



Cat/ Dog Allergens

Question: What is cat/ dog dander and why is it a threat to humans with allergies?

Cat/ dog dander remains a mystery to some people and poses a threat to those of us who suffer from allergies. Here are the details on what cat/dog dander is, the mystery of Fel D1/ Can f1, and how and why it affects allergy victims.

Answer: For years, it was thought by many people that cat/ dog hair was the source of allergens. Later, it was recognized that cat *dander* was the cause, but many cat/ dog lovers confused the term with "dandruff," which is visible to the eye.

Cat/ dog dander consists of microscopic pieces of dry cat skin which becomes airborne, landing on bedding, curtains, carpeting, and other surfaces, including humans' skin and clothing. Cat dander particles are tiny, about 1/10th the size of dust mites. Dry skin particles wouldn't be particularly allergenic except for this factor:

Fel D1 (Fel d-1, Fel d 1) Fel D1 may come from the Latin *Felis Domestica*. It is a glycoprotein found in the cat's sebaceous glands under the skin, to a lesser degree in cats' saliva, and in cats' urine. When a cat grooms his coat, the Fel D1 present in his saliva lands on the cats' skin and hairs, and combined with the Fel D1 from the sebaceous glands, creates a sort of "double whammy" to allergy sufferers.

Interestingly, the production of Fel D1 appears to be more or less prolific in different types of cats: Whole cats produce more Fel D1 than neutered cats. Male cats, particularly unaltered, produce more allergens than female cats. Some cat breeds produce substantially less Fel D1 than others.

What Causes the Allergic Reaction to Fel D1/ Can f1?

When challenged by an allergen, the bodies of people with sensitized immune systems consider the allergen to be an invader, and produce an antibody called *immunoglobulin E* (AKA IgE).

Thereafter, when exposed again to Fel D1, the immune system is launched, which then releases an inflammatory chemical known as *histamine*. Most of us recognize that name, if only because of the huge number of antihistamines sold over the counter, which are commonly used to treat hay fever symptoms.

Animal allergens may affect allergy patients in a number of different ways:

- **Inhaled Through the Nose**
The allergic reaction may be violent sneezing, and or the chronic condition called [allergic](#)

[rhinitis](#), AKA "hay fever," which manifests with sneezing, accompanied by a runny nose, itching inside the nose, nasal congestion, and sometimes sinus congestion.

- **Inhaled Through the Nose and Mouth**

Dander inhaled into the bronchial tubes and the lungs can trigger [asthma](#) attacks, which are uncomfortable and even dangerous. Asthma sufferers should always consult with their allergists and should undergo allergy testing before getting a cat. About 30-40% of children/young adults with asthma are allergic to animal dander (primarily cats). For more information, read this article from the [American Academy of Allergy, Asthma and Immunology](#).

- **Skin Rash or [Hives](#)**

Although allergies cause only about five to ten percent of chronic hives cases, they are almost always associated with pet dander, and more often with cat dander.

Minor skin rashes may be associated with dander falling on the skin, saliva deposited by a cat's licking the skin, or even through inhaling the dander. Atopic dermatitis (Eczema) may be exacerbated by exposure to cats.

Although cat/dog dander is a real threat to allergy victims, some animal lovers are able to cope with their allergies well enough to live in relative comfort with them. Please read all you can on associated articles to fully understand the issue and consequences.

