

Allergy to animals

This fact sheet has been written to provide useful information to anyone suffering from allergies to animals. It is focused primarily on cats, dogs and horses but there is also a brief mention of other pets.

We advise anyone who suffers symptoms of allergy when in contact with an animal to ask their GP if the symptoms are severe enough to warrant referral to an allergy clinic. In a small number of cases, particularly among asthma sufferers, there can be the risk of a severe asthma attack, and there have been very occasional reports of the most severe, life-threatening form of allergy (anaphylaxis). In such cases, avoidance of contact with the type of animal causing the problem is crucial, and referral to a specialist clinic is strongly advised.



Exposure to pets is difficult to avoid. It has been recommended that all people suffering from respiratory allergy should be tested for allergy to animals.

Throughout the text you will see brief medical references given in brackets. More complete references are published towards the end of this fact sheet.

What causes the problem?

If you have an allergy to an animal, it means you are hypersensitive to a substance produced by the animal. For example, in the case of cat allergy, the major cat allergen, known as *Fel d 1*, is a glycoprotein that is found on cat hair, having been produced by the sweat, salivary and anal glands. In the case of allergy to cat, dog or horse, skin flakes known as 'dander' also cause allergic reactions because they become merged with the animal's saliva or urine (Konradsen et al, 2014).

Larger animals such as horses are notorious for shedding dander in the form of dandruff. This means you must not only avoid contact with the animal itself, but also contact with clothing, riding equipment or accessories that have been near horses. Non-allergic persons who have been horse-riding may need to change out of their riding clothes elsewhere, and not come into the house wearing their riding clothes.

What are the symptoms of animal allergy?

If you are one of those people affected, pet allergens can trigger allergic symptoms such as sneezing, nose or eye itching and watering, itchy rashes, and sometimes severe wheezing. If you have asthma as well as pet

allergy, you may suffer asthma attacks and there may be a progressive deterioration in your lung function.

Many people mistake horse allergy for common hay fever as the symptoms can be similar and both are usually experienced outdoors.

How do you treat symptoms of animal allergy?

For those with persistent symptoms due to unavoidable regular exposure (with or without allergy to other airborne allergens such as house dust mites) the regular use of prescribed preventer inhalers, preventer nasal sprays and appropriate skin treatments is likely to be recommended.

For most people who don't come into regular contact with the animal causing the problem, antihistamine tablets may be enough to relieve any passing symptoms that occur. Special nasal sprays that are designed to prevent symptoms and reduce the irritation and swelling in the nose may be prescribed for those who are more severely or regularly affected. Many people also turn to decongestants to help combat a blocked nose. These can be found in tablet form, capsules or nasal sprays. Whilst over-the-counter decongestant nasal sprays may be helpful when used for occasional relief, a medical expert reviewing this fact sheet states that they are contra-indicated for longer term use because, although continuing to provide immediate relief, they can cause an overall worsening of the condition.

If you are at risk of a severe reaction (anaphylaxis), you are likely to be prescribed an adrenaline injection device. This must be carried with you at all times. The prescribing doctor should show you how and when to use it. It is important to do your best to avoid any contact with the type of animal to which you are allergic.

Treating symptoms

If allergy to animals is strongly suspected, and especially when allergy tests have confirmed it, you are likely to be prescribed an antihistamine. You may also be advised to use a preventer (steroid) inhaler and nasal spray starting the day before any unavoidable exposure, for example a planned visit to a home where you know there is a cat.

As stated above, if your doctor believes your symptoms could be very severe, you are likely to be prescribed adrenaline (also known as epinephrine). The adrenaline injectors prescribed in the UK at present are Emerade®, EpiPen® and Jext®. These injectors are easy to use and designed for self-administration. If you are prescribed an injector, it should be available at all times – with no exceptions. Medical attention should still be sought after use as symptoms may return after a short period and more than one injection of adrenaline may be required to control the reaction.

If you are prescribed an adrenaline injector, you will need to know how and when to use it. Ask your GP or allergist for advice. You can also find help on the website relevant to the injector you carry.

Emergency treatment of anaphylaxis – what injectors are available?

Pre-loaded adrenaline injection devices – Emerade®, EpiPen® or Jext® – are available on prescription for those thought to be at risk of a severe reaction.

Emerade® is the most recent single use adrenaline auto-injector to become available. It has a needle guard to protect against needle stick injury. Visit www.emerade-bausch.co.uk

EpiPen® has a spring-loaded concealed needle. The built-in needle protection keeps the needle covered during and after use. Visit www.epipen.co.uk.

Jext® has a locking needle shield which engages after use, designed to protect against needle injury. Visit www.jext.co.uk.

Animal allergy among laboratory workers

Unless special precautionary measures are taken, as many as 3-4 out of 10 newly-appointed animal lab workers will develop an animal allergy in the three years after their appointment (Botham et al, 1995). Out of 10 workers who develop a lab animal allergy, 8 will suffer nose and/or eye symptoms, 4 will have skin reactions and 3-4 will suffer asthma (Renström et al, 1994).

If you have allergic symptoms related to contact with lab animals, we recommend consultation with an occupational physician or allergist to as soon as possible. It's important not to delay this consultation, otherwise the problem may become worse and less responsive to treatment (Botham PA et al, 1995.).

On rare occasions, allergic workers have been known to suffer anaphylaxis due to bites from lab animals or from accidental puncture with hypodermic needles contaminated with animal allergens. Because these reactions can progress rapidly and become life-threatening, an occupational physician may recommend that you should carry injectable adrenaline (see above under "How do you treat symptoms?"). We would recommend that co-workers should be trained in emergency first aid, so that they can administer an adrenaline injection if required in an emergency.

