

ATOPIC DERMATITIS

This information is not exhaustive – it is intended to provide an overview of a common but complex skin condition in dogs. Dermatology is an ever-changing field of veterinary medicine and sometimes new information becomes available regarding the disease or treatments.

Therefore, for further information, please check the website links at the bottom and speak to one of the vets.



Atopic dermatitis is an itchy, inflammatory skin condition caused by an exaggerated response to normal allergens, such as pollen, dust mites and food. In simple terms, an atopic dog is an itchy dog with skin allergies. Some dogs will have signs localised to just one part of the body, for example the ears or feet. The condition is lifelong, usually setting in between 6 months and 3 years of age.



WHAT CAUSES SKIN ALLERGIES?

Certain breeds appear predisposed to atopic dermatitis, for example the West Highland White Terrier, Labrador, Bulldog and Yorkshire Terrier.

The most common allergens (things that trigger the allergic response) are house dust mites, flea saliva and a variety of grass or tree pollens. These are absorbed through the skin. The signs may persist all year round, especially if house dust mites are involved. If pollens are involved then signs may be worse in summer or only occur during this time.

It is believed that affected dogs have defects in their natural skin barrier, helping the absorption. This is coupled with an exaggerated response by the body to the allergen in affected dogs. This means dogs with atopic dermatitis are more susceptible to allergens and tend to over-react to them.

HOW IS THE DIAGNOSIS MADE?

Unfortunately, there is no one single test for atopic dermatitis. It is a 'diagnosis of exclusion' – therefore all other potential causes of itchy, inflamed skin must be ruled out before we can diagnose atopic dermatitis.

- **Skin scrapes and/or hair plucks** may be performed to check for parasites such as mites. Sometimes, treatment for these (with a spot-on product such as Advocate) may be initiated as a trial to help rule out parasites as a cause of the itch.
- Food allergy is uncommon in dogs, and is difficult to prove. The only reliable way to diagnose food allergy is via a **food trial**. The dog must be fed on ONE specific diet (often a prescription diet with a single protein such as venison and green pea, or hydrolysed protein such as Hills z/d ultra) for 8 weeks (ideally something they have never eaten before), with no other treats or supplements. If the skin problems disappear, we then re-introduce the previous food to see if it recurs, thus confirming the diagnosis.
- Bacterial infections are common in itchy dogs, because they introduce bacteria into the inflamed skin when licking and scratching, and because their natural skin barrier tends to be weakened. If present, these must be treated with **antibiotics** before we can attribute the itch to atopic dermatitis, as infections themselves are extremely itchy.

Once all of these things have been ruled out, a presumptive diagnosis can be supported by **allergy testing**. We can perform a blood test which lists the allergens your dog is reacting to – usually flea saliva, house dust mites or pollens (or a combination of these). In some cases an intra-dermal test is performed; samples of allergen are injected under the skin to see if there is a reaction. A specialist dermatologist will perform this test.

It is important to note that atopic dermatitis is a lifelong condition that cannot be cured. With successful appropriate treatment the symptoms can be controlled, but 'flare-ups' are to be expected. The aim of management is to keep the dog as comfortable as possible, and reduce the frequency and severity of these flare-ups.

WHAT CAN I DO TO CONTROL THE SIGNS?

Ideally, **avoidance of the allergens!** Here are some ways you can reduce exposure to various allergens:

- Do not allow your dog in the bedroom – this is where most dust mites live. Use hypoallergenic mattresses and bedding throughout the house.
- Wash bedding (human and dog) on a hot wash regularly to remove mites.
- Avoid stuffed toys, as these can harbour dust mites. Stick to rubber toys where possible; if using stuffed toys then freeze them for 24 hours once a month to kill mites).
- Use a vacuum cleaner with a high efficiency filter.
- Keep lawns cut short, and rinse the dog with clean warm water after walks through grass or woods to physically remove allergens from their coat.
- Wipe your dog's feet with a wet cloth after walks
- If your dog has a known food allergy, then avoid all foods known to contain the ingredient.
- Try to avoid purchasing very large bags of dry dog food – if kept for a long time the food can attract storage mites, which are generally harmless but can trigger a response in some atopic dogs.
- You may find it helpful to wipe your dog's face with a wet cloth after they have eaten – this will reduce exposure to storage mites in dry food.

Strict **flea control** is sensible in any dog with atopic dermatitis. Many of them show an exaggerated response to flea saliva and even one flea bite may be enough to trigger an allergic response, even if the dog does not actually have fleas. Regular flea prevention is essential, for example Frontline spot-on every 8 weeks.

Supplementation of omega-3 and 6 **fish oils** has been shown to help reduce symptoms in dogs with atopic dermatitis. There are numerous commercial products available, or you could give a few drops of salmon oil on each meal. The oils help replenish the skin's natural defensive barrier, which is deficient in affected dogs.

WHAT TREATMENT IS NEEDED?

There are a number of medications used to treat atopic dermatitis:

- Anti-itch medications
- Immunotherapy
- Antibiotics
- Shampoos

The combination of treatments used will vary according to each individual dog, their lifestyle and the severity of their condition. The vet will discuss with you the various options, and sometimes several combinations may be tried before finding a regime that both you and your dog are happy with.

