

Atopy

Atopy is a fairly common condition in dogs. Animals with atopy are allergic to substances in the environment that are inhaled, ingested or absorbed through the skin. The resulting allergic reaction is seen as extreme itchiness of the dog's skin.

The main allergens involved are pollens (grasses, weeds, and trees), moulds, and house dust mites. These allergens are not at all harmful to non-atopic dogs.

Atopy can arise in any breed, and in crossbreed dogs. Certain breeds are particularly susceptible to the condition, particularly West Highland White Terriers, Labradors, and Golden Retrievers.

What are the signs of atopy?

The condition is usually first seen in animals between 1 and 3 years of age, however it may develop as late as 7 years. Initially atopy may be seasonal (often occurring only during the spring/ summer when pollen counts are high; in the autumn when there is leaf litter and mould on the ground; or in winter when dogs are indoors more and have more contact with house dust mites), but most affected dogs eventually suffer from signs all year round.

The principal sign of atopy is intense itchiness. The areas most affected are the face, paws, groin and ears. Some dogs are affected in all of these areas; other animals tend to develop signs at just one of these sites. In addition to scratching and chewing





the itchy parts, dogs often lick the affected areas or rub them along the carpet.

Initially the skin will not look abnormal, or may just appear slightly reddened. However, over time skin changes and infections develop as a result of all of the scratching. For example, you may notice:

- Hair loss (this can be extensive if the condition is left untreated)
- Bacterial infection of the skin (often causing spots, bumps, circles of hair loss)
- Unpleasant smell to the skin (often indicating yeast infections)
- Thickening and wrinkling of the skin
- Darkening of the skin (hyperpigmentation)
- Ear infections (redness, itchiness, discharge from the ears)
- Cysts, redness and swelling between the toes

How is atopy diagnosed?

There are many skin diseases that cause itching and they can all look rather similar on examination of the affected dog. To reach a diagnosis your vet will consider the age and breed of your dog, the pattern of the skin lesions and your description of their development. Your vet may decide to take skin scrapings and/ or





blood tests to look for the presence of mites, if mange is suspected. In rare cases, biopsies are taken under anaesthetic to rule out unusual causes of skin disease.

As discussed above, many atopic animals present with skin infections as a result of chronic scratching. Skin samples can be taken to find out if infection is present, and to gain more information as to how best to treat it. Dogs that have developed ear infections secondary to atopy will need samples taking from the ear. These animals will need to be treated with appropriate medication (antimicrobial tablets, shampoos, creams and ear drops), to clear the infection before your vet can diagnose atopy.

How is atopy treated?

Atopy can be an extremely frustrating problem for vets, owners and animals to deal with. It is important that everybody involved understands that although the problem can be satisfactorily controlled, it is rarely cured. (*Atopy can be considered to be the canine equivalent of hay fever – it is possible to control the symptoms by reducing pollen exposure and taking medications to reduce the allergic response, but a person with hay fever will always have hay fever so will always have to take measures to control their condition*).

There are two phases to the treatment of atopy. The first is the treatment of acute "flare ups" where the skin is red and sore and often becomes infected. In this phase, the goal is to get rid of the infection and control the red, inflamed skin. Once this has been resolved, the dog will require "maintenance" treatment to keep the





itchiness under control and to reduce the risk or frequency of future "flare ups".

TREATMENT OF FLARE UPS IN ATOPIC DOGS

1. Clear up any skin infection and treat any concurrent ear or eye problems. This may require antibiotic or antifungal tablets, shampoos, creams or ear/eye drops.

2. **Check that nothing else is causing the itchiness.** Just because a dog has atopy, it does not mean that they cannot have other conditions causing them to be itchy at the same time. So it is always important to check for fleas and mites and make sure that anti-parasite treatment is up to date. Impacted anal glands can also cause general itchiness so your vet should check these too, especially when itchiness is concentrated around the rear end of your dog.

