

## Allergies in Dogs

Coping with an itchy pet can be an extremely frustrating experience for the pet owner, the pet and the veterinarian. Itchy skin can be caused by many things but the common causes fall into two groups: external parasites and allergies.

External parasites that most commonly cause chronic itching dermatitis include fleas and *Sarcoptic* mange mites. Both of these can be treated with preventions and prescription medications.

In the dog, the most common symptom associated with allergies is itching of the skin, either localized (in one area) or generalized (all over the body). In some cases, the symptoms involve the respiratory system, with coughing, sneezing, and/or wheezing. Sometimes, there may be runny discharge from eyes or nose. In other cases, the allergic symptoms affect the digestive system resulting in vomiting and diarrhea. Allergies are quite common in dogs of all breeds and backgrounds. Most allergies appear after the pet is six months of age with the majority of affected dogs over age two.

There are several ways of classifying allergies. Some examples of classifications include:

- Precipitating allergen - Flea Allergy
- Route the allergen takes into the body - Inhalant Allergy, Skin Contact Allergy or Food Allergy
- Time it takes for the immune reaction - Immediate-type Hypersensitivity, also called Anaphylaxis or Shock, and Delayed-type Hypersensitivity
- Type of immune reaction - Types I through IV Hypersensitivity
- Clinical Signs - Allergic Dermatitis or Allergic Bronchitis
- Inherited forms - Atopy or Seasonal Allergies

Insect bite allergy is the exaggerated inflammatory response to the bite or sting of an insect. Arachnids such as spiders and ticks, and Insects including fleas, blackflies, deerflies, horseflies, mosquitoes, ants, bees, hornets and wasps, and arachnids such as spiders and ticks can cause an allergic reaction in sensitive dogs.

Flea saliva is the most common insect allergen. Most dogs experience minor local irritation from fleabites. The allergic dog will react to a single bite with severe local itching. It will bite and scratch itself and may remove large amounts of hair, especially in the tail-base region. A secondary bacterial infection may develop in the broken skin. The area most commonly involved is over the rump in the tail-base region and extending down the hind limbs. Because one flea can be a problem for the allergic dog, strict flea control is essential.

The term "Inhalant Allergy" in the dog is used as a synonym for Atopy. The main inhalant allergens are tree pollens (cedar, ash, oak, etc.), grass pollens, weed pollens (ragweed), molds, mildew, and house dust mites. Many of these allergies occur seasonally, such as

ragweed, cedar, and grass pollens. However, others such as molds, mildew, and house dust mites occur year-round. When humans inhale these allergens, the allergy manifests mainly with respiratory signs - runny eyes, runny nose, and sneezing ("hay fever"). Although sometimes the symptoms of allergies include allergic rhinitis or bronchitis, in most dogs the allergy manifests mainly with itchy skin (pruritus). Due to these clinical signs, the condition is also called "Inhalant Allergic Dermatitis". The dog may rub its face, lick its feet and scratch the axillae (underarms).

Treatment depends largely on the length of the specific allergy season. It may involve one or more of the following three therapies:

Food allergy or food hypersensitivity can develop to almost any protein or carbohydrate component of food. It most commonly develops in response to protein of the food of a particular food origin; dairy products, beef, wheat gluten, chicken, chicken eggs, lamb, and soy are commonly associated with food allergies in dogs. Food allergy can develop at almost any age. Food allergy may produce any of the clinical signs previously discussed including itching, digestive disorders, and respiratory distress. A dog may have multiple types of allergy, such as both food allergy and atopy. If the diet is not fed exclusively, it will not be a valid test. All table food, treats or flavored vitamins must be discontinued during the testing period. There may be problems with certain types of chewable tablets such as heartworm preventative. Blood tests called serum IgE tests may give an indication of whether the dog is allergic to specific foods. Your veterinarian will discuss the specific tests and restrictions that are recommended for your dog.