

## Early Animal Exposure and Childhood Illnesses

Allergies, such as hay fever, and autoimmune diseases, such as type 1 diabetes, often run in families. However, whether a child develops an allergy or autoimmune disease appears to be influenced by what the child is exposed to before birth and in early life. For example, we now know that early exposure to foods containing peanuts reduces the risk of children having peanut allergies.

Many parents wonder how exposure to animals may affect their child's risk for allergies or other autoimmune illnesses. Exposure to animals can occur through having a furry pet at home, such as a cat or dog, or by growing up among farm animals. Animal fur contains many bacteria as well as dust and soil. Some parents may be concerned that being exposed to these bacteria or allergic contents in a pet's fur might increase the risks of a child developing allergies or autoimmune illnesses. People used to be concerned that early exposure to pet fur might trigger a child's immune system and lead to allergies or autoimmune diseases.

Based on more current research studies, we now understand that exposing children to pets early in life does not lead to an increased risk of allergies or autoimmune illnesses. A study in this month's issue of *JAMA Pediatrics* evaluated dog exposure among children beginning at 1 year. The researchers evaluated the children annually for several years and found that there was no association between early exposure to dogs and developing type 1 diabetes in childhood. Other studies have found that exposure to pets early in life may contribute to a decreased risk of developing allergies.

One of the explanations offered for how early exposure to furry pets does not increase risks of allergies or autoimmune diseases is the "hygiene hypothesis." This idea is that improved cleanliness and hygiene in our modern society, such as using antibacterial wipes and hand gel, have reduced the exposure of children to germs and bacteria during early childhood. The hygiene hypothesis proposes that early exposure to germs and bacteria can help a child's immune system develop healthy defenses and protections.

Notably, children can develop allergies at any time, and there is no health benefit to keeping a pet that your child is allergic to at home. Further, if your child is already allergic to pets, it is important to carefully consider the decision to get a new pet or keep a current one, as allergies can be significantly worsened by this exposure. If



you are considering the role that a pet could play in your child's risk of developing allergies or autoimmune diseases, talk about it with your pediatrician.

### FOR MORE INFORMATION

Time Magazine

<http://healthland.time.com/2011/06/13/study-living-with-pets-may-protect-infants-from-allergies/>

American Academy of Allergy, Asthma & Immunology

<http://www.aaaai.org/conditions-and-treatments/allergies/pet-allergy>

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**Author:** Megan A. Moreno, MD, MSEd, MPH

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