

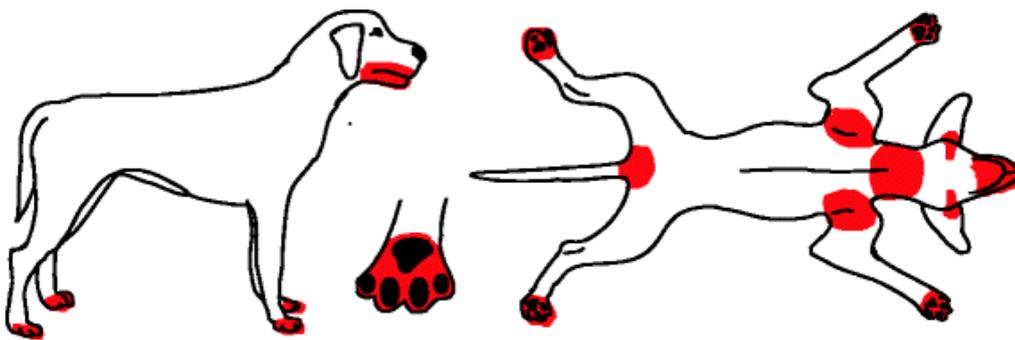
## INFORMATION ON ATOPIC DERMATITIS

### What is Atopic dermatitis?

Atopic dermatitis is a common **genetically programmed itchy skin disease**, in which an animal develops allergies to food ingredients and/or particles in the environment, most commonly pollens & dust. Some breeds of dogs are commonly affected by this disease; for example: West Highland White Terriers, Labradors and Golden Retrievers, French bulldogs, Pugs, Staffordshire bull terriers, etc.

### What are the signs of this disease?

Usually, animals with atopic dermatitis have **itchy and inflamed skin**. The face, ears, feet, armpits and tummy are the most commonly affected areas. Often the affected dogs will also get **secondary skin & ear infections** either caused by bacteria or yeast.



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### How do you treat atopic dermatitis?

Atopic dermatitis is a disease that **cannot be cured but can be controlled**. Usually, pets affected by this disease require some form of treatment for life. The treatment required depends on the individual animal and a treatment plan will be specially designed for your pet based on their specific needs.

### Can we find out what my pet is allergic to?



In the majority of the cases, yes. The first step will be **ruling out a food allergy** by performing a **strict diet trial** (see diet trial information sheet for more details). If food allergy is ruled out, then we know that the pet has an allergy to particles in the environment. The options of further allergy testing will be discussed with you. **Allergy testing for environmental allergies** can be performed by a skin test or a blood test. Some dogs will have reactions on one test, but not the other, and some dogs will not have any positive reactions on either test. This does not mean that they do not have an allergy, it just means we may not yet have the technology to test the right things in the right way. These cases are called 'atopic-like dermatitis' or 'intrinsic atopic dermatitis'; the only main difference with the 'normal' atopic dermatitis cases is that a hyposensitisation vaccine can't be part of the treatment plan (see later).

### What is the skin test?



When a skin test is performed **your pet will be sedated**. A patch of hair will be clipped on your pet's side and about **50 different allergens** will be injected into the skin. We then wait for 15 minutes to see if the skin reacts to any of the injections. The reactions look like insect bites (small red raised lumps). After the test is complete, your pet will be able to go home with you the same day. We will have a chat with you after the test about the results.

### Are there any risks with the skin test?

There is a small risk with the sedation and there is also a small risk of anaphylaxis (an allergic reaction). These risks are very small and will be discussed with you before the test, so you are aware of them.

### Do we need to have an allergy test?

Identifying the specific agent your pet is allergic to can have many benefits:

- It will enable you to **avoid some allergens**.
- We will be able to **make up a "vaccination" for your pet based on these results** to try and **desensitize** them to what they are allergic to. This treatment is generally a safe long-term option for atopic dermatitis, but it does not work for every dog.

### What treatment options are available for my pet?

Atopic dermatitis is caused by a combination of different factors, and it is best managed in the **long-term using a multimodal treatment strategy** aimed at improving all factors involved in the disease development, which are:

- **Poor skin barrier function** (dry and 'leaky' skin)
- **Skin inflammation and itchiness**
- **Hypersensitivity reaction to environmental allergens**
- **Predisposition to flare factors** such as secondary infections, flea bites or, in some cases, food ingredients

There are many different treatment options available within each group, and not every treatment works for every pet. Ultimately, the treatment regime will be tailored to your pet's specific requirements and lifestyle. Generally, we will try to use the least potent drugs possible to control your pet's skin disease. The various treatment options that are available are listed below.

### Improving skin barrier function

- **Diets enriched with fatty acid or fatty acid supplementation** – Studies have shown that fatty acid supplements relieve allergic itch in some dogs without adding other drugs. They also allow lower doses of steroids to be used and can potentiate the action of antihistamines. It can take 2- 3 months before the benefits are seen.
- **Bathing**– Although bathing is not always easy, it is helpful in removing allergens from the skin surface. Some shampoos and conditioners contain ingredients to soothe and moisturize the skin such as aloe vera and oatmeal. Shampoos are chosen depending on the individual's requirements.

