Dogs may protect against childhood eczema and asthma

27 October 2017

"Good dog!" Two studies being presented at the American College of Allergy, Asthma and Immunology (ACAAI) Annual Scientific Meeting show there may be even more reason to love your dog. The first study shows babies born in a home with a dog during pregnancy receive protection from allergic eczema, though the protective effect goes down by age 10. A second study shows dogs may provide a protective effect against asthma, even in children allergic to dogs.

"Although eczema is commonly found in infants, many people don't know there is a progression from eczema to food allergies to nasal allergies and asthma," says allergist Gagandeep Cheema, MD, ACAAI member and lead author. "We wanted to know if there was a protective effect in having a dog that slowed down that progress."

The study examined mother-child pairs exposed to a dog. "Exposure" was defined as keeping one or more dogs indoors for at least one hour daily. "We found a mother's exposure to dogs before the birth of a child is significantly associated with lower risk of eczema by age 2 years, but this protective effect goes down at age 10," says allergist Edward M. Zoratti, MD, ACAAI member and a study co-author.

In the second study, researchers examined the effects of two different types of dog exposure on children with asthma in Baltimore. The first type was the protein, or allergen, that affects children who are allergic to dogs. The second type were elements, such as bacteria, that a dog might carry. The researchers concluded that exposure to the elements that dogs carry may have a protective effect against asthma symptoms. But exposure to the allergen may result in more asthma symptoms among urban children with dog allergy.

"Among urban children with asthma who were allergic to dogs, spending time with a dog might be associated with two different effects," says Po-Yang Tsou, MD, MPH, lead author. "There seems to be a protective effect on asthma of non-allergen dog-associated exposures, and a harmful effect of allergen exposure." The researchers believe that a child's contact with factors other than dog allergen, such as bacteria or other unknown factors, may provide the protective effect. "However, dog allergen exposure remains a major concern for kids who are allergic to dogs," says Dr. Tsou.

People with dog allergy should work with their allergist to reduce exposure. ACAAI has additional tips for those with dog allergy who keep a dog in the home:

- Keep your dog out of your bedroom and restrict it to only a few rooms. But know that keeping the dog in only one room will not limit the allergens to that room.
- After you pet or hug your dog, wash your hands with soap and water.
- High-efficiency particulate air (HEPA) cleaners that run continuously in a bedroom or living room can reduce allergen levels over time. Regular use of a high-efficiency vacuum cleaner or a central vacuum can also reduce allergen levels.
- Giving your dog a bath at least once a week can reduce airborne dog allergen.

Provided by American College of Allergy, Asthma, and Immunology