

Dog ownership is associated with reduced eczema in children with dog allergies

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Children with eczema, a chronic skin condition that often begins in childhood, have a greater risk of developing asthma and food allergies. The number of children with eczema is rising, but the reasons for this are unclear. A new study soon to be published in *The Journal of Pediatrics* examines the relationship between pet ownership and eczema. Researchers found that dog ownership among children with dog allergies may reduce the risk of developing eczema by age 4 years; cat ownership, however, may increase the risk among children with cat allergies.

Dr. Tolly Epstein and colleagues from the University of Cincinnati and Cincinnati Children's Hospital Medical Center gathered data from 636 children enrolled in the Cincinnati Childhood Allergy & Air Pollution Study (CCAAPS), a long-term epidemiologic study examining the effects of environmental particulates on childhood respiratory health and allergy development. Children enrolled in the study are considered at high risk for developing allergies because they were born to parents with allergies. The researchers focused on several potential risk factors for developing eczema, including dog and cat ownership. The children were tested for 17 separate allergies on a yearly basis from ages 1 through 4 years, and the parents completed yearly surveys.

The results provided interesting information regarding pet ownership. The researchers found that children who tested positive for dog allergies were less likely to develop eczema by age 4 years if they owned a dog before age 1 year. According to Dr. Epstein, "Children with dog allergies who did not own dogs were 4 times more likely to develop eczema."



Unlike dog ownership, cat ownership seemed to have a negative effect on children with cat allergies. "Children who owned a cat before age 1 year and were allergic to cats based on a skin allergy test were 13 times more likely to develop eczema by age 4 years," Dr. Epstein explains. She notes, however, that children who were not allergic to cats were not at an increased risk for eczema if they owned a cat. Dr. Epstein suggests that parents of children at risk for eczema may want to consider these findings when choosing a family pet.

More information: The study, reported in "Opposing Effects of Cat and Dog Ownership and Allergic Sensitization on Eczema in an Atopic Birth Cohort" by Tolly G. Epstein, MD, MS, David I. Bernstein, MD, Linda Levin, PhD, Gurjit K. Khurana Hershey, MD, PhD, Patrick H. Ryan, PhD, Tiina Reponen, PhD, Manuel Villareal, MD, James E. Lockey, MD, MS, and Grace K. LeMasters, PhD, appears in *The Journal of Pediatrics*, DOI:10.1016/j.jpeds.2010.07.026

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