

# Allergic Dermatitis is one of the Most Common Medical Complaints That Veterinary Surgeons see in Surgery!

According to Professor Richard Halliwell, one of the leading experts in allergic dermatitis, around 21% of all visits to the veterinary surgery are associated with this condition. The incidence in dogs is estimated between 8 and 15% in the UK. Less is known about the cat population but the incidence does appear to be rising sharply. This article endeavours to examine what we do know about the condition and how pet owners can manage it with the minimum of distress to the pet.

## THE CONDITION

Atopic dermatitis or eczema is an inherited predisposition to developing allergic symptoms following repeated exposure to some otherwise harmless substance known as an allergen. Most dogs exhibit the first symptoms between the ages of 1 and 3 years. Cat eczema often goes unnoticed until fur appears in the house and the pet develops bald patches. The mean age of cats exhibiting the onset of the disease is between 4 and 5 years.

A "simplified" diagram of the changes in cell reactions that take place is shown in Figure 1! For the layman, the allergens, bacteria and yeast are inhaled, ingested or penetrate damaged skin and enter the body causing the protective white blood cells to be released. In the impaired immune system, the white cells destined to signal the destruction of the protective cells once their job is done are not released. The result: the reaction continues causing serious irritation, scratching lesions and other skin damage. The chewing, itching

and scratching can become habitual so the cycle is perpetuated.

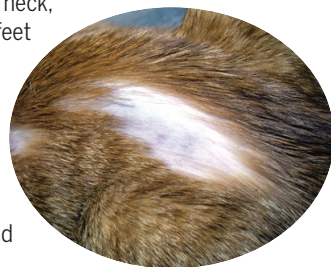
## THE SYMPTOMS

In dogs, the symptoms are as follows:

- Pruritis (perennial itching and licking) especially around the jaw, muzzle & chin: in the ears and on the neck, abdomen, groin & feet
- Alopecia (hair loss and bald patches)
- Lesions & pustules caused by secondary infections - Staphylococcus and Malassezia
- Hyperpigmentation (reddening and darkening of the skin)

In the cat:

- Pulled out tufts of hair
- Miliary dermatitis (crusty pustules)
- Eosinophilic plaques (hot spots)



## The effect of Breed

Some breeds are certainly more prone to eczema than others including Golden Retrievers, Most Terriers (especially West Highland & Cairn), Irish Setters, Lhasa Apsos, Dalmations, Bulldogs, Chinese Shar-Peis, Labradors, Bichon Frise, Springer Spaniels, Pugs but it can affect any breed or cross breed at any time. If both parents have a history of eczema, there is a 47% chance that the puppy will too so this may be one question you would like an answer to when you get a new pet.

Two recent studies revealed that two thirds of reported cases in cats were Siamese or Siamese cross suggesting that owners of this breed need to be vigilant. Other breeds need more research to be carried out.

Allergic reaction may be caused by parasites, food intolerances or environmental allergens:

- Linear granulomas (long thin red lesions)
- "Twitchy" skin
- Mutilated skin

## THE CAUSES

Allergic reaction may be caused by parasites, food intolerances or environmental allergens:

- \* Flea, mange or worm infestations
- \* Food especially beef or wheat or excessive salt & sugar
- \* Dustmites
- \* Pollen or mould
- \* Antibiotics
- \* Pesticides, paints & other chemicals
- \* Insect bites

Cat allergic reactions are more often prompted by a food allergen whilst dogs are more prone to the environmental allergens. Although the allergens are actually ingested or inhaled, the symptoms are skin reactions.

Many pets are sensitive to both and this is

why it can be extremely difficult to diagnose and treat correctly. To make matters worse, it may also be caused by thyroid deficiencies, diabetes and kidney malfunction not to mention Sarcoptic and Demodectic mange. This is why a proper check up by your veterinary surgeon is essential to make sure there is no other serious physiological disorders that urgently need treatment. If tests prove that organ function is satisfactory and there are no subcutaneous parasites, then an allergy diagnosis is the most probable.

## KEY POINT:

Dustmite can be controlled by using essential oil based sprays or laundry additives for pet bedding, mattresses, rugs and other soft furnishings that your pet lies on. e.g. Bio-Life HomeCleanse™ and FabriCleanse™. Bio-Life AirCleanse™ used twice daily can be used to get rid of inhaled allergens such as pollen, mould and dustmite particles.



ensure you have all the information that you can with you when you go to the surgery and please be patient! It may take 2-3 weeks but it will be worth it in the end.

