Pet Allergy

It’s more manageable than you think.

The basics

We love our pets, and they love us. Over half of all homes in the US have a cat or dog, accounting for 100 million pets. A dog or cat quickly becomes a member of the family, and unfortunately, many allergic animal lovers find themselves facing the daily discomfort of persistent allergy symptoms.

About 5-10% of Americans are allergic to pet allergens. The most sensitive individuals may suffer greatly from the slightest exposure to animal dander, and reactions to cat dander can be particularly explosive. But homes aren’t the only high-dander environments.

Sensitive individuals may display reactions at work and other public places due to the presence of pet dander. Reactions may occur at home, in hotel rooms and friends’ homes, even if a pet is not present at the time. Where pets are in residence, dander will concentrate in local reservoirs such as curtains, upholstery, rugs, clothing, bedding and air ducts, which are constant sources of allergen, even when the pets and their families have moved on to a new home.

Interestingly, dander may be inadvertently transported by pet owners to animal-free locations. In these instances, exposure is often indirect (allergen in ventilation systems, or dander attached to people).

Continuous exposure may lead to the mysterious onset of allergy symptoms without an obvious cause. And worse, untreated animal dander allergy may silently trigger difficult-to-manage asthma, allergic sinusitis or allergic rhinitis.
Who’s at risk?
Heredity plays a key role, as pet allergy often runs in families. If either parent suffers from pet allergies, the chance of a child developing the condition significantly increases. **If both parents are allergic, the risk of a child developing allergy can occur in up to 80% of their offspring.**

What does “dander” mean?
Most people believe airborne pet fur/hair causes allergy symptoms, which is not actually the case. Airborne saliva and urine-derived proteins are a major source of pet allergen.

Sebaceous glands in the skin also produce these protein allergens. Male cats and dogs have greater amounts of secretion and are often more allergenic than females or neutered males.

Desquamated (epithelium (shed upper layer of skin) and saliva are rich in water-soluble protein, which causes allergic reactions. Pet hair alone has little water-soluble protein, with the exception of deposited saliva, which occurs when a pet licks its fur.

While the fur/hair may be coated with allergen proteins deposited from dried saliva, the **airborne microscopic flakes of animal dander from the skin remain the major source of pet allergen.**

How dander gets to you
Pet dander can cause allergy symptoms through indirect contact (airborne allergen inhaled into the nose and lungs) or by transfer of the dander directly to nasal and/or ocular mucosa by direct contact with pet allergen from contaminated hands or clothing.

Pet allergens can remain in a home for up to six months or more after a pet has been removed. Lower levels of animal dander allergen can even persist for years because of urine contamination (soaked into carpets, furniture, and floors), or dander in hidden areas (air ducts, basements, attics, and in and around furniture, closets and appliances).

Low levels of allergen may even be present as a result of a pet owned by a previous occupant of a dwelling, or furniture. Further, pet allergen may travel into your home or office on pet owners’ clothes or hair.

Common heating or air conditioning systems in apartment buildings may allow pet allergens present in one apartment to contaminate a nearby pet-free apartment via air ducts. Pet-dander-contaminated classrooms, offices, and mass transit are common sources of indirect exposure.

What about hypoallergenic pets?
There isn’t much scientific evidence in medical literature to suggest that any dog or cat currently available is non-allergenic. As long as cats and dogs have allergen proteins in their skin, saliva, blood and urine, exposure can aggravate allergies. Nevertheless, small dogs that lack a winter or second coat (terriers and poodles) that shed less dander (along with some hybrid breeds) may offer reduced allergen exposure. Also, a recently developed hypoallergenic cat (for about $5000) may offer a better-tolerated hypoallergenic alternative.

“Hypoallergenic” indicates less or lowered capacity to cause allergy. However, until scientific evidence confirms the presence of low specific-pet allergen production, labeling an animal as “hypoallergenic” is not necessarily helpful or accurate.
While certain cat breeds may produce fewer potent allergens—such as the Siberian and Russian Blue—a cat or dog with low allergenicity can still provoke serious allergy symptoms in a highly-sensitive individual.

**Does pet allergy fade?**
Allergy to household pets can either diminish or increase over time. For example, when college students return home after a long absence, they may experience a flare of allergy symptoms following re-exposure to their pets. Living with a cat or dog can, over time, lead to some desensitization or just the opposite effect—increased sensitivity to shed allergens. Unfortunately, this process is entirely unpredictable.

