

Canine Atopic Dermatitis

What is atopic dermatitis?

Atopic dermatitis is a chronic, itchy skin condition caused by a hypersensitivity reaction of the immune system to normal aspects of a dog's diet or environment.

What causes atopic dermatitis?

The cause of atopic dermatitis is not well understood, but some breeds (such as Labradors, Retrievers, Westies, and Staffies) appear to be predisposed, suggesting there is a genetic element.

However, any breed can develop atopic dermatitis, and it is thought that other abnormalities in the immune system, skin barrier, or environment may also contribute.

What are the signs of atopic dermatitis?

Atopic dermatitis causes itchy inflammation of the skin. Dogs can be mildly to severely affected, one dog may not show all the signs, and the signs can closely resemble other skin conditions. Look out for:

- Redness of the skin, especially the belly, groin, armpits, feet, or ears
- Scratching, licking, and chewing, often focussed on the feet
- Recurrent ear or skin infections
- Hair loss due to scratching or chewing
- Runny red eyes or nose

How is atopic dermatitis diagnosed?

Itchy skin can be caused by a large number of conditions, and unfortunately there is no single test for atopic dermatitis. Your vet will make a diagnosis based on how well your dog's signs fit, and by using tests to rule out other similar conditions.

This is often a multi-step process that can take some time to reach a diagnosis, and may include:

- *A physical exam* to assess how and which areas of the skin are affected
- *Parasite treatment* to treat any fleas and mites that may be causing itch
- *Diet trial* to assess for food sensitivities*
- *Samples* of hair and skin via scrapings, tape, hair plucks, and biopsy to rule out bacterial and yeast infections, parasites, skin cancers, and autoimmune diseases
- *Blood tests* for hormone disorders and sometimes to assess what your dog is allergic to**
- *Medication trials* to assess their response to anti-inflammatories and anti-itch medications

**Diet trials* are 6-8 week periods of feeding exclusively a fully-hydrolysed diet such as Hill's z/d or Royal Canin Anallergenic, which have had their proteins broken down small enough that the immune system shouldn't react to them. If signs improve on this diet (which could take the full 6-8 weeks), a food sensitivity is more likely.

****Allergy blood tests** cannot be used to diagnose atopic dermatitis, because many normal dogs will test positive for some allergens. Once atopic dermatitis has been diagnosed, these blood tests can help you to avoid or minimise exposure to allergens or to build immunotherapy treatment for your pet.

How is atopic dermatitis treated?

Each dog will require a unique treatment plan, and it often takes time to try different treatments and find the combination that works best for your individual pet. Treatments can be broadly broken down into:

- Dietary modification
- Environment modification
- Topical/skin barrier treatments
- Oral and injectable medications

Dietary modification: if a diet trial shows your dog has a food sensitivity, they may need to be fed only a hydrolysed diet long-term, or you can try adding new foods in and assessing for a skin reaction (also called a “dietary challenge”) to see which foods can be tolerated.

Even if your dog does not have a dietary sensitivity, feeding ant-inflammatory fatty acids can improve skin barrier function. Hill’s d/d, Royal Canin Skin Care, and Yuderm can all be fed to aid skin health.

Environment modification: avoiding allergens can be difficult, but there are steps your vet can advise you on to minimise skin exposure to pollens, grasses, storage mites, and house dust mites if needed.

Topical/skin barrier treatments:

- *Medicated shampoos* can be used 2-3 times weekly, be sure to leave on the skin for 10 minutes
 - *Malaseb* may be prescribed if your pet is prone to yeast or bacterial skin infections
 - *Douxo Calm* or *Allermyl* can soothe the skin and reduce itch
- *Leave-on mousses* such as *Douxo Calm*, can prolong the soothing action of shampoos
- *Antimicrobial wipes* such as *CLX Wipes* can reduce infection between toes and facial skinfolds
- *Steroid sprays* such as *Cortavance* can be used for particular problem areas with little hair

Oral and injectable medications: it is important to discuss the suitability and safety of each medication with your vet, but options can include:

Medication	How it is given	Benefits	Drawbacks
Antihistamines	Tablet	Good safety profile	Drowsiness Often only effective for mild cases
<i>Steroids</i>	Tablet	Very effective at reducing itch and inflammation Rapid-acting	Can affect immune system Excessive drinking, appetite, and urination Significant long-term health risks
<i>Apoquel</i>	Tablet	Effective at reducing itch for most dogs	Potential to affect immune system, so yearly bloods are advised Not licensed for dogs less than 1 year old
<i>Cytopoint</i>	Monthly injection	Effective at reducing itch for most dogs Excellent safety profile	Monthly appointment for injection
<i>Atopica</i>	Tablet/liquid	Effective at reducing steroid dose in steroid-dependent patients	Can affect immune system, so regular bloods are advised Can take a few weeks to start working

Immunotherapy: this treatment re-teaches the immune system to tolerate allergens by injecting small doses of the allergen regularly. The dose is gradually increased to increase tolerance, and then maintained for life. Allergy testing is needed first to decide which allergens to inject. Success rates are around 50-70% and it can take 12 months of treatment to know if it will work.

Often, a dog will require a combination of the above, or more treatments at certain times of year.

Antibiotics: inflamed skin is vulnerable to infection, and your dog may need antibiotics in the form of creams, shampoos, drops, or tablets if your vet also detects a skin or ear infection.

What is the prognosis/outlook for atopic dermatitis?

It is important to understand that atopic dermatitis is generally a lifelong condition and cannot be cured, but can be managed. It can take time to trial different treatments and find the best combination for your dog. Your dog is likely to experience “flare-ups” despite treatment, and periods where their skin is well-controlled. Continuing proactive treatment, even when their skin is good, is important to reduce the possibility of another flare and reduce the chances of skin infection.

Although reaching a diagnosis and finding the right treatments can take some time, your vet will work with you to achieve many years of comfortable life with minimal itch.