3. Anti-inflammatory medication to switch off the red, swollen, itchy skin. In general, the best anti-inflammatory treatment in the acute flare-up phase will be a steroid. Steroids work very quickly and are very effective at reversing the inflammatory changes in the skin. They can be prescribed as tablets, creams and ear/eye drops. When a short course of steroids is prescribed, serious side effects are not expected. However, steroid tablets often cause increased appetite and thirst.





MAINTENANCE TREATMENT FOR ATOPIC DOGS

Once the flare up has been resolved (any infection has been cleared and the skin is no longer red and inflamed), if all treatment is stopped the dog will quickly become itchy again. Maintenance treatment is used to control itchiness and hopefully prevent or reduce future flare ups.

1. Ensure that flea control is up to date and constant. Many atopic animals are allergic to flea saliva, in addition to being allergic to pollens, dust mites and so on. All animals in contact with your dog will need to be treated with a prescription product and environmental management is also essential. Your vet will discuss this with you.

2. Use medication to 'switch off' the itch – Apoquel. Apoquel is a tablet medication that is given once daily to prevent the itching that occurs in atopy. It works by blocking the action of some of the itch-chemicals that are present in the skin of dogs with allergies. It begins to work within hours of taking the first tablet. We see very few side effects with Apoquel, but because it is a chemical drug that acts on the immune system, dogs taking the tablets should be examined by a vet every 6 months and have blood and urine tests taken every 12 months. Apoquel should not be used in dogs under 12 months of age. As a very rough idea of cost, including blood tests and examinations, it will cost £525 every 6 months to treat a 15kg dog with Apoquel.

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3. Use medication to 'switch off' the itch – Cytopoint. Cytopoint also acts on the skin to 'switch off' the itch, however Cytopoint is given as a monthly injection at the surgery rather than a daily tablet at home. Because Cytopoint is a biological therapy rather than a pharmacotherapy (it is an antibody that blocks the itch receptors in the skin) it can be used in any age of dog and does not require annual blood tests. Cytopoint has no reported side effects on the data sheet. As a rough idea of cost for the monthly injections, it will cost £940 every 6 months to treat a 15kg dog with Cytopoint.

4. Use medication to 'switch off' the itch - Atopica Atopica is an immunosuppressive medication. It does not only suppress itching (as is the case with Apoquel and Cytopoint) but it also controls inflammation (so can resolve redness and inflammation of the skin). The medication is given every day for 8 weeks until the itch is controlled, and then the dose is gradually reduced to find the lowest dose that controls the itchiness (often every other day or twice a week). This medication has more widespread and powerful effects on the immune system than Apoquel or Cytopoint, so regular examinations and blood tests are important, and side effects such as diarrhoea or poor appetite can be seen. As a rough idea of cost, it will cost around £1045 every 6 months to treat a 15kg dog with Atopica. Atopica may need to be stopped temporarily when your dog is vaccinated. Atopica is only prescribed in preference to Apoquel or Cytopoint when atopic dogs require additional anti-inflammatory effects on a long term basis.





5. Use medication to 'switch off the itch' - corticosteroids Steroids will also suppress the immune system and stop the itch. Like Atopica, they have more widespread effects on the body's immune system than Apoquel or Cytopoint. Common side effects include increased hunger, increased thirst and urination, depression, skin thinning and an increased risk of diabetes and liver disease. There are several other medications that cannot be given at the same time as corticosteroids, such as the antiinflammatory painkillers, because together the drugs can cause stomach ulceration. Examinations every 6 months and blood tests every 12 months are recommended for monitoring. As a rough idea of cost, it will cost around £371 every 6 months to treat a 15kg dog with corticosteroids. In general, the least side effects are seen when Apoquel or Cytopoint are used for dogs that require anti-itch therapy only; and when Atopica is used for dogs requiring anti-inflammatory and anti-itch therapy together. However, steroids are the least expensive option, so will sometimes be selected above the other treatments for financial reasons.

