

Early contact with dogs linked to lower risk of asthma

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A team of Swedish scientists have used national register information in more than one million Swedish children to study the association of early life contact with dogs and subsequent development of asthma. This question has been studied extensively previously, but conclusive findings have been lacking. The new study showed that children who grew up with dogs had about 15 percent less asthma than children without dogs.

A total of more than one million [children](#) were included in the researchers' study linking together nine different national data sources, including two dog ownership registers not previously used for medical research. The results are being published for the first time in *JAMA Pediatrics*. The goal was to determine whether children exposed to animals early in life are at different risk of asthma.

"Earlier studies have shown that growing up on a farm reduces a child's risk of asthma to about half. We wanted to see if this relationship also was true also for children growing up with dogs in their homes. Our results confirmed the farming effect, and we also saw that children who grew up with dogs had about 15 percent less asthma than children without dogs. Because we had access to such a large and detailed data set, we could account for confounding factors such as asthma in parents, area of residence and socioeconomic status" says Tove Fall, Assistant

Professor in Epidemiology at the Department of Medical Sciences and the Science for Life Laboratory, Uppsala University, who coordinated the study together with researchers from the Karolinska Institutet in Stockholm, Sweden.

In Sweden, every person carries a unique personal number. Every visit to a specialist physician and every prescription made are recorded in national data bases, accessible for researchers after de-identification of data. Even [dog ownership](#) registration is mandatory in Sweden since 2001. These scientists studied whether having a parent registered as a dog-owner or animal farmer was associated with later diagnosis or medication for [childhood asthma](#).

"These kind of epidemiological studies look for associations in large populations but do not provide answers on whether and how animals could protect children from developing asthma. We know that children with established allergy to cats or dogs should avoid them, but our results also indicate that children who grow up with [dogs](#) have reduced risks of [asthma](#) later in life. Thanks to the population-based design, our results are generalizable to the Swedish population, and probably also to other European populations with similar culture regarding pet ownership and farming" says Catarina Almqvist Malmros, senior author on the study, Paediatrician at Astrid Lindgren Children's Hospital and Professor in Clinical epidemiology at Dept of Medical Epidemiology and Biostatistics at Karolinska Institutet, Stockholm.

More information: "Dog and farm animal exposure reduce risk of childhood asthma - a nationwide cohort study". Tove Fall, Cecilia Lundholm, Anne K Örtqvist, Katja Fall, Fang Fang, Åke Hedhammar, Olle Kämpe, Erik Ingelsson, and Catarina Almqvist. *JAMA Pediatrics*. In press. [DOI: 10.1001/jamapediatrics.2015.3219](https://doi.org/10.1001/jamapediatrics.2015.3219)

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