

## The health benefits of raising babies with dogs

The relationship between early-life exposure to dogs and the development of allergic diseases, such as asthma and eczema, is complex. Traditionally, pets were thought to cause allergies. However, a growing body of research suggests that, under certain conditions, the opposite is true: early exposure to dogs might protect against these disorders.

Dogs bring environmental microbes into the home. Early exposure to a diverse microbial environment is thought to train the immune system so that it does not become overly reactive.

This process is like immunotherapy, a therapy approach to treat disease with substances that stimulate an immune response.

### Eczema

Researchers involved with the Copenhagen Prospective Studies on Asthma in Childhood, a series of cohort studies, investigated whether exposure to dogs from birth reduces risk of atopic dermatitis. They found that neonatal domestic dog exposure was associated with a strongly reduced risk of atopic dermatitis in two independent birth cohorts.<sup>1</sup>

A study published this year from the University of Edinburgh explored how various environmental factors — from breastfeeding and smoking to pet ownership and hygiene regimens — might influence a baby's risk of developing eczema. Researchers tested for interactions between the 24 most significant eczema-associated genetic variants and 18 early-life environmental factors during pregnancy and the child's first year.

Looking at the DNA of over 250,000 people, the research team found that a specific genetic variant linked to a higher risk of eczema was significantly impacted by dog ownership. In babies with the gene, exposure to a dog during their first year of life appeared to nearly eliminate their risk of developing eczema.<sup>2</sup>

### Asthma

A 2015 Swedish study reviewed the national health registries of over one million children matched against dog-owner registries to study the association between early life contact with dogs and subsequent development of asthma. The team found that children who grew up with dogs had about 15 percent lower risk of asthma than children without dogs.<sup>3</sup>

Another Swedish study found that more pets (both cats and dogs) during the first year of life correlated with fewer incidences of asthma in children aged seven to nine. This research showed that the level of protection was dose-dependent — ie., the more animals, the stronger the protective effect.<sup>4</sup>

Research presented at the European Respiratory Society Congress this year showed that babies exposed to higher levels of the dog allergen *Can f 1* in their home had about a 48% lower risk of developing asthma by age five, compared to babies with lower exposure. Also, those high-exposure babies had better lung function. The team also found that there was no similar protective effect for exposure to cat allergens.<sup>5</sup>

While no guarantee, the balance of current evidence suggests that early exposure to dogs may reduce the

risk of eczema/atopic dermatitis and asthma in many children, especially when exposure happens early (neonatal or infancy), in sufficient 'dose', and in the context of the family's living environment. If there is a family history of asthma or eczema, it is best to talk through genetic factors with your family's healthcare team. 🐾

### Notes:

1. Thorsteinsdottir S, et al, Domestic dog exposure at birth reduces the incidence of atopic dermatitis, *European Journal of Allergy and Clinical Immunology*, 6 July 2016
2. Standl et al, Gene-Environment Interaction Affects Risk of Atopic Eczema: Population and In Vitro Studies, *European Journal of Allergy and Clinical Immunology*, 4 June 2025
3. Fall, Tove, et al, Early Exposure to Dogs and Farm Animals and the Risk of Childhood Asthma, *JAMA Pediatrics*, 2 November 2015.
4. Hesselmar et al, Pet-keeping in early life reduces the risk of allergy in a dose-dependent fashion, *PLoS One*, 19 December 2018
5. Nanishi et al, Association of early-life dust allergens and endotoxin with childhood asthma and lung function: An analysis of the CHILD study, *European Respiratory Society Congress*, 26 September 2025



Baby Levi is being raised with greyhound Dusty. Research suggests that Levi may have a reduced risk of both asthma and eczema as a result.