



# Allergic Skin Disease

An Information Leaflet from Henley Vets



## What is allergic skin disease?

Allergic skin disease is when a certain particle (called an allergen) triggers an overactive reaction within the immune system which causes areas of the skin and ears to become itchy and inflamed. Allergens may trigger this reaction by being ingested, inhaled or by contacting the skin. Certain breeds are more susceptible to having the disease including West Highland White Terriers, Labradors and Jack Russell Terriers.

## Typical signs of allergic skin disease

Usually animals will have itchy and inflamed skin. The face, ears, feet, armpits, groin and tummy are the most commonly affected areas. Once the allergic reaction is triggered, bacteria and yeast which normally live on the skin have a chance to overgrow and cause an infection, which worsens the skin irritation. The lining of ear canals is very similar to skin, which is why the ears can be affected by allergic skin disease in the same way as skin can be, either at the same time as the skin or on their own.

## Possible allergens

Pollens, Trees, Grasses, Weeds  
Mites, Fleas, Moulds,  
Protein in food e.g. chicken, beef, pork  
Carbohydrate in food e.g. rice, wheat

## How we manage itchy animals

There are a number of causes of itchiness in animals, some of which can be made worse by treatment for allergies. It is therefore important that non-allergic causes of itchiness are ruled out before we begin a full allergic skin disease work-up. Causes of itchiness that can cause itchiness without an allergy include:

Fleas  
Mites e.g. sarcoptic (fox) mange or demodex mange  
Lice  
Skin infection- bacterial/yeast/ringworm  
Contact allergy e.g. to washing powder  
Insect bite hypersensitivity

Examples of tests to check for these things include scraping the skin and plucking hairs to look for lice and mites or culturing hairs to check for Ringworm. Your vet will advise you which is most appropriate once they've examined your pet.

Fleas must always be ruled out as this is the most common cause of itchiness in animals. We will do this by treating all of the animals in the household for fleas and spraying the house with anti-flea house spray.

Having ruled out the non-allergy-related causes of itchiness, we will suggest investigations for allergic skin disease.

## Ways we can try to work out what is causing an allergic skin reaction

### Investigating food as a cause

Food is investigated first as a possible cause of allergic skin disease. Both protein (e.g. chicken, beef, pork) or carbohydrate (e.g. wheat, rice, gluten) can cause allergic skin disease. We will ask you what the animal has been fed in the past. We might then suggest that we give the animal a novel source of both protein and carbohydrate, which the animal has rarely/never been fed before e.g. white fish with potato, for a period of 6-8 weeks as a 'dietary trial'.

It is crucial that the animal is fed ONLY this and nothing else for 6-8 week period. Treats or titbits are not allowed and if you need to treat the animal, you should give them some of their daily allowance of the selected 'dietary trial' food. We may also ask you to stop any supplements that the animal is having as they might contain some protein or carbohydrate flavourings.

If there is an improvement in the animal's skin after the 6-8 week 'dietary trial' period, we may then conclude that food is contributing to the allergic skin disease. We can then go on to 'test feed' the animal different proteins and carbohydrates one by one to work out which are safe to feed and which are not. We would then find a diet that didn't contain these foodstuffs that trigger an allergic reaction and formulate a long term dietary plan.

### Investigating other causes of allergic skin disease

There are two ways we can investigate non-food causes of allergic skin disease:

- Blood test
- Intradermal skin testing - the animal is sedated and an area of skin over the side of their body is clipped. Small amounts of about 50-60 different allergens are then injected into the skin in a grid-like arrangement. Any injection that causes a significant skin reaction around it indicates that that particular allergen is contributing to the allergic skin disease. This test is only performed by specialist skin experts but we can refer any animal to them for this procedure if we wish.

Your vet can talk to you about these two options and which is most suitable for your pet. It is important to be aware that 10% of dogs do not have a positive reaction on either test, even if they have allergic skin disease.



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## Immunotherapy

If a blood or intradermal skin test establishes that an allergen is contributing towards an animal's skin disease, we have the option of beginning 'immunotherapy'. This is when a unique vaccine is created for an animal that contains small amounts of the allergens that they are allergic to. The vaccine is then regularly given by injection in a regime to try to desensitise the animal to what they are allergic to. The regime involves injections every other day to start with, and the frequency is then gradually reduced down to monthly injections. The vaccine can take 2-10 months before a beneficial response is seen. About 25% dogs can have their skin disease controlled completely by immunotherapy alone and these dogs then require immunotherapy for life to maintain the beneficial effect. About 40% have a partial improvement and require other forms of medication or management to completely control their skin disease. The remaining 35% of animals show no improvement at all.

## Other treatment options

### Steroids

Steroids are widely used for the treatment of itchy skin as they are very effective in controlling itchiness and inflammation. Steroids can cause side effects if given at high doses or over long periods of time, which include increased drinking, urination and hunger, thinning of the skin, reduced immunity, liver damage and the development of diabetes or Cushings. However, steroids can be used safely for long periods of time if low doses are given and monitoring is performed regularly with blood and urine checks. A steroid spray has also recently become available which is applied to the skin and can help reduce itchiness whilst avoiding the majority of the side effects of steroid tablets.

### Cyclosporin (Atopica)

This is another potent drug which is generally very effective at controlling itching. A 4-week trial of daily treatment is usually necessary initially, and this regime is then adjusted appropriately. Dogs may vomit when they first start taking the medication but this is usually only temporary. Other side effects seen in some dogs are gum problems and warty skin growths but these these problems tend to reverse upon withdrawal.

### Anti-histamines

These can help to reduce itchiness in about 30% dogs and 40% cats. There are several different anti-histamines available which can be tried. They are generally well tolerated, but may cause drowsiness in some patients. They may be given alongside a fatty acid supplement as the two substances can help each other to work.

### Shampoos

There are a variety of shampoos available for pets, each designed for different types of skin problems. Shampoos can help to control infection on the surface of the skin, combat dandruff and they can also have a soothing effect.

### Fatty Acid Supplements

Studies have shown that fatty acid supplements can help to relieve allergic itchiness in about 20% patients. They can help to reduce the dose of drugs with side effects that is required e.g. steroids. They also commonly improve the condition of the skin and coat. It can take 2-3 months before the benefits are seen.

## Why we use antibacterial medications or antibiotics as part of the treatment

Skin and ear infections are commonly seen in animals with allergic skin disease and require treatment if present. Treating the infection will often cause considerable reduction in the animal's itchiness. Once the infection is under control, we will often advise that the ears and skin are kept clean using ear cleaner and shampoo respectively.

## General management advice

If we can reduce the amount of exposure an animal has to the allergen that triggers their allergy, this will help to prevent allergic skin disease. Many allergens are difficult to avoid completely e.g. house dust mites, but there are some ways that we can try and reduce exposure, which can result in some improvement. For example:

House dust mite- prevent access to bedrooms, use bedding specifically designed to reduce contact to dust allergens, spray the house with Indorex household spray every 6 months.

- Storage mite- wash animal's face after eating, give wet rather than dry food if possible, store dry food in airtight containers and throw away the crumbs rather than feeding them to the animal.
- Pollen/grass/trees/plants- avoid areas where the offending allergen is found, wash your animal after walking them to rinse the allergen off the skin.

## Long term outlook

Unfortunately, allergic skin disease cannot be cured, but it can usually be well controlled with minimal risk or problems. Both owner and vet must work as a team and have regular contact in order to achieve and maintain the best possible control of the disease.