### Anti-inflammatory/anti-itch treatments

- **Oral corticosteroids ('steroids')** – These drugs are widely used for the treatment of atopic dermatitis and they are very **effective at controlling itching and scratching**, but they are also one of the most potent drugs available. Steroids are usually very effective, often within a few days you will notice an improvement in your pet's condition. Potential side effects, particularly at high doses, when injected frequently, when given daily, or over a long period of time, include excessive drinking, excessive urination, excessive hunger, liver damage and the development of diabetes. In general, we will reserve steroids to manage itch and skin inflammation during the diet trial, and to **manage occasional flare ups** which may occur from time to time even if your pet is treated with other medications. However, some dogs do not respond to any of the other anti-itch treatments available and then steroids are required. These drugs can be used safely, even for long periods of time, for example when used at low doses given every other day. If corticosteroids are needed on an ongoing basis, regular monitoring is required and involves blood and urine tests.
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- **Topical steroids** – for example, steroid sprays are licensed for use in the dog. This is thought to have minimal systemic side effects when used correctly and may be used in conjunction with other treatments, rather than as a sole therapy.
  - **Ciclosporin (capsules or liquid formulation)** - This is another potent drug, which is generally very effective at controlling your pet's itching. However, **it can take up to 4-6 weeks** before the maximum effects are seen, unlike steroids when a benefit can be seen within a few days. This drug can often cause dogs to vomit or to develop diarrhoea when they first start taking the medication, but this is usually temporary and improves within the first week. To minimise this side effect, we advise the drug is given with food. Other side effects, seen in some dogs, are gum problems and warty skin growths after several weeks. These problems appear to be reversible upon withdrawal. Close monitoring during treatment is required. The cost of ciclosporin can be prohibitive. Once the itching is controlled, the frequency at which the drug is administered is slowly reduced, and in some dogs, it is possible to reduce the frequency of administration to twice a week.

- **Oclacitinib (APOQUEL tablets)** – This is another option which may be effective in controlling your pet’s itching. This drug acts by blocking the itch receptors and thereby inhibits molecules which promote itchiness in your pet. **It may work within 24 hours** to relieve symptoms and may be given with or without food. Side effects are generally mild and include vomiting and diarrhoea. We may start your pet on twice daily medication for a few weeks but will then reduce this down to once daily treatment. Regular blood and urine analysis are also recommended if long-term treatment with this drug is required.
- **Lokivetmab (Cytopoint injection)** - Cytopoint is a monoclonal antibody treatment option. It targets an itch-inducing molecule in the body and rapidly reduces itchiness, sometimes within hours. It is an **injection, given under the skin**, and can be repeated every 4 weeks if needed, depending on your dog’s degree of itchiness. There are minimal side effects and Cytopoint is safe to use in dogs of any age. It can be used in combination with many other medications, and in dogs with other diseases.
- **Antihistamines** – These have a small and limited effect at controlling the acute itch, but they can be useful to reduce the amount of other treatment required. Generally, they are well tolerated, although sometimes sedation can be seen. If this is noticed let your vet know as we can either change the antihistamine or reduce the dose. Antihistamines are often given with fatty acid supplements as they can help each other to work.

### Reducing the hypersensitivity reaction to environmental allergens

- **Avoidance of the allergen** – It is wonderful when this is possible, but often dust and pollens are very hard to avoid, even in the cleanest of houses. Sometimes it is possible to reduce the exposure which may result in some improvement. Examples include:
  - Preventing access to bedrooms for pets allergic to house dust mites; the highest concentration of house dust mites is in the bedroom
  - Check that your vacuum cleaner is fitted with a house dust mite filter
  - Using bedding specifically designed to reduce contact to dust allergens (e.g. VetBED GOLD)
  - Spraying your house with INDOREX (flea spray) will lower house dust mite numbers for a 6-month period
  - Washing your pet after walking on grass – this can help to reduce the amount of pollen in contact with the skin and reduce itching in some dogs

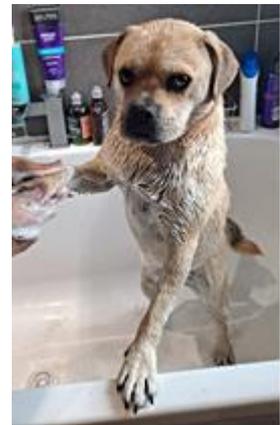
- **Hyposensitisation vaccine (immunotherapy)** – This treatment aims to **reduce the overreacting response to the environmental allergens** to which your pet is allergic to by a series of injections containing these allergens. This treatment is specially ordered for your pet **based on its allergy test results**. This is one of the safest long-term treatments and is **effective in up to 70% of patients but may take up to 12 months to take effect**. In some cases, the vaccine may only reduce the amount of additional medication required, but in others the vaccine can be effective as the only treatment. In most cases, treatment will need to be continued for life. Anaphylaxis (allergic reaction) is a rare side effect of this treatment, for this reason we advise



that the first 6 injections are given by your vet. You should wait at the vets for 30 minutes after the first 6 injections to ensure no adverse reaction occurs. The option of performing the first 6 injections in one day during a so-called 'rush' induction protocol will also be discussed with you.

### Management of flare factors

- **Flea control** – as flea bites, even if your dog is not allergic to them, can significantly raise the level of itch, it is important for a **strict flea control program** to be in place in almost all cases of atopic dermatitis.
- **Treatment or prevention of secondary infections** – Skin and ear infections are commonly seen with atopic dermatitis and require treatment if present. Treating the infection will often give some relief to your pet as infections generally tend to increase the itchiness, making your pet more uncomfortable. To try and prevent recurrence of these infections we will often recommend the **regular use of antiseptic shampoos and ear cleaners**.
- **Food** – some dogs with atopic dermatitis can have a combination of food and environmental allergies. If this is the case for your pet, keeping a strict diet and avoiding the ingredients known to cause a flare up will help to maintain the overall skin condition and itch level under control.



**Atopic dermatitis cannot be cured, but it can usually be controlled well with a minimal risk of problems. We will work with you to get the best outcome for your dog in the long term.**