# What is it?

AD is defined as an allergy to environmental allergens such as pollens, molds, dander (shed skin cells), house dust, tobacco smoke, etc.

# What causes it?

The tendency to develop AD is thought to be genetic in nature, since AD occurs more frequently in certain breeds and lines.

## Signs & Symptoms

The main symptom of AD is itching, which typically presents between 6 months and 3 years.

In early, mild cases, this itching can be expressed as foot-licking, face-rubbing, ear problems, and scratching behind elbows, even without visible causes such as fleas or foreign bodies such as plant material caught in the coat.

This itching can be seasonal. As the disease progresses, this itching spreads to other areas of the body, and may become year-round instead of seasonal.

# **Treatment:**

As mentioned above, treatment begins with minimizing contact with the identified allergen(s), if possible. Also, a series of injections of small amounts of the allergen can be performed to gradually desensitize the dog to the allergen(s).

If superinfection from bacteria or yeast is identified, then eradication or minimizing the presence of the superinfection by using topical (such as shampoo, lotion/cream) or oral antifungal or antibiotic is often used.

### Testing

#### How is it diagnosed?

To a veterinarian, AD is diagnosed when a combination of criteria are fulfilled. There is the typical history of itching, as described above, often seasonal if pollens are involved. Examination reveals typical skin lesions over affected areas of the body. Importantly, the veterinarian also must exclude other primary causes of itching, including mange mites, ringworm, bacterial infection, or fleas, as reasons for itching.

It is noteworthy that dogs with AD are often allergic to many allergens, including food allergy. In addition, added inflammation from scratching and chewing of AD skin makes the affected skin more prone to bacterial or yeast infections, which in turn causes more itching. For the reasons described above, the veterinarian will often do a skin scraping to examine under the microscope and/ or culture during his/her exam. Once the diagnosis is made, he/she may also conduct additional testing to help determine which substance (s) are triggering the symptoms. These tests may include intradermal skin allergy test and serum/blood skin allergy test. The goal would be to minimize exposure to these allergens if at all possible.

Antihistamines can be used to help with the itching. And systemic steroids or the powerful immunosuppressive cyclosporine can also be used. However, it is important to note that all these medications can themselves present with a range of side effects, including drowsiness to renal compromise, and even a higher risk of infections. It is essential to be able to recognize the potential side effects with these medications, and also visit the veterinarian on a regular basis as recommended. The newest agent available is oclacitimib. It is essential to consult with the veterinarian or a dermatologist for evaluation to see whether any of these medications, or a combination thereof, would be appropriate for your dog.

