

# Allergies in Cats

## What are allergies and how do they affect cats?

One of the most common conditions affecting cats is *allergy*. An allergy occurs when the cat's immune system "over reacts" to foreign substances called *allergens* or *antigens*. Allergens and antigens are simply foreign proteins that the body's immune system tries to remove. These over reactions are manifested in one of three ways:

1. The most common manifestation is itching of the skin, either localized in one area or a generalized reaction all over the cat's body.
2. Another manifestation involves the respiratory system and may result in coughing, sneezing, and wheezing. Sometimes, there may be an associated nasal or ocular (eye) discharge.
3. The third manifestation involves the digestive system, resulting in vomiting, flatulence or diarrhea.

## How many types of allergies are there?

There are four common types of allergies in the cat: contact, flea, food, and environmental. Each has common clinical signs and unique characteristics.

## What is Contact Allergy and how is it treated?

Contact allergies are the least common of the four types of allergies in cats.

They result in a local reaction on the skin from contact with an offensive (allergic) substance. Examples of contact allergy include reactions to shampoos, flea collars or to types of bedding, such as wool. If the cat is allergic to such substances, there will be skin irritation and itching at the points of contact. Removal of the contact irritant solves the problem. However, identifying the allergen can be challenging in many cases.

## What is Flea Allergy and how is it treated?

Flea allergy is the most common allergy in cats.

A normal cat experiences only minor skin irritation at the site of the bite in response to flea bites. The flea allergic cat, on the other hand, has a severe, itch-producing reaction when the flea's saliva is deposited in the skin. Just one bite causes such intense itching that the cat may severely scratch or chew itself, leading to the removal of large amounts of hair. There will often be open sores or scabs on the skin, resulting in a secondary bacterial skin infection (pyoderma). The area most commonly involved is over the rump or base of the tail. In addition, the cat may have numerous small scabs around the head and neck. These scabs are often referred to as *miliary dermatitis*, a term that was coined because the scabs look like millet seeds.

The most important treatment for flea allergy is to eliminate all fleas. Therefore, strict flea control is the cornerstone of successful treatment. Unfortunately, this may be challenging in warm and humid climates, where a new population of fleas can hatch out every fourteen to twenty-one days. Topically applied monthly flea products may kill fleas before they have a chance to bite your cat. When strict flea control is not possible, injections of corticosteroids, also referred to as "cortisone" or "steroid shots", can be used to block the allergic reaction and give immediate relief. This is often a necessary part of with the initial treatment flea allergies. Fortunately, cats appear relatively more resistant to

the negative side effects of steroids than other mammalian species. If a secondary bacterial skin infection occurs from the flea allergy dermatitis, appropriate antibiotics must be used, generally for two to four weeks.

### **What is Environmental Allergies or Atopy and how is it treated?**

Environmental allergies or atopy is estimated to be the third most common type of allergy in cats. It is sometimes referred to as "seasonal allergy" when related to pollens.

Cats may be allergic to all of the same allergens that affect humans. These include tree pollens (cedar, ash, oak, etc.), grass pollens (especially Bermuda grass), weed pollens (ragweed, etc.), molds, mildew, and the common house dust mite. Many of these allergies occur seasonally, such as ragweed, cedar, and grass pollens. However, others are with us all the time, such as molds, mildew, and house dust mites. When humans inhale these allergens, we express the allergy as a respiratory problem. Atopy is also sometimes called "hay fever". The cat's primary reaction to atopy is severe, generalized itching.

Most cats that have an environmental allergy are allergic to several allergens. If the number of allergens is small and they seasonal, itching may last for just a few weeks at a time during one or two periods of the year. If the number of allergens is large or they are present year-round, the cat may itch constantly.

"Some allergens may be absorbed through the skin."

Treatment depends largely on the length of the cat's allergy season. It involves one of two approaches:

- The first approach involves the use of medications (anti-histamines, steroids, immunomodulating drugs) and medicated shampoos. Steroids will dramatically block the allergic reaction in most cases and bring about rapid improvement in the cat's clinical signs. Steroids may be given orally or by injection, depending on the cat's condition. As stated previously, the side effects of steroids are much less common in cats than in dogs or people. If steroids are appropriate for your cat, you will be instructed in their proper use. Some cats benefit with anti-histamines alone where the most common side effect is sedation. Some cats are helped considerably by hypoallergenic or medicated shampoos. It has been demonstrated that some allergens may be absorbed through the skin. Frequent bathing will reduce the amount of antigen exposure through this route. In addition to removing surface antigen, bathing alone will provide some temporary relief from itching and may allow the use of a lower dose of steroids.
- The second approach to environmental allergies treatment is desensitization with antigen specific immunotherapy injections or "allergy shots." This is not to be confused with injections of corticosteroids (steroids). Once the specific sources of allergy are identified through allergy blood tests (most commonly IgE blood tests) or intradermal skin testing, very small amounts of the antigen are injected weekly. The aim is to "reprogram" the body's immune system response to the allergen. It is hoped that as time passes, the immune system will become less reactive to the problem-causing allergens. If desensitization appears to help the cat, injections will often continue for life. For most cats, a realistic goal is for the itching to be significantly reduced in severity rather than be completely cured. In some cats, the itching and associated clinical signs may completely resolve while others may experience minimal improvement. Steroids are not used with this treatment protocol, except on an intermittent basis. On average, approximately half of the cat's receiving desensitization therapy will experience a significant decrease in their clinical signs. This therapeutic approach is usually recommended for the middle-aged or older cat that has year round itching caused by environmental allergies. This approach is not used with food allergy.

Although desensitization is the ideal way to treat environmental allergies, it does have some drawbacks and may not be the best choice in certain circumstances.

- *Cost*: This is the most expensive form of treatment.
- *Age of Patient*: Because many cats develop additional allergies as they get older, young cats may need to be retested one to three years later.
- *Success Rate*: About 50% of cats will have an excellent response. About 25% get partial to good response. About 25% get little or no response. The same statistics are true for people undergoing desensitization.
- *Time of Response*: The time until apparent response may be up to 12 months.
- *Interference of steroids*: Cats must not receive oral steroids for two weeks or injectable steroids for six to twelve weeks prior to testing. These drugs will interfere with the test results.

### **What is Food Allergy and how is it treated?**

Cats are not likely to be born with food allergies.

More commonly, they develop allergies to food products they have eaten for a long time. Food allergies are now estimated to be the second leading cause of allergic dermatitis in cats. The allergy most frequently develops in response to the protein component of the food; for example, beef, pork, chicken, or turkey. Vegetable proteins such as those found in corn or wheat may cause food allergies in some cases. Food allergy may produce any of the clinical signs previously discussed, including itching, digestive disorders, and respiratory distress. Food allergy testing is recommended when the clinical signs have been present for several months, when the cat has a poor response to steroids, or when a very young cat itches without other apparent causes of allergy. Testing is done by feeding an elimination diet or a special hydrolyzed diet. Because it takes at least eight weeks for all other food products to get out of the system, the cat must eat the special diet exclusively for a minimum of twelve weeks. If a positive response occurs, you will be instructed on how to proceed. *If the diet is not fed exclusively, it will not be a meaningful test. This means absolutely no treats, other foods, people foods or flavored medications during this period. We cannot overemphasize this. Even accidentally providing a tiny amount of the offending protein can result in invalidating the test.*