In the UK, the Health & Safety Executive (HSE) Guidance Note EH76, published in 2002, offers examples of avoidance measures designed to reduce exposure to animal allergens.

In addition to environmental measures, personal protection equipment (for example filter masks and respirators) may be helpful in reducing or preventing symptoms in affected workers. However, because tiny amounts of allergen can sometimes trigger symptoms, this may not provide complete protection.

Desensitisation

A course of treatment known as specific immunotherapy, or desensitisation, has been successful in some people. But this approach is unlikely to be successful for people who come into regular contact with the problem animal, such as pet owners and people who are regularly exposed at their place of work. The treatment has been considered more suitable for people who are no longer in contact with animals regularly (Alvarez-Cuesta et al, 2006).

Desensitisation treatment may be suitable for people with very severe pet allergy who are not exposed at home but whose work involves visiting the general public. This is because of their susceptibility to suffer severe reactions, including asthma, when visiting pet-owning clients in their homes.

Helpful tips

If you are allergic to your pet, you may be tempted to find a new home for it. Before reaching this decision, it is important to be allergy tested because you may be reacting to something else in the environment such as dust or pollen. If you do find a new home for your pet, your symptoms may not improve significantly for several months (as pet proteins take 6-9 months to degrade biologically) unless you arrange for your carpets and upholstery to be rigorously cleaned – ideally a job for a professional.

If you keep a pet to which you are allergic, it may help to:

- Keep windows open whenever possible
- Clean rooms regularly
- Wash hands regularly
- Install hardwood floors instead of carpets
- Make sure your pet gets a weekly wash

When visiting someone with an animal that triggers your allergy, make sure you start any preventive medication in good time – one hour before your visit – and don't forget to carry prescribed medication with you. In our view, a polite request to remove the pets from the room before you arrive is perfectly acceptable, although you could still react to hair, saliva or skin flakes left on carpets and furniture.

A staff member at the Anaphylaxis Campaign, who was asked to review this information sheet, advised: "I always wash the clothes I am wearing immediately I get home if I have come into contact with an animal. If my children visit a friend's house with a pet I make sure they get changed as soon as they come in so they don't spread any animal hair/dander round the house. They also wash their hands as soon as they get in."

Other animals

Apart from cats, dogs and horses, there are other pets that produce dander and may trigger allergies for some people. These pets include rabbits, mice, hamsters, rats, gerbils and guinea pigs. For some people, birds may also trigger reactions.

'Hypoallergenic' dogs

It is a common misconception that 'hypoallergenic' dogs (Lockey, 2012) are safe for dog allergy sufferers. While it is true that some breeds produce many more allergens than others, there is no breed that does not produce dander or saliva and cannot therefore be classed as truly hypoallergenic. Shorter hair dogs may be preferable as they collect less dander and don't shed as frequently, however, they are still perfectly capable of producing an allergic reaction.

Substitutes for pet mammals

Some families find the idea of not keeping a pet mammal difficult. Children may be amused and bond with inanimate objects such as furbies and electronic (computer) pets, and persons allergic to some mammals may tolerate reptiles such as a tortoise. The Tortoise Trust charity offers advice on taking care of your tortoise.

http://www.tortoisetrust.org/Downloads/Taking_care_of_pet_tortoises_web.pdf

Links

Detailed information on anaphylaxis and its treatment can be found on our "Anaphylaxis the Facts" Factsheet: www.anaphylaxis.org.uk/wp-content/uploads/2015/06/Anaphylaxis-2015-version-8.pdf

References

Alvarez-Cuesta E et al. Standards for practical allergen-specific immunotherapy. *Allergy*. 2006;61 Suppl 82:1-20.

Botham PA et al. Allergy to laboratory animals etc. *Occup Environ Med* 1995;52:129-133.

Konradsen JR et al. Allergy to furry animals: New insights, diagnostic approaches, and challenges. *J Allergy Clin Immunol*, 2014 *In Press*.

Lockey, R., 2012. The myth of hypoallergenic dogs (and cats). *Journal of Allergy and Clinical Immunology*, 130(4) pp.910-911.

Renström A et al. Prospective study of laboratory-animal allergy. *Allergy* 1994;49:548-552.

Reviewers

The content of this Factsheet has been Peer Reviewed by **Dr Michael Radcliffe**, Consultant in Allergy Medicine, University College London Hospitals NHS Foundation Trust; and **Dr Paul Williams**, Consultant Clinical Immunologist, Cardiff & Vale University Health Board. Both reviewers sit on the Anaphylaxis Campaign's clinical advisory panel. Neither reports any conflicts of interest.

Disclaimer – The information provided in this Factsheet is given in good faith. Every effort has been taken to ensure accuracy. All patients are different, and specific cases need specific advice. There is no substitute for good medical advice provided by a medical professional.

About the Anaphylaxis Campaign: Supporting people with severe allergies

The Anaphylaxis Campaign is the only UK wide charity to exclusively meet the needs of the growing numbers of people at risk from severe allergic reactions (anaphylaxis) by providing information and support relating to foods and other triggers such as latex, drugs and insect stings. Our focus is on medical facts, food labelling, risk reduction and allergen management. The Campaign offers tailored services for individual, clinical professional and corporate members.

Visit our website www.anaphylaxis.org.uk and follow us on Twitter [@Anaphylaxiscoms](https://twitter.com/Anaphylaxiscoms).