**Cat allergy explained**
The major cat allergen is Fel d 1, found in saliva, blood albumen, urine, dander, and sebaceous gland excretions. Cat allergy is more common than dog allergy and generally more severe. In fact, cat hypersensitivity can affect up to 25% of all allergy sufferers.

Feline allergens are produced in large amounts, particularly from male non-neutered cats. The dander is extremely light in weight, small in size, constantly mobile, very sticky, and carried far and wide by pet owners.

**Dog allergy explained**
Dog dander is rich in Can f 1 or Can f 2 allergens (the Can f 1 allergen is higher in non-neutered males). Dogs with a second winter coat (for example, large working dogs) may cause more indoor hair pollution than short-haired, single-coat dogs such as terriers or poodles. Mixed-breed or hybrid small dogs may have even less hair, producing less indoor contamination.

However, there is no such thing as a non-allergenic dog, and even a “hypoallergenic” breed is a serious health risk to highly sensitivie patients. Washing your dog once or twice a week, cleaning your dog with Allerpet, or wiping down the coat with a damp microfiber may diminish dander concentration.

**Symptoms of pet allergy**
Some pet owners will have sudden and dramatic symptoms when exposed to cats or dogs, while others suffer from persistent low-grade symptoms that only clear up after days or weeks away from their homes.

Highly sensitive individuals may have trouble controlling symptoms, even with comprehensive medical treatment. Chronic exposure to pet dander among allergy sufferers can lead to worsening of sinusitis, asthma, nasal allergy, eye allergy, sleep apnea and snoring, eczema and contact hives.

Exposure to cat or dog dander may worsen other allergic reactions, even seasonal allergy. For example, exposure to a cat or dog during the winter may worsen spring and fall seasonal allergy symptoms, as the immune system may be “primed” or activated due to year-round allergen exposure. Some individuals originally allergic to pets, may, over time, become “immune” or desensitized to dander from their own pets. However, in others, allergic reactions to one’s pet can worsen over time.

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**How to reduce dander**

- Eliminate or minimize animal allergen exposure
- Neuter male cats and dogs to lower their allergen production.
- Vacuum with a good HEPA filter vacuum cleaner twice a week.
- Wash hands immediately after contact with pets.
- Avoid rubbing eyes and nose when around pets
- Use a steam vapor cleaner to clean your home, rugs and upholstery.
- Put filters on bedroom ventilation grids.
- Washing pets twice a week can reduce allergens by 85%. Also, use a damp micro fiber cloth to rub down pets regularly.
- Confine pets to one room of the house.
- Remove allergens from your home or work environment when possible.
- Keep pets out of sleeping areas. Close bedroom doors and run HEPA filter air cleaners.
- Wash bedding in hot water once per week.
- Clean floors and walls with electrostatic cloths like the Swiffer, or Grab-It products which attract and hold pet hair and dander.
- **Immunotherapy.** Allergy injection therapy is unique in that it can specifically lower one’s sensitivity to a pet.
- See additional medical treatment at right.

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Treatment

Although pet allergy symptoms may diminish through avoidance and cleaning, it may not be possible to adequately limit pet allergen exposure for all patients. Further, exposure to pet allergen from unknown sources, or sources outside of one’s control may lead to persistence of symptoms. Under these circumstances, medical treatment and allergy shots may effectively control pet allergy symptoms when other measures fail.

Treatment options include medications and immunotherapy (allergy shots.)

Medications

- Oral antihistamines: (e.g. Clarinex, Claritin, loratadine, Zyrtec, Xyzal, Allergra, fexofenadine, etc.)
- Nasal sprays: Antihistamines, mast-cell stabilizers, corticosteroids (e.g. Nasalcrom, Astepro, Patanase, Nasonex, Veramyst, Nasacort, Omnaris)
- Eye drops: Antihistamines, mast cell inhibitor, corticosteroids, (e.g. cromolyn sodium, Pataday, Optivar, Alrex)
- Leukotriene modifiers (e.g. Singulair, Accolate, Zyflo)
- Nasal sinus rinse with saline
- Asthma medications: Advair, Symbicort, Asmanex, Proventil, Proair
- Xolair (omalizumab) for severe allergic asthma (anti-IgE injection specifically)

Immunotherapy

Allergy shots (or immunotherapy) are a unique form of treatment which specifically lowers the patient’s sensitivity to his or her pet and can work well where other forms of therapy prove inadequate.

This treatment consists of a series of injections containing specific allergens to cat or dog. Injections are administered over a long period of time, beginning with tiny doses which are gradually increased to induce immunologic tolerance to the pet. Initially, the dose is diