

## INHALANT ALLERGY

### *What are allergies and how do they affect dogs?*

Allergies may be defined as the body's response to foreign proteins. For our purposes, we will consider allergies to be any of the common reactions or responses to pollens, flea bites, and so on that result in itching.

### *Is there more than one type of allergy?*

Yes, there are at least five common types of allergy in the dog:

- a) Flea
- b) Food
- c) Contact
- d) Inhalant
- e) Bacterial Hypersensitivity



### *I have been told that my dog is atopic. Is this the same as inhalant allergy?*

Yes. After flea allergy dermatitis (FAD), atopy is the second most common type of allergy in the dog. It is caused by an inhaled allergen to which the dog's immune system overreacts.

### *What exactly causes it?*

There are a wide variety of allergens that can cause atopy. These are similar to the causes of hay fever or human asthma.

When the affected individual inhales dust, pollens or molds, the allergic response occurs.

### *What happens to the dog when this occurs?*

Atopy in the dog is usually characterized by seasonal, generalized itching. Your dog chews, licks and scratches almost the entire body, especially the feet and face. Saliva will often stain light colored hairs resulting in orange or reddish brown hair. The dog may also scratch and rub the face, particularly around the eyes and ears. The axillae (armpits), groin and the inside of the thighs may also be affected.

In humans, inhaled allergens cause respiratory problems, hay fever or asthma. Dogs will occasionally have respiratory signs, in addition to the pruritis (itching).

***How do you find the cause of my dog's inhalant allergy?***

Diagnosis is not easy. It is based on the presence of clinical signs and ruling out other causes of pruritis such as flea allergy dermatitis or food allergies. The itching caused by grass pollen is the same as house dust mites and many molds. In other words, your dog may be allergic to several different things with the end result being the same, excessive itching and scratching.

***I understand my dog will have to have allergy tests to make a diagnosis. Is this true?***

Approximately 80% of allergy diagnoses can be confirmed by allergy testing. There are two primary methods of allergy testing. The traditional allergy test is called intra-dermal allergy testing and consists of injecting a tiny amount of allergen into the skin. If the body produces a response to the allergen, the body is said to be allergic to that substance. The other allergy test involves taking a blood sample and is called IgE allergy testing. The blood is evaluated for the presence of immune cells against certain allergens. If the body contains a high number of these IgE antibodies, an allergy to that allergen exists. We will discuss with you the best type of testing for your pet's condition but in most cases intra-dermal testing is preferred and thought to be more accurate.

Once the diagnosis has been made, it is possible to desensitize the dog. This involves the use of specific antigen injections that can be created according to the results of the allergy tests. The theory is that the controlled injections of increasing amounts of the offending allergens "reprogram" the dog's immune system to reduce its response. For most dogs, allergen therapy of "allergy injections" result in significantly reduced itching and may be completely curative in some.

***If this does not work, what else can be done?***

Anti-inflammatory drugs including corticosteroids, cyclosporin and antihistamines will often bring relief of itching. In addition, the uses of certain omega fatty acids help most pets with allergic skin disease. These approaches treat only the clinical signs, not the underlying allergy.

***My friend's dog has an atopy and seems to be helped by regular bathing. Can I try this?***

Many dogs benefit from frequent bathing with special hypoallergenic shampoos. Research shows that some allergens are absorbed through the skin and the theory is that frequent bathing reduces the amount of allergen that the patient absorbs.

Antibiotics may also be used if there is a secondary bacterial skin infection (pyoderma).

***My dog only itches in the spring and I have been told she has a seasonal allergy. What does this mean?***

Seasonal allergy and atopy describe the same type of allergic skin disease. The majority of atopic dogs experience itching during certain seasons when flowers or trees are blooming and producing pollens. Other atopic dogs will have problems year-round especially in warm climates (i.e. QLD) where many plants and grasses will produce pollen all year round. Other common causes of non-seasonal atopy is the house dust mite or that the dog has separate allergies to multiple plants that produce pollens at different times of the year resulting in a constant allergy.

***My dog has a grass allergy each year. Does that mean it should not walk on grass?***

No. So-called “grass allergies” are more correctly termed grass pollen allergies. Pollens are airborne. Closely cut grass with no seeding heads will cause fewer problems, but there is little you can do to prevent your pet from being exposed to grass pollens.

***Are there any other conditions connected with atopy that I should know about?***

Yes. Some dogs with atopy also have *hypothyroidism* or low thyroid gland production. Hypothyroidism affects the skin and may exacerbate allergic skin conditions.

Dogs with chronic skin infections or allergies should be tested for hypothyroidism. If your pet has hypothyroidism, it too needs to be treated.

***When my dog’s allergies are bad, she seems to have a terrible smell. Is this normal?***

When allergies occur, the skin produces more *sebum*, which is an oily material that causes a musty odor. Once the itching and scratching are controlled, the odor and *seborrhea* also clear up. Another cause of skin odor can be skin or ear infection with Yeast and bacteria.

There are several treatments (e.g. shampoos, ear drops, tablets) available to reduce sebum, bacteria and yeast in the skin and hence help reduce the odor.