# Asthma and Animals



Some people with asthma also have allergies to animals, including pets and animals in the workplace. People may be sensitive to an animal dander, saliva, oil secretions, urine or faeces. This can trigger an asthma flare-up or worsen asthma symptoms.

## Which animals can trigger asthma?

Common animals include:

- Cats (cat allergens spread easily even if your cat is kept outside)
- Dogs
- Rabbits
- Mice, rats and guinea pigs
- Birds
- Horses

### What do I do if animals trigger my asthma?

If you are sensitised to an animal allergen, and exposure makes your asthma worse, it is recommended to avoid or reduce exposure where possible. If you cannot avoid exposure, reduction methods include;

- Washing your hands and clothing after touching animals
- Regularly cleaning/vacuuming floors, curtains and upholstery or having a family member who is not allergic to the animals do so
- Regularly bathing furred animals, unless this puts the animals health at risk
- Keeping animals out of your bedroom and away from carpets and soft surfaces where allergens can accumulate.

# What are hypoallergenic pets?

Some breeders claim certain breeds of dogs are 'hypoallergenic' and less likely to trigger asthma. However research shows allergen levels in these animals hair, coat and owners homes is no lower compared to other breeds.<sup>i, ii</sup>

## How can I reduce exposure to animals kept at my school?

Classrooms where animals are kept should be cleaned regularly, including animal housing. Urine, faeces and saliva should be removed and cleaned immediately. Furred animals should be regularly bathed, unless this puts the animals health at risk.

Schools should consider only having low risk animals such as fish, lizards and turtles. Animals in classrooms with highly sensitive students (students who react to very low levels of allergen) should be rehomed within the school.

#### Can exposure to animals prevent asthma?

Previous research has shown exposure to pets during infancy neither increased nor decreased the risk of asthma or allergic rhinitis, compared to no exposure.

New research has revealed exposure to multiple pets at home from an early age may protect against the development of asthma and other allergic diseases. One particular study associated exposure to cats and dogs (up to 5) during young childhood with decreased prevalence of asthma and allergies at age 7-9 years.<sup>iv</sup> The risk reduced in proportion to the number of pets.

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This supports previously known research associating the presence of farm animals with low rates of asthma and allergic disease.<sup>v, vi, vii</sup>

If family members within a household are not sensitised to animals, the early exposure to them could possibly serve as a mechanism to prevent this sensitisation in the first place. However, this must be considered amongst other risk and protective factors for asthma and allergy and should be discussed with your health professional.

 <sup>v</sup> Riedler, Eder, Oberfeld et al 2000, Austrian children living on a farm have less hay fever, asthma and allergic sensitization, Clinical and experimental allergy.
<sup>vi</sup> Riedler, Braun-Fahrlander, Eder et al 2001, Exposure to farming in early life and development of asthma and allergy: a cross-sectional survey, Lancet.

<sup>vii</sup> Campbell, Lodge, Lowe etal 2015, Exposure to 'farming' and objective markers of atopy: a systematic review and meta-analysis, Clinical and experimental allergy.

<sup>&</sup>lt;sup>i</sup> Vredegoor, Willemse, Chapman et al 2012, Can f 1 levels in hair and homes of different dog breeds: lack of evidence to describe any dog breed as hypoallergenic, J Allergy Clin Immunol.

<sup>&</sup>lt;sup>ii</sup> Nicholas, Wegienka, Havstad et al 2011, Dog allergen levels in homes with hypoallergenic compared with nonhypoallergenic dogs. Am J Rhinol Allergy. 2011; 25: 252-6.

<sup>&</sup>lt;sup>iii</sup> Lodrup Carlsen, Roll, Carlsen et al 2012. Does pet ownership in infancy lead to asthma or allergy at school age? Pooled analysis of individual participant data from 11 European birth cohorts, PloS one.

<sup>&</sup>lt;sup>iv</sup> Hesselmar, Hicke-Roberts, Lundell et al 2018, Petkeeping in early life reduces the risk of allergy in a dosedependent fashion, Plos One.