



# Feline Allergies

One of the most common medical conditions affecting cats is allergies. An allergy is a state of over-reactivity or hypersensitivity of the immune system to a particular substance called an allergen. Exposure to the allergen, usually on multiple occasions spanning months to years, sensitizes the immune system, and subsequent exposure to the same or related allergen causes an over-reaction. An animal cannot be allergic to something that their body has not seen before.

Hypersensitivity in cats can manifest in one of three ways:

1. Itchy skin - this is the most common presentation of allergies we see in cats. Irritation is either localized to one area, or a generalized reaction all over the cat's body.
2. Respiratory symptoms - coughing, sneezing, and wheezing. Sometimes, there may be an associated nasal or ocular (eye) discharge.
3. GI upset - symptoms include vomiting, flatulence, and/or diarrhea.

A very large number of substances can act as allergens. Most are insect, plant, or animal proteins, but small chemical molecules can also cause allergies. Common allergens include pollens, mold spores, dust mites, shed skin cells (like pet allergies in humans), insect proteins such as flea saliva, and some medications.

## ***Flea allergy dermatitis***

Flea saliva is the most common insect allergen in cats, causing flea allergy dermatitis (FAD). Most cats experience minor local irritation from flea bites, whereas a cat with FAD can experience severe irritation from a single flea bite. A cat with FAD will bite and scratch themselves and may remove large amounts of hair, especially at the base of the tail. A cat may have numerous scabs around the head and neck, which is referred to as miliary dermatitis, due to the fact that the scabs resemble millet seeds. A secondary bacterial infection may develop in the areas of broken skin.

Some important points about FAD:

- ★ Fleas typically do not remain on the cat except for the minutes to hours they feed, which is why cat owners often do not see live fleas on their cat unless there is a severe flea infestation in their environment.
- ★ FAD can develop at any age. It is important to note that cats with other forms of allergies, such as environmental allergies (e.g., pollens, molds, dust mites) tend to be highly sensitive to a flea bite and are therefore much more susceptible to FAD than cats that do not have other allergic conditions.

- ★ Because one flea can be a problem for a cat with FAD, strict flea control is essential. There are a variety of effective products available in the form of collars or topical medications. Talk to your veterinarian about which product is best for your cat.
- ★ In cases of severe itching, your veterinarian may prescribe antihistamines or corticosteroids (steroids) to block the acute allergic reaction and give immediate relief. If a secondary bacterial infection is present, an appropriate antibiotic will be prescribed.

## ***Atopic Dermatitis***

Atopic dermatitis or atopy generally refers to allergic reactions to environmental allergens such as pollens, grasses, molds, mildew, and house dust mites. This occurs when a cat's immune system overreacts to an airborne allergen. Many of these allergies occur seasonally, such as ragweed, cedar, and grass pollens. However, others are always with us, such as molds, mildew, and house dust mites.

Some key points:

- ★ There are no known breed predispositions in cats and atopy can develop at any age
  - The onset of new cases of atopy has been reported in cats as young as six months and as old as 14 years.
- ★ Affected cats often have a history of chronic or recurrent itching, which may be seasonal or non-seasonal.
  - Tend to have a history of recurring skin and/or ear infections.
  - In many cases, affected cats are so itchy that they create significant trauma to their skin.
- ★ This is diagnosed by ruling out other potential skin conditions, as there is no specific test for atopy.
  - Ringworm testing
  - Skin scraping - can rule out parasites
  - Skin cytology - rules out bacterial infections

There are a few options available to help keep your feline companion feeling comfortable. During a flare up of symptoms, steroids will dramatically block the allergic reaction in most cases and rapidly improve the cat's clinical signs. Steroids may be given orally or by injection, depending on the cat's condition. There are negative side effects of long term steroid use, so once the symptoms are under control, your veterinarian may prescribe an antihistamine. Some cats respond well to certain antihistamines, such as chlorpheniramine maleate (Chlor-trimeton<sup>®</sup>, Chlortripolon<sup>®</sup>), while others are ineffective. There are also products such as "Atopica," for cats that are specifically designed for feline allergic dermatitis.

It is important to understand that it can take 7–10 days before antihistamines become effective. Therefore, they are often ineffective in sudden flare-ups. It is recommended that cats predisposed to atopic dermatitis should be tried on fatty acid supplements to see if they help

reduce future flare-ups and clinical signs. Similar to antihistamines, essential fatty acids (fish oils) are similarly ineffective during sudden episodes because they require several weeks to take effect.

