

# FAIRFIELD COUNTY ALLERGY, ASTHMA & IMMUNOLOGY ASSOCIATES, P.C.

ADULT AND PEDIATRIC ALLERGY, ASTHMA AND CLINICAL IMMUNOLOGY

DIPLOMATES OF THE AMERICAN BOARD OF ALLERGY & IMMUNOLOGY

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## CAT & DOG ALLERGIES

Allergies to cats and dogs occur in as much as 15% of the population, but vary greatly in severity. Some individuals develop mild itchy eyes on close contact with animals and no treatment is necessary; others develop severe nasal congestion and asthma after brief contact with an animal. In general, cats produce more severe allergies than dogs, but this does not hold true for everyone. In recent years, more research has been done with cat allergy. It is likely however that what has recently been learned about cat allergy will eventually be relevant for dog allergy as well.

Cat allergy is caused by a protein (an allergen) that is secreted mostly by the cat's salivary glands, i.e., large amounts of cat allergen are in the cat's saliva. When the cat grooms itself, the cat allergen gets into the cat's hair. People are not allergic to the hair of the animal. The allergen gets carried in the air on very small particles, which cannot be seen and lands on the lining of the eyes (conjunctiva), nose and lungs. This leads to inflammation, which causes allergic symptoms. Contact with skin can also cause itching and hives, for example when a cat licks you.

There are a number of issues that make cat and dog allergy very confusing. All allergies tend to be variable over time, but the reason for this variability is only partially understood. An allergic reaction to a cat or dog can be much more severe if other allergens (such as seasonal pollens or dust mites) are causing symptoms at the same time. Viral infections can also aggravate allergies to animals. In addition, individual variability involving the area of the body affected exists. Some individuals are predominately bothered in their eyes and nose while others may have an asthmatic reaction. The location of symptoms in an individual can even change over years. When one is exposed to an animal intermittently, allergic symptoms can come on very quickly (within minutes) or the symptoms may build up slowly over a number of hours and be most severe 12 hours later, long after contact with the animal has ended. If you are living with an animal, then the relationship between exposure to the animal and your allergy symptoms may not be at all clear. If you are inhaling small amounts of animal allergen for 8-12 hours a day, the result may be chronic inflammation in your air passages that can take a number of weeks or even months to totally disappear once you are in an animal-free environment.

The diagnosis of animal allergy is usually made with the assistance of skin tests. A blood test (such as a RAST test) can also be done but blood tests are not as sensitive nor as accurate as skin tests and are usually more expensive. Part of your allergy evaluation will include tests for other indoor and outdoor allergens that might also be causing allergic symptoms. If you are exposed significantly to an animal, have allergy symptoms and have a positive skin test, it is highly likely that the animal is contributing to your allergy symptoms.

### Treatment of Cat and Dog Allergy

#### **(1) Environmental Control**

A cat or dog produces a certain amount of allergen each week. The amount of allergen varies greatly from animal to animal. As far as we know, there is no particular cat or dog breed that is better than any other, i.e., there is no such thing as an hypoallergenic dog or cat. Individual variation between animals and perhaps the size of the animal may be more important when dealing with cats. This is why you may have more trouble with one cat as opposed to another. With dogs, it seems as though individuals may be allergic to certain breeds of dogs and not other breeds. It may take years of exposure to an animal before allergy symptoms develop. At this time, it is not possible to know in advance which breed(s) of dogs to one is allergic. It is very unfortunate when after living with a cat or a dog for years allergy symptoms to develop. Once again, as far as we know, there is not a particular cat or dog breed that is better than any other in an allergic individual.

One particularly troublesome aspect of animal allergy is that the allergen progressively accumulates in reservoirs such as carpeting, mattresses and vertical and other horizontal surfaces of a room such as walls. The total amount of allergen that resides in these reservoirs greatly exceeds what is in the air at any time. The amount of allergen in the air varies greatly depending on the disturbance of the air and the agitation of the

reservoirs. This is why air filtration is of limited value. It is important to clean off surfaces with a damp cloth and wash curtains and other fabric within a room.

Of particular concerns are cushions, mattresses and carpeting, which cannot be easily cleaned. The particles that cause allergy are so small that they go right through the fabrics and cloth fabric covers so it is helpful to enclose mattresses and cushions with plastic covers which can be zip closed to prevent the allergen from coming out. Carpeting is even more of a problem and it is best to have scatter rugs that can be taken up and cleaned regularly. Vacuuming is of limited value because it can stir up small allergen particles, which generally are so small they go right through the vacuum cleaner. Special vacuum cleaners with filters may be of limited value. Cleaning wall-to-wall carpeting may also be of some benefit.

The best treatment for a cat or dog allergy is to remove the animal from the environment and avoid other kinds of contact whenever possible. Studies have shown that in spite of the existence of large reservoirs that contain allergen, the quantity of animal allergen in the indoor air will decline slowly over a period of weeks or months following removal of the animal. For reasons that we do not fully understand, certain homes can retain animal allergen for one year or more after removal of the animal. A lack of ventilation in energy efficient houses may be an important factor in the persistence of allergen in these homes.

If you decide to keep an animal to which you are allergic then it should be kept outside of the house as much as possible and it should be kept totally out of the bedroom. There is now some evidence that washing an animal weekly will reduce the amount of allergen that is given off into the environment. There are no special sprays or hair treatments currently available that inactivate the allergen. You should consult with your veterinarian for advice regarding care of your animal's fur to prevent excessive dryness if you are washing the animal regularly.

## **(2) Medication**

Various kinds of medications can be used to control your allergy. Medications can be taken to either prevent symptoms when you are exposed regularly or exposed at a predictable time or to treat symptoms that occur during unavoidable or unexpected exposure. One serious concern about the use of effective medications is that these medications may permit you to stay much longer in an unhealthy environment. Even very effective medications may not adequately suppress severe allergic symptoms if the exposure is prolonged. In other words, medication may give you a false sense of security and you may be worse off in the long run. Once again, the best treatment for a cat or dog allergy is to remove the pet!

## **(3) Immunotherapy or Desensitization (Allergy Shots) for Cat and Dog Allergy**

Allergy shots or immunotherapy is a form of therapy, which has a beneficial effect over a period of many months in certain individuals. The success rate of immunotherapy in cat and dog allergy is probably much greater if there is not a constant exposure to the animal in the environment especially until the allergy shots are effective (6 months to 1 year). Allergy immunotherapy works better to protect against unavoidable intermittent exposure to cats or dogs rather than to reduce chronic symptoms produced by living with an animal. Immunotherapy has important side effects, which are severe very rarely. For these reasons, it is usually not considered a first option. At present, the immunizing material that is used for cat is much better standardized than it is for dog. Therefore, cat allergy shots may be more effective than dog allergy shots at this time.

In conclusion, the best treatment for a cat or dog allergy needs to be individualized depending on the patient and the situation. All options will be discussed at great length during your evaluation.

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