

Children with common allergies have twice heart disease risk

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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](#)

Children with allergic disease, particularly asthma and hay fever, have about twice the rate of high blood pressure and high cholesterol, setting them on a course for heart disease at a surprisingly early age, reports a new Northwestern Medicine study.

Even when the study controlled for obesity, children with allergic disease had a much higher risk for [high blood pressure](#) and [high cholesterol](#).

"This study shows that [cardiovascular risk](#) starts far earlier in life than we ever realized," said lead study author Dr. Jonathan Silverberg, an associate professor of dermatology at Northwestern University Feinberg School of Medicine and a Northwestern Medicine dermatologist.

The study will be published Dec. 8 in the *Journal of Allergy & Clinical Immunology*.

"Given how common these [allergic diseases](#) are in childhood, it suggests we need to screen these children more aggressively to make sure we are not missing high cholesterol and high blood pressure," Silverberg said. "There may be an opportunity to modify their lifestyles and turn this risk around."

Asthma, [hay fever](#) and eczema—increasingly common in U.S. children—are associated with chronic inflammation, impaired physical activity, sleep disturbance and significant morbidity. But little has been known about the cardiovascular risk factors in children with these diseases.

Silverberg studied the association of asthma, hay fever and eczema in the U.S. and cardiovascular risk factors using data from the 2012 National Health Interview Survey, including 13,275 children who were representative of the population from all 50 states. Asthma occurred in 14 percent of children, eczema in 12 percent and hay fever in 16.6 percent. Asthma, hay fever and eczema were all associated with higher rates of overweight or obesity.

Because the association with hypertension and high cholesterol exists separately from obesity, Silverberg said inflammation occurring in

asthma and hay fever might contribute to the higher rates of cardiovascular disease. Also, children with profound asthma are typically more sedentary, which also may have a harmful effect and drive up blood pressure and cholesterol.

In a prior paper, Silverberg showed adults with allergic disease have a higher risk of cardiovascular disease.

Provided by Northwestern University

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