In cases of severe atopy, your veterinarian may recommend seeking an allergist or dermatologist for your cat. Allergens can be identified through allergy testing for dogs, just like they can be identified for people. There are dermatologists and allergists for cats that can help identify allergens through specific testing and then create a treatment plan, specific for your cat. Feline allergy specialists can create a serum that is given in a series of injections that can help desensitize your cat to their allergens. With this treatment, very small amounts of the antigen are administered on a regular basis. This repeated dosing has the objective of reprogramming the immune system. Success rates vary with this treatment, a realistic goal is to reduce the severity of the symptoms, rather than completely eliminating them. Steroids may be used until the allergy shots become effective, but the goal is to eliminate the need for long term steroid use, due to the negative side effects.

- ★ *Any cat suspected of having atopic dermatitis should also be considered for a hypoallergenic food trial. Many cats with atopic dermatitis are also allergic to an ingredient in their food, making the diagnosis and treatment more challenging.*

## **Food Allergies**

Food allergies in cats are caused by an immune reaction to a food or food additive. The allergy most frequently develops in response to the protein component of the food (e.g., beef, pork, chicken, or turkey). Vegetable proteins, such as those found in corn and wheat, and food additives and preservatives may cause food allergies in some cases. A food allergy may produce any of the clinical signs previously mentioned, including itching, digestive disorders, and respiratory distress.

The foods typically associated with food allergies in cats include beef, fish, chicken, and dairy. A cat must have been exposed to a food ingredient before developing an allergy to it, an animal cannot be allergic to something that the body has not seen before. Cats can develop a food allergy at any time in their life; an ingredient a cat has consumed for a long time can still cause an allergy at some point.

Some key points:

- ★ Male and female cats are equally likely to develop food allergies.
- ★ Food allergy testing is recommended if clinical signs have been present for several months, if the cat has a poor response to steroids, or if a very young cat itches without other apparent causes.
- ★ Testing is conducted by feeding an elimination or hypoallergenic diet. This means a diet in which the ingredients have not previously been fed to the cat (e.g., duck, rabbit, venison), or a hydrolyzed protein diet.

Treatment requires identifying the offending component(s) of the diet and eliminating them. The most accurate way to test for food allergies is with an elimination diet trial using a

veterinary hydrolyzed protein diet. A hydrolyzed protein diet is a specialty pet food that breaks down proteins into small pieces, or amino acids and peptides, through a process called hydrolysis. This process makes the proteins unrecognizable to a pet's immune system. It is recommended that the trial last 8 weeks, as it can take this long for all other food products to be eliminated from the body. It must be emphasized that a food trial will be invalid if the diet is not fed exclusively. All table food, treats, and flavored vitamins must be discontinued during the testing period. There may be problems with certain types of chewable tablets or medications, due to flavoring components - talk to your veterinarian about any medications or supplements your pet is taking. If there is a positive response and improvement in your cat's clinical signs, your veterinarian will advise you on how to proceed.

- ★ *Unless the diet is fed exclusively, the test is meaningless - this cannot be overemphasized. Even accidentally providing a tiny amount of the offending protein can invalidate the test.*

Sometimes, a hydrolyzed protein diet is not always possible (your cat refuses to eat the food), and in that case, a novel protein diet should be considered. This is a diet that does not contain any products that were present in your cat's previous foods. This usually includes a protein that your cat has not seen before, such as rabbit, kangaroo, venison, etc. The idea is if the body has not seen the protein before, it cannot be an allergen. Another option would be a home-prepared novel protein diet that does not contain any ingredients of your cat's previous diet. When home cooking for your cat, it is important that they are receiving all of the micronutrients they need. Ask your veterinarian for the best way to prepare a balanced diet, and utilize websites such as "Balance It," which help you prepare healthy, balanced recipes for your cat. If your cat's symptoms improve after the food trial, a presumptive diagnosis of a food allergy is made. Exclusively feeding a hypoallergenic diet lifelong is highly successful in treating food allergic skin disease in many cats.

- ★ The symptoms of allergies can be confused with other disorders or occur concurrently. Therefore, do not attempt to diagnose your cat without veterinary assistance. Be prepared for your pet to receive a full diagnostic evaluation to rule out other causes of itching and skin problems. If an allergy is diagnosed, your whole family must follow your veterinarian's advice very closely to successfully relieve your pet's discomfort.