants, the association between AAER and [asthma](#)-like symptoms was stronger, but this association was not consistent across all [health outcomes](#).

"It is possible that in homes with high air exchange rates, outdoor pollutants are entering the home and affecting health," Carlton said in a statement. "If true, home-energy efficiency measures may be an effective way to protect health in areas with high pollution such as homes located near major roads."

More information: [Abstract/Full Text \(subscription or payment may be required\)](#)

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