

Itchy skin

Skin problems are one of the most frequent reasons owners bring their pets to the vet. Pruritis is defined as an unpleasant sensation within the skin that provokes the desire to scratch. Itching is a sign, not a diagnosis or specific disease.

Symptoms:

- excessive scratching,
- biting/chewing,
- licking its skin or
- rubbing areas of the body such as their paws, face, ears and rear end.

The most common causes:

- parasites,
- infections, and
- allergies.

There are many skin diseases that do not initially cause itching. Itching may develop because of secondary bacterial or yeast infections. It is possible that by the time itching develops the initial cause is long gone.

Infectious causes of skin disease include bacterial and fungal (especially yeast) and are common causes of itching but are often only secondary complications due to a primary cause such as allergies. Infections are often accompanied by hair loss, scaling, odour, and discharge.

If the itching goes away after a course of antibiotics, then the cause was a bacterial/fungal infection. However, if the dog's itching is unchanged or only somewhat better, the most likely underlying cause may be an allergy.

Allergies

Allergic dermatitis in dogs is a "hypersensitivity or immune system over-reaction" to a variety of everyday and otherwise harmless elements in the environment.

The most common causes of allergic itching are

- insect bites,
- food allergy,
- environmental allergens such as pollens, moulds or dust mites.

Most allergic dogs begin to show signs between one and three years of age.

Dogs that have seasonal itching are likely reacting to seasonal allergens such as pollen.

Dogs with year-round itching may have an environmental allergy and/or a food allergy. Environmental allergies are more common than food allergies; however, some pets may have more than one allergy, often by controlling one aspect (ex food) can decrease itching.

In dogs with allergic skin their skin is more sensitive and other conditions such as fleas or infection can worsen the level of itching from allergies. Therefore, it is important to treat any other health problems that could cause itching to manage your pet's allergies.

Diagnosis:

- History including age, where the animal itches – feet/ears/rump, inside/outside dog, food/diet/treats, seasonal itch, other animals affected, previous treatment and response to treatment and so forth.
- A physical examination.
- The initial workup may include flea combing, skin scrapes, hair plucks, cytologic examination of skin or ear samples.
- Food allergy is confirmed or excluded based on response to a diet trial. During a diet trial your dog is fed a specific hypoallergenic diet that does not include the foods it has normally consumed. Your veterinarian will specify a diet for example Hills Z/D, Royal Canin HP, Royal Canin Allergen Diet. A hypoallergenic diet is a diet with a single unique protein ingredient such as fish, duck, or venison and with a single carbohydrate such as potato. During this trial no other treats, table scraps, rawhides, supplements or other foods should be fed for at least 6-8 weeks.
- Allergy testing (Blood tests) and intradermal skin testing are also used to show antigen exposure patterns. Once the allergy test results are known, allergic pets can receive allergy shots or oral allergy drops to desensitize them to the allergen. This is the only therapy that specifically targets and treats the underlying cause of a pet's allergies by decreasing the immune system's allergic response.
- Skin biopsy results are usually nonspecific and inadequate for diagnosing some allergic conditions. However, in some cases, skin biopsies may be indicated to rule out other skin conditions/diseases.

Treatment

First step is often "to treat what you see and see what you left with". For example, first treating the infection and then re-assessing the skin.

Successful treatment depends on identification of the underlying cause. Allergies are a complex disease that require multiple approaches to decrease the itching and inflammation below the threshold of clinical signs.

Flea/parasite control

Since any itchy skin disease is made worse by fleas, good flea control is important, even if you do not see fleas it does not mean they are not there. If your pet's most itchy area includes the lower back or tail base, this is a strong indicator that he has fleas whether you see them or not. Often, becoming diligent with flea control is the least expensive and least labour-intensive way to control a pet's itch. First line treatments include good quality flea treatment (Revolution, Nexgard, Bravecto and so forth) and most newer treatments cover mange as well. It is important to treat all animals in the household and to flea treat the environment and kennels as well.



Shampoo Therapy

Shampoos used for allergies usually contain ingredients such as oatmeal, topical anaesthetics, antifungals, and/or steroids that help reduce itching. There are many benefits to shampoo therapy: using warm water is soothing and can remove any crustiness/dandruff that could be itchy. Rinsing off/wiping down after walks or beach time can get rid of any pollens and other allergenic substances, which results in less contact time with the skin and less itching.

Some conditions need a medicated shampoo depending on cause or symptoms, for example oily skin needs to be stripped of excess oils. Topical treatments can often decrease the amount of oral medication that is needed.

- Most medicated shampoos help to maintain skin barrier, pH and natural microbial balance; return softness/moisturises; relieves itching
For example Virbac Epi-Soothe® Shampoo uses the power of natural oatmeal, famous for its soothing and deep cleansing properties.
- **Ten minutes of skin contact is the minimum requirement for any medicated shampoo. Premature rinsing will not allow for the therapeutic benefit to be realized.**
- It is not recommended to use shampoos more than once a week as this will deplete the skin of its natural oils and cause more issues.