6. Shampoos will soothe the skin. Dogs that are prone to repeated skin infections may benefit from using antimicrobial shampoos on a regular basis to keep the level of bacteria and yeast on the skin to a minimum and thus reduce the risk of flare ups occurring.

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7. Regular cleaning and anti-inflammatory products for the ears. For dogs with recurrent ear infections forming part of their atopy condition, regular ear cleaning (to keep levels of bacteria and yeast low) and application of anti-inflammatory steroid drops, can help to reduce flare ups with full-on ear infections.

8. Antihistamines and essential fatty acids will also help.

Antihistamines and essential fatty acids (similar to Evening Primrose Oil) may be prescribed for your dog. These treatments do not treat atopy directly, but they improve skin quality in general, making the skin able to tolerate a higher exposure to allergic triggers before a flare up is provoked.

IS THERE ANYTHING ELSE WE CAN DO TO HELP ATOPIC DOGS?

1.Consider performing a diet trial. Approximately 15% of dogs with atopy are allergic to something that they are eating. The only way to find out if your dog is in this category is to feed a special exclusion diet for 8 weeks. If your dog is not itchy at the end of this period then the diet (or an equivalent) should be continued for life and your dog may not require any further maintenance treatment. If your dog remains itchy after 8 weeks of the special diet, then your dog is allergic to something other than food and there is no reason to continue the special diet. Some dogs remain itchy on the special food but are less itchy than they are on standard food – we assume that these dogs have allergies both to food and to other triggers (and we suggest that the diet is





continued alongside other therapies). The diets that we use for the 8 week trial are HYDROLYSED diets that have been heattreated to break up the proteins into such small pieces that the immune system cannot recognise them. The diet must be fed exclusively (no other treats or foods given). We usually use antiitch medication for the first 4 weeks of feeding the new diet and then stop the medication, continue the diet and see if the problem is solved or not. You should choose one of the following three diets (available through the practice or online):

Hills z/d (tinned or dry)

Purina HA (dry)

Royal Canin Anallergenic (dry)

2.Immunotherapy

It is possible to run tests to try to find out which things your dog is allergic to. This may allow you to help your dog in one of two ways:

A: You could try to avoid the things that your dog is allergic to (e.g. damp dusting and avoiding dust traps in the house for dogs with dust mite allergy; rinsing dogs with grass allergy off after walking on grass / using protective suits to limit contact of their skin with the grass).

B: It is possible to use the test results to try a treatment known as "desensitisation". The laboratory looks at your dog's test results and creates a bespoke "vaccine" with tiny amounts of the things your dog is allergic to in it. This is injected in very gradually





increasing quantities in the hope that the dog's body will learn not to react in an allergic manner. Desensitisation takes a long time to work (1-3 years) so it is necessary to use maintenance and flare up therapies during treatment. Approximately half of dogs will fail to show a meaningful response, and treatment is discontinued. Of those that show a positive response, around half are able to stop long term maintenance treatment and the other half still require this, but at a lower dose than previously.

Allergy tests can either be carried out as a blood test taken at Acorn House (this measures the antibodies to different allergic triggers in the blood); or as an intradermal patch test carried out at a specialist centre (tiny bits of allergic material are injected into the skin and the specialist assesses the reaction to see if the body is allergic to any of them). Some specialists think that the intradermal testing is the better test (it more closely mimics the reaction that we are treating in atopic dogs) but published studies have not found any difference in outcomes to desensitisation between dogs that had the initial tests as a blood test and dogs that had initial intradermal testing.

Summary

Atopy is a fairly common condition in dogs. It can compromise your pet's comfort and welfare if it is left untreated. Treatment is usually based on controlling the problem rather than obtaining a permanent cure, and is best achieved by using a combination of medications and management measures to keep your dog's itchiness at a reasonable level. It is helpful to divide treatments





into those used for a sudden flare up, and those used for maintenance.

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