## RELIEVING SYMPTOMS IN THE SHORT TERM

Antihistamines and steroids are often prescribed to relieve the symptoms along with antibiotics if the disease is advanced and the pet has secondary bacterial and yeast infections. However, long term use often results in reduced efficacy of antihistamines and steroids can generate serious side-effects from skin thinning and bruising, water retention, excessive weight gain, diabetes, bladder and kidney disorders not to mention an increase in the predisposition to infections.

Immunotherapy, repeat dosing with the offending allergens to stimulate the correct immune response, is widely used in some countries but this is a very long, slow process that can further exacerbate the symptoms in the short term. Controlling the allergens within the environment is by far the best approach.

## ENVIRONMENTAL ALLERGEN CONTROL

Dustmite can be controlled by using essential oil based sprays or laundry additives for pet bedding, mattresses, rugs and other soft furnishings that your pet lies on e.g. Bio-Life HomeCleanse™ and FabriCleanse™. Bio-Life AirCleanse™ used twice daily can be used to get rid of inhaled allergens such as pollen, mould and dustmite particles. PetalCleanse™ is recommended as a routine cleanser for pets after their daily walk during the April to September period. Trials in the Netherlands and the UK show significant reduction in the incidence of eczema with regular use.

If you pet is allergic to insects, always use an insect repellent spray on the base of the neck, tail and around the paws twice daily during the spring and summer. Avoid using pesticides and paints that are not environmentally friendly and of course, pet toiletries that contain fragrances, parabens, sulphates and other known irritants.

## THE HISTORY OF THE SYMPTOMS & THE PROCESS OF ELIMINATION

Assuming that an effective flea and worm programme is in place then the best indicator of cause is the history. Your veterinary surgeon will start with determining whether the allergic reaction is seasonal or aseasonal.

### SEASONAL ALLERGENS

- Pollen
- Mould
- Insects
- Hormone changes

### ASEASONAL ALLERGENS

- Food
- Dustmite
- Antibiotics
- Paints, pesticides & pollutants

Pollen allergic pets exhibit the symptoms in the Spring and again in the Autumn. If your dog has had a course of antibiotics, you will know and so will your veterinary surgeon. If you or your neighbour have recently painted inside or out, it should not be difficult to check.

That leaves the difficult ones --- foods and dustmites and these are easy to confuse. Allergy testing can confirm dustmite reactions but foods are so varied, it is almost impossible to test them all. However, food intolerant cats and dogs will respond to antibiotic treatment short term whereas dustmite allergic pets will not. Alternatively, the veterinary surgeon may suggest an exclusion diet which is composed of a protein and carbohydrate that they are not normally fed. If the cat or dog does not respond within 10 days then it is safe to assume that it is dustmite.

The key to a proper diagnosis:

Allergy testing can confirm dustmite reactions but foods are so varied, it is almost impossible to test them all.



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For further help and advice on all aspects of allergic dermatitis, please do not hesitate to call our Allergy Helpline on 01608 686626, open 8 am to 8 pm, 7 days per week or visit the website [www.biolife-international.co.uk](http://www.biolife-international.co.uk) Knowledge is power when you are dealing with chronic, long term conditions!

## MANAGING THE CONDITION: FOOD INTOLERANCE

Hypoallergenic diets incorporate sources of protein and energy that the cat or dog has not previously been exposed to. Since beef, dairy and wheat account for 80% of food intolerances in cats and dogs, they are usually based on novel proteins such as venison, egg, duck, kangaroo and fish. Carbohydrate sources include potatoes, peas, yams, pumpkin or rice. In extreme cases, your veterinary surgeon will recommend home made food and can assist you in the choice of ingredients.

The diet is maintained for around 6 weeks at which point, you can slowly re-introduce the offending items once or twice per week so as to provide a more varied diet. This is especially important in cats because they really do not like to eat the same things every day!!

In addition to hypoallergenic or home cooked foods, pet owners are advised to select carefully treats that do not contain additives. Bones are perhaps the best treat for your dog and many cat food manufacturers now offer wheat, maize and soy free biscuits.

Omega-3 and Omega-6 supplements help to improve the overall health of the skin because they are anti-inflammatory and anti-oxidative agents with virtually no known side-effects.

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Figure 1: A "simplified" diagram of the process (Halliwell: EJCAP Vol 19: Issue 3: Dec. 2009)