Because allergic patients frequently develop recurrent ear and skin infections with *Staphylococcus* and *Malassezia* species topical once to twice weekly therapy using antimicrobial/medicated shampoos and/or ear cleansers are recommended as an essential component in the **long-term** management

Food trials with a novel protein hypoallergenic diet for 6-8 weeks solely. If your dog steals a treat off the counter then you start at day 0 again. Strict control is necessary otherwise it is a waste of money and time. Good quality foods for sensitive skin can also be beneficial for dogs with environmental allergies.

Medications:

Steroids/Glucocorticoids are fast-acting medications that deactivate many inflammatory cells and reduce inflammatory/itch mediators. Injectable or oral steroids have many pros and cons in the treatment of allergies in pets. They are inexpensive and work quickly and effectively to reduce itching, and for short term use they are relatively safe. However, steroids have numerous side effects, such as increased thirst, urination, hunger, and weight gain. With prolonged use at high doses, steroids cause liver enlargement and increased liver enzymes, high blood pressure, kidney disease, infections of the skin and bladder, iatrogenic hyperadrenocorticism or diabetes.

Respect the Steroid

Severe itching amounts to a reduction in quality of life. It is important not to develop the mindset that corticosteroids should be avoided at all costs as this would be unfair to the itching pet. Steroids are valuable tools in the relief of pain and suffering and play an important role in the therapy of the itchy pet. The goal is not to avoid steroid use if possible but to avoid long term high dose dependence.

Animals that are treated with long-term medications should have physical examinations, bloodwork, and urine testing performed every 6-12 months to monitor for side effects. Additionally, other options to treat their allergies and to reduce their dependence on steroids should be tried such as topical sprays, medicated shampoos and so forth.

Lokivetmab (Cytopoint®)

Cytopoint® is an injectable medication that can be used to control itching in dogs with environmental allergies. It consists of antibodies to interleukin-31, the chemical messenger responsible for the itch sensation. The injection is administered every 4-6 weeks under the skin in dogs and typically controls itching for 1-2 months.

Cyclosporine (Atopica®)

Cyclosporine (Atopica®) can be used as a non-steroidal treatment to reduce allergic skin inflammation and itching. It is helpful in approximately 80% of allergic dogs and cats to control itch, but is more expensive than steroids. Cyclosporine is a capsule given orally daily for 4-6 weeks, then the dose and frequency are slowly decreased to the lowest possible amount needed for comfort. Some pets need it daily, but in some the dose can be reduced to every 2-3 days. Cyclosporine has fewer side effects than steroids, but because it is still an immunomodulatory drug 6-12 monthly exams, bloodwork, and urine testing are needed to monitor for side effects.

Oclacitinib (Apoquel®)

Oclacitinib (Apoquel®) is a newer medication for managing allergies in dogs. It is called a JANUS- kinase inhibitor and it exerts its' effects in the skin just as rapidly as corticosteroids. It is effective in about 90% of allergic dogs to control itching. It is a tablet given orally once daily. It has fewer side effects than steroids, but because it still has immune modulatory effects 6-12 monthly exams, bloodwork, and urine testing are needed to monitor for side effects.

Antihistamine and Antihistamine Trials

Histamine is the main mediator of inflammation in humans thus there are many brands available on prescription or over the counter. Histamine is not the major mediator of inflammation in dogs thus they are not as reliable for dogs as they are for us. Researchers found very little benefit from antihistamines for acute flare ups except for mild cases. They also cause drowsiness, which may be responsible for the reduction in scratching. Responses are variable between individuals. Common brands include Cetirizine (Zyrtec®), Dexchlorpheniramine (Polaramine), or Loratadine (Claritin®).

Essential fatty acids (fish oils) are rarely effective alone to prevent itch but it can be used to boost the effects of other anti-itch medications. They require weeks to build up in the body in order to be effective in making the skin less able to generate inflammatory mediators. One to two capsules of good quality Omega 3 capsules orally daily are recommended as more than that can cause gastrointestinal upsets. These capsules are also bitter/taste terrible so be warned if the dog chews them.

Ultra-Microsized Palmitoylethanolamide or "PEA" (Redonyl®)

PEA is a natural substance made by both plants and animals. In animals, it is involved in restoring balance to the skin's biochemistry and preventing release of the biochemical mediators of itching. It is a soft chew given daily or based on clinical signs.

Summary

Although allergies in pets are not "curable", they are very treatable and can be managed in most pets. Skin diseases are often the most frustrating cases not only for veterinarians but for owners as well. There is no quick fix.

Every animal is an individual and often different medications need to be tried or combination therapy may be needed to provide maximal comfort. When the motivated pet owner and veterinarian work together, allergic pets can live long, comfortable lives.

For any queries feel free to contact us.