Anti-itch medications

Atopic dermatitis is itchy. When we cannot avoid the cause of the itch, then the only option we have is to control it. Itchy dogs will continue to chew or scratch themselves until they make their skin even sorer, and may introduce infection into the damaged skin. Itchy dogs are also extremely uncomfortable – they may go off their food or lose interest in playing.

There are a number of different medications that can control itchiness. None is perfect, and all may have side effects. What works for one dog may not work for another, so sometimes a treatment trial is needed.

Steroids

Steroids are extremely potent anti-itch medications and work for almost all itchy dogs. Steroids are usually given as an injection (lasting from 24 hours up to 7 days) or as daily tablets.

However, steroids do cause a number of side effects. In the short term, they will increase thirst and appetite, so dogs may eat or drink (and therefore wee) more – however, when used for short periods steroids are generally quite safe. If given long-term, however, side effects are more likely. The long-term increase in appetite can result in weight gain. There is also a risk of diabetes if steroids are given over long periods. Steroids also suppress the immune system, potentially increasing the risk of picking up infections. Because of these side effects, we try to reserve steroids for the short-term control of flare-ups, or where other options have failed.



There is also a spray-on steroid preparation available (Cortavance), which is designed to reduce the impact of these side effects by limiting absorption into the body. This can be a very useful method of giving steroids straight onto the skin, where they are most needed.

Anti-histamines

Hayfever medications such as Piriton or Atarax, can be very useful in managing itchiness in some dogs. Being human medications, we have to use these 'off-licence': this means the product has not been specifically tested on dogs. However, as there is no dog equivalent of Piriton we use it regularly and side effects are extremely rare. The main side effect of Piriton is drowsiness.



Cyclosporin (Atopica)

Atopica is an 'immunomodulatory' drug, meaning it targets the cells involved in the allergic response and suppresses their effects. Compared to steroids and anti-histamines, Atopica is costly; however, it works extremely well at controlling the symptoms of atopic dermatitis and most dogs respond within 2-3 weeks.



After starting on a standard dose, the dose is tapered gradually until we are giving the lowest dose that is effective. Some dogs do not require daily treatment to keep them comfortable, but it does depend on the individual.

Side effects with Atopica are uncommon and usually mild. Approximately one third of dogs will experience some tummy upset when starting the medication, but this is usually temporary and subsides within a few days. Vaccinations cannot be given while on Atopica because it will stop them from working; therefore it is important to note that Atopica must be stopped for 2 weeks before and after booster injections.

Oclacitinib (Apoquel)

Apoquel is a relatively new medication which seems very effective at reducing itch associated with allergic dermatitis without the side effects seen with steroids. It is only available in limited supplies at the moment but we expect to see it being very useful for many itchy dogs.

Immunotherapy

Immunotherapy involves repeatedly giving small amounts of the relevant allergen(s) to the dog as an injection, in order to reduce their reaction to it over time. The injections are specially formulated for each individual dog by the laboratory, using the information obtained from allergy tests (see above).



At first, the injections are given very frequently (for example, every other day) but as time goes on the interval between injections is increased. Many dogs only require a monthly injection once the immunotherapy has taken effect, but

they will require these injections for life if they are working. The injections can be administered by the practice, or you may feel comfortable giving them at home.

It is estimated that up to 70-80% of dogs improve with immunotherapy, but it is a slow process. It is recommended that you keep up with treatment for 9 months before deciding that it is or isn't working.

Antibiotics

Antibiotics are not used routinely in the long-term management of atopic dermatitis. However, during flare-ups in very itchy dogs it is common for secondary infection to set in; in these cases, courses of antibiotics are needed to eliminate the infection. Conversely, antibacterial shampoos are a very useful form of infection control to be used in the long-term (see below).

Shampoos



Medicated baths can work to keep your dog comfortable in a number of ways. Firstly, bathing and rinsing will physically remove allergens from the coat to limit their absorption. Many shampoos (for example Malaseb) contain antibacterial agents, so if they are used regularly they can keep secondary skin infections under control before they become severe enough to need antibiotics. Lastly, many shampoos are soothing to inflamed, itchy skin.

Most shampoos on the market are used by lathering them into a wet coat, leaving for ten minutes, then rinsing. It is vital to read the instructions provided and adhere to them; for example, leaving shampoo on for a minute or two rather than the full ten minutes will dramatically reduce its effectiveness, and you may end up wasting time and money on medicated baths that don't seem to be working very well!

The frequency with which you need to use shampoos varies. During a flare-up we will often recommend shampooing every 2-3 days, but when your dog is comfortable you may only need to apply it once every 1-2 weeks.

Treatment summary (note - may vary according to the individual)

Long-term maintenance:

- Allergen avoidance as best as you can.
- Anti-histamines, if effective, can be given as needed.
- Fish oil supplementation in diet.
- Regular use of shampoos.
- Stringent flea control, eg Frontline spot-on every 8 weeks.
- Atopica or Apoquel if suitable.

During a flare-up:

- May need to increase doses of existing medications such as Piriton, Apoquel or Atopica, or perform more frequent baths.
- Steroids / Apoquel may be used for short-term control of severe itch.
- Antibiotics may be needed if a skin infection has developed on top of the itch and sore skin.

Some further information can be found online:

<http://atopica.com>

www.itchfree.co.uk

Feel free to contact the practice on 01782 522100 if you have any questions.