

## FACT SHEET

### Allergies And Atopy

*There are numerous conditions that cause problems with a dog's skin, but the most common by far are allergies, many brought on by inappropriate diets.*

#### Symptoms of allergies

Dogs with allergies may show the following symptoms:

- Chewing on feet
- Rubbing the face on the carpet
- Scratching the body
- Recurrent ear infections
- Hair loss
- Mutilated skin

A dog that is allergic to something will show it through skin problems and itching, i.e. pruritus. It may seem logical that if a dog is allergic to something he inhales (atopy), like certain pollen grains, he will have a runny nose; if he is allergic to something he eats (food allergy), he may vomit; or if allergic to an insect bite (urticaria or hives) he may develop a swelling at the site of the bite. In reality, the dog will seldom have these signs, instead he will have a mild to severe itching sensation over his body and maybe a chronic ear infection.

In addition, allergic dogs will often chew on their feet until they are irritated and red as the feet are the only place dogs have sweat glands and these become inflamed with allergies. They may also rub their faces or scratch their sides and stomach. Because the wax-producing glands of the ear overproduce as a response to the allergy, they get ear infections. Bacteria and yeast often 'over grow' in the excessive wax and debris, which is identifiable by smell within the ear canal.

The skin lesions seen in an allergic dog are usually the result of him mutilating his skin through chewing and scratching. Sometimes there is hair loss, which can be patchy or inconsistent over the body leaving a mottled appearance. The skin itself may be dry and crusty, reddened, or oily depending on the dog. It is very common to get secondary bacterial infections of the skin due to these self-inflicted lesions. Such infections may be treated with antibiotics.

#### Allergens

When a dog is allergic to something, his body is reacting to certain molecules called 'allergens.' These allergens may come from:

- Trees
- Grass
- Weed pollens
- Fabrics such as wool or nylon
- Rubber and plastic materials
- Foods and food additives such as individual meats, grains, or colourings
- Milk products
- House dust and dust mites
- Flea bites

#### The body's response to an allergen

The reason that all these allergens cause itchy skin is that when allergens are inhaled, ingested, or come in contact with the dog's body, they cause the immune system to produce a protein referred to as IgE. This protein then fixes itself to cells called 'tissue mast cells' that are located in the skin. When IgE attaches to these mast cells, it causes the release of various irritating chemicals such as histamine. In dogs, these chemical reactions and cell types occur in appreciable amounts only within the skin.

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## Genetic factors and time influence allergies

Remember that pets must be exposed to the allergen for some time before the allergy develops. Exceptions may occur such as an allergy to insect bites, which may develop after only a few exposures. The dog's body must learn to react to the allergen. It is a learned phenomenon of the immune system that is genetically programmed and passed from generation to generation in several breeds. Allergies are especially common in certain terriers such as the Scottish, West Highland White, Cairn, and Wire Haired Fox; Lhasa Apsos and larger breeds such as the English and Irish Setters, Retrievers, and the Dalmatian. Allergies are also well documented in the Pug, Miniature Schnauzer, and English Bulldog.

In dogs, allergies usually start to develop between one and three years of age. They may start as late as age six or eight, but over 80% start earlier. To make matters worse, as the animal ages, it usually develops allergies to additional things and the response to any one allergen becomes more severe.

## Diagnosing allergies

Confronted with a scratching dog and frustrated owner, it is too easy for a veterinarian to miss a diagnosis or at least fail to make the owner fully understand the problem. Sometimes veterinarians take the easy way out and 'shotgun' the dog with several different medications hoping that at least one will hit the target and make the signs go away. If the dog stops scratching, the hair starts to grow back and the owner can sleep nights, all may look well, but the allergy is not necessarily cured and is likely to represent at any time.

Most allergies are the inhalant type and are seasonal (at least at first). The dog may be allergic to certain tree pollen that is only present in the environment for three weeks out of the year. This case is easy to handle. No matter what you treat the animal with he will start getting better in four weeks. In cases in which the allergy is mild but the irritated skin has become infected with bacteria, a broad-spectrum antibiotic will eliminate the infecting organism and the skin may return to near normal appearance, even though the treatment has in no way been directed toward the allergy.

A definitive diagnosis of an allergy and determination of exactly what the animal is allergic to can be made in two ways:

- Allergy testing (intradermal or blood testing)
- Eliminating things individually from the animal's environment until the culprit is isolated (the method most often used when food allergies are suspected). In some instances, it may not be necessary to determine the exact allergen causing the problem.

For example, a dog may start chewing his feet, scratching his sides, and rubbing his face on furniture every year for three weeks during the same month. These are often the signs of a seasonal allergy to something such as ragweed or tree pollen. In this case, the veterinarian may choose either tablets and/or a single injection that will suppress the allergy for the 3-4 weeks necessary when that allergen is in the environment. After a short treatment period, the animal is back to normal and only has to wait until the following year when he will be returned to the veterinarian with the same problem.

## How can Naturediet help?

Naturediet has developed a range of products to help with specific problems of dogs.

Naturediet Sensitive can be used as the first stage of eliminating causes of allergies: this recipe contains only salmon, which is very easy to digest.

Additionally three premium range foods Naturediet Fish, Naturediet Lamb and Naturediet Chicken have also been shown to be particularly beneficial in the alleviation of the symptoms of allergies as they are free from chemical additives and are all single source protein meals i.e. do not contain any meat or bone other than that stated on the recipe, thereby eliminating the variety of ingredients commonly seen in most commercial pet foods.

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