

Pet Allergies

Pets produce dander (microscopic skin flakes that they shed), and the protein in it can cause severe allergic reactions for some people.

Pet dander is a little like dandruff flakes, only being smaller at around 2-3 microns in size it easily becomes airborne and inhaled.



Dander can cause allergic reactions for a long period and may indeed persist for many months after the pet has left the house.

Pet Allergens

The origin of the allergens is in the pet's urine, sweat and saliva. These excretions adhere to their skin, for example when they clean themselves, and thus part become of the dander they shed.

Cat dander is the most commonly inhaled allergen after house dust mite and pollen. Other types of pet, such as dogs, mice and guinea pigs, may similarly cause allergic reactions.

Because they are so light, pet allergens are widely distributed in the air, remaining airborne for several hours before settling, only to be easily stirred up into the air again.

Clearly, the best way of avoiding pet dander is to not have a pet! If you have a pet and are determined to keep it (and many of us love our pets too much to simply do without them), then there are various measures you can take to reduce your exposure, including controlling the pet's access to certain rooms and using an effective air purifier to neutralise the dander.

Pet allergies and your health

Pet allergies are known to play a role in:

- Asthma - around 40% of people with asthma are sensitive to cat allergen.
- Atopic dermatitis - characterised by a skin rash.
- Conjunctivitis - an inflammation of the linings of the eyelids.

- Rhinitis - a runny nose and sneezing.

People with a tendency to allergy (known as atopy), should avoid owning pets if possible. Unfortunately, some people who don't initially exhibit allergic reactions, can nevertheless develop symptoms after continued exposure.

Why pet dander causes an allergic reaction

Allergens usually enter the respiratory system through the nose. Mast cells in the airways release mediators, which trigger the allergy attack. This attack is an overreaction of the body's immune system to the invading allergens that have bonded with antibodies. Mast cells are one of the human body's principal defences against allergens and are found in connective tissue and mucous membranes. One of its biological functions is innate immunity including involvement in host defence mechanisms against parasitic infestations, tissue repair, etc.

Mast cells contain pockets of granules rich in histamine and heparin that cause allergy if triggered by invading allergens. In allergy sufferers Immunoglobulin E (IgE) antibodies present on the surface of mast cells trigger the release of histamine when allergens stick to these IgE antibodies.

It is the histamine which causes the allergic symptoms like swelling, redness, watery eyes, coughs and sneezing and also why the main drugs for allergy are called anti-histamines.

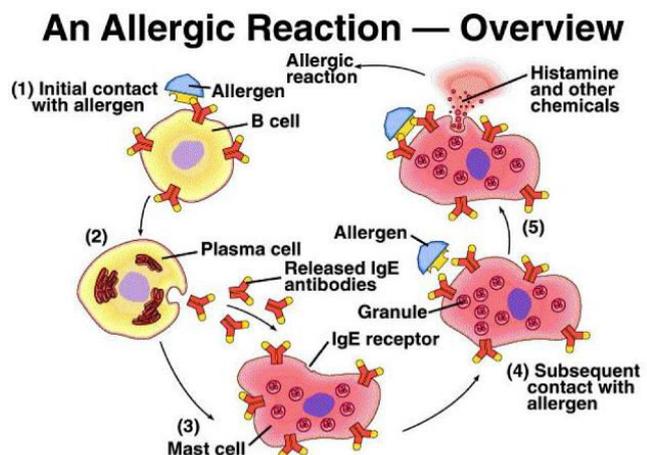
Pet dander is very 'sticky' and can stay in your hair, clothes and other belongings for long periods of time. This is why you can still suffer symptoms when you are away from the pet causing those symptoms.

The major cat related allergens are found in the cat's sweat and saliva and the major dog related allergen is found in its saliva.

What animals cause allergy problems?

A wide range of animals can cause allergic reactions including cats, dogs, birds, mice, rats, guinea pigs, rabbits, parrots and hamsters.

Male cats shed more allergen than females, and cats shed more allergen than dogs. Horses produce very powerful allergens and old mattresses stuffed with horsehair can produce symptoms. Snakes, lizards and other reptiles, and even insects, may shed dander-like skin particles into the air.



Perhaps the best pets for a pet allergy sufferer are fish, as they are not associated with allergy!

What about hypoallergenic dogs?



Miniature Bull Terrier

It is thought that all dog species produce similar amounts of allergen in their secretions.

Nevertheless, there are dozens of dog breeds that are said to be 'hypoallergenic'. Generally, dogs said to be hypoallergenic are either hairless or have short coats and thus thought not shed as much as other dogs.

However, a recent research study looked at the amount of allergen shed by different dog species and found that so-called hypoallergenic dogs do not shed significantly less allergen than other breeds.

Avoiding pet allergens

Before turning to technological or other solutions, careful allergen avoidance / environmental allergen control is important. For example:

- Do not let your pet roam the house at will as it will shed allergen-containing dander wherever it goes, and that dander persists for months, both in the air and on the surfaces it sticks to.
- Never allow your pet to enter the bedroom of the allergic person. The worst thing you can do is to allow the animal onto the bed itself.
- If practicable, confine your pet to an outdoors dry and comfortable shelter, or to just one well-ventilated room. This gives the person who suffers with the allergy the best chance of controlling their symptoms. If your pet is to be allowed controlled access to the house, the kitchen, with its lack of soft furnishings, is a good choice.
- If possible, and if you spot it in time, put a cat outdoors as soon as it starts washing itself because this is when allergen starts to spread.
- Reduce dander spreading by washing your pet regularly with an allergen shedding control shampoo, such as PET+, which claims to reduce allergen load by more than 85%.
- Cuddling your pet is part of the fun of ownership, and it is therapeutic for both of you, but be sure to thoroughly wash your hands afterwards otherwise you will in turn quickly spread any dander on your hands to surfaces and the surrounding air. Similarly, don't touch your face if your hands have dander on them as it will quickly reach your eyes and lungs.

- If your dog has hair that moults, ask someone to brush its coat regularly outside to remove excess hair and prevent it moulting in the house.
- Your carpets, curtains and soft furnishings become a reservoir of pet dander wherever your pet has been. So be sure to vacuum regularly with a vacuum that collects dander efficiently and doesn't leak it back into the atmosphere and damp dust daily (rather than using a dry duster).
- If practical, consider reducing soft furnishings and carpets.

And don't forget, are you sure pet allergen is really the cause of your allergy? It could be that house dust mite, mould or pollen is the real culprit. An allergy specialist will be able to offer an allergy test to pinpoint the true allergen.

Can an air cleaner help?

While numerous manufacturers of 'air cleaners' / 'air filters' claim to be able to clear pet dander from the air, they can only reduce, not eliminate, the problem, because:

- they can only clean the air that passes through them, and stratification, eddies and more means that some air in the room never passes through the filter
- they don't clean surfaces at all and it only takes a small disturbance to put settled dander back into the air

The only technology we know of that can neutralise pet dander allergens throughout the air in the room and on surfaces is Airora's 'Hydroxyl Cascade' technology.

You can learn more about why traditional air cleaners don't work well [here](#) and why Airora's unique technology does work [here](#).

