



## An introduction to pet allergy

This Factsheet will provide information on pet allergy with the main focus on cat and dog allergy. It includes possible signs and symptoms of pet allergy, advice on what to do if you suspect one and provides practical advice on avoiding pet allergens.

Cat and dog allergy is common, especially in people who also have allergic asthma or hay fever (1). It is also possible to be allergic to other types of animals including those with hair (fur), feathers or even scales, including:

- Rabbits
- Rodents such as guinea pigs, mice and hamsters
- Birds
- Horses
- Reptiles, such as iguanas
- In addition allergy to pet bedding (straw, shredded paper, moulds) is a possibility

## What causes pet allergy?

Pet allergy is caused by the protein in a pet's saliva, urine or dander (shed skin particles). Cats and dogs produce multiple proteins with the potential to cause a pet allergy. It is commonly thought that the hair causes symptoms, however it is the pet's dander that is mainly responsible. This is spread when pets shed their hair or feathers or groom themselves. Cat allergen is found on the skin and fur and is due to their sebaceous and salivary glands: when a cat licks itself the allergen is transferred

onto the hair. Dog allergen is found mainly in the hair, dander and saliva. The main source of allergen for rodents, such as mice, is in their urine.

Allergic signs and symptoms are seen in people whose immune system mistakenly recognises pet dander, saliva, or urine, as a harmful substance (allergen) and, as a result, produces IgE antibodies as a defence mechanism. On further exposure to that pet allergen, allergic signs and symptoms may be seen as an allergic reaction.

Pet hair itself can also act as a carrier of other airborne allergens: pollen, house dust mite and mould, which can cause allergic symptoms in individuals with hay fever, asthma, or eczema (2). Pet dander alone can also be an allergic trigger in these allergic conditions. Having a cat or dog allergy is also a risk factor for the development of allergic rhinitis or asthma (3).

## Exposure to pet dander in the environment

It is possible to develop an allergy to an animal or pet at any time, even where that animal has previously been a pet, or where a pet does not live in your home. Workplace exposure can occur for occupations such as vets, farmers, and laboratory scientists.

Pet allergens can also be found in schools and public places where they have been transferred on clothing and shoes from pet owners. Exposure to cat allergen in schools can exacerbate symptoms in asthmatic children with



For more help, contact the **Allergy UK helpline:**  
Monday to Friday, 9am to 5pm  
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## Key facts

Cat and dog allergy is common in people who also have allergic asthma or hay fever

Pet allergy is caused by the protein in a pet's saliva, urine or dander (shed skin particles)

Pet hair can also act as a carrier of other airborne allergens: pollen, house dust mite and mould which can cause symptoms in people with hay fever, asthma, or eczema





cat allergy.

Cat allergen is particularly persistent and can remain in homes long after a cat is no longer there. Pet dander can become airborne as hair is shed by grooming and collects on furniture and other surfaces.

Horse allergy is an important problem even in a young urban population. It causes a wide range of allergic symptoms from urticaria (rash) to respiratory problems. This type of allergen can also be carried on clothing with the dander being transferred.

## Hypo-allergenic pets

There is no such thing as a truly non-allergic dog or cat.

## Signs and symptoms of a pet allergy

Allergic symptoms of a pet allergy can be mild, moderate or severe, depending upon the individual's sensitivity and level of exposure. They can start within minutes of exposure or can be delayed (late phase response) and include:

- Sneezing
- Coughing
- Breathing difficulties
- Wheeze
- Watery, red, itchy eyes
- Skin rash/Hives
- Eczema flare
- Anaphylaxis

## Diagnosing a pet allergy

Identifying allergic triggers is an important part of managing an allergy.

If you suspect pet allergy it is important to discuss this with your GP or Health Professional, especially if you have other allergic conditions such as asthma, rhinitis or eczema.

Your GP/Health Professional may refer you for allergy testing to confirm or exclude a pet allergy.

This can be done by a blood test for specific IgE to the suspected animal and/or by skin prick testing. Referral to an allergy specialist may be needed.

Allergy testing before getting a pet for people without any symptoms of allergy is unhelpful. This is because subsequent exposure may still lead to allergy in a person who has previously not been allergic to pets.

## Practical advice on reducing animal dander exposure

Using a combination of the following pet allergen control measures may help to reduce symptoms and control existing allergic symptoms that are triggered by pet allergen.

### Inside the home:

- Keep pets outside if possible and always out of the bedroom
- Do not allow pets to sit or sleep on soft furnishings such as sofas, cushions, or beds
- Wash pet bedding regularly on a hot wash
- Remove horse-riding clothes before entering the home. Bag and wash them and shower after riding
- Using an air purifier may help reduce indoor airborne allergens

### Outside the home:

- Avoid contact with relevant animals
- If possible avoid visiting homes/areas where pets live
- If exposure is likely, try taking an antihistamine beforehand and use your prescribed preventative treatment for asthma / rhinitis. Avoid touching the pet or being in the same room



- Wash hands after touching or being licked by a pet
  - Washing and grooming pets regularly (by a non-allergic person) may help reduce allergen shedding.
3. In moderate to severe pet-induced allergy, allergen-specific immunotherapy may be appropriate. This requires initial GP assessment then referral to allergy/immunology specialist. It is unlikely to be NHS funded.

### By cleaning:

The aim of these recommendations are to reduce the amount of allergen in the air and environment, including on surfaces, soft and hard furnishings and the floor.

- Damp dust as often as possible to help keep pet dander (as well as dust mites and other allergens) to a minimum
- Clean carpets using a vacuum (but it must be one with a HEPA (high efficiency particulate air) filter (4) and wash hard floor surfaces with hot, soapy water
- Wash soft furnishings like duvet covers, curtains, cushions, soft toys on a hot wash cycle
- Super- heated steam cleaning has the potential to disrupt allergens so that they no longer cause symptoms
- Clean animal cages outside and replace any bedding or litter that has urine on it.

### Pet allergy management and treatment

1. Avoid the pet or animal where possible
2. If this is impossible or insufficient then medication to help alleviate the symptoms can be used after advice from a Health professional (GP or Pharmacist). Medicines include:

- Non-sedating antihistamines
- Antihistamine nasal sprays
- Eye drops
- Nasal sprays
- Asthma inhalers

### References

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### Clinical contributions

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