

Severe Allergies in Children May Increase Heart Risk



By Lila Abassi — December 8, 2015



[1] childhood allergies

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Children with severe allergies have increased cardiovascular risk, according to a recent study published in the *Journal of Allergy and Clinical Immunology*.

Children with diseases such as asthma, hay fever and eczema, which are chronic inflammatory disorders, were found to have greater risk factors for heart disease.

The study included a total of 13,275 children from birth to 17 years of age from the 2012 National Health Interview Survey (NHIS). Based on these data, the researchers estimated that the prevalence of asthma, eczema and hay fever to be 14, 12 and 16.6 percent, respectively.

Previous studies had found a positive association between cardiovascular disease and eczema in adults; however, the data were lacking for the pediatric population.

Pediatric asthma and hay fever were associated with increased odds of being overweight and obese, having high blood pressure and high cholesterol -- but not diabetes.

Eczema, which is an allergic condition where the skin becomes itchy and inflamed, was also associated with increased odds of being overweight and obese -- but not having high blood pressure, high cholesterol or diabetes.

You have common health problems that turn out to have a lot more serious consequences in some kids, according to the study's lead author Jonathan Silverberg, MD, an associate professor of dermatology at the Northwestern University Feinberg School of Medicine in Chicago. Children and teens with severe allergic disease may benefit from increased screening for high blood pressure and cholesterol, he added.

The absolute risk difference for cardiovascular risk factors between allergic and non-allergic kids, however, were small, as the authors explain it is because of the low prevalence of cardiovascular disease risk factors in children.

For example, asthma and hay fever were associated with 1.3 percent and 1.1 percent increased risk of high blood pressure, and only a 0.9 percent and 0.9 percent increased risk of high

cholesterol, respectively.

Clearly, not every kid with allergic disease has increased cardiovascular disease. Based on other studies, we suspect that it is mostly kids with more severe disease, though we were not able to examine that in this particular study, stated Dr. Silverberg.

Children who suffer from these ailments, aside from being exposed to the chronically elevated markers of inflammation (which has been posited to contribute to elevated cholesterol and blood pressure levels) also suffer from chronic sleep disturbances, are more sedentary because of functional limitations, and use more corticosteroids and other medications which suppress the immune system -- all of which can cause weight gain.

As the authors wisely suggest, given the public health burden associated with cardiovascular disease, it would be of great clinical value to further examine whether or not early and aggressive treatment of allergic disease will yield a benefit in terms of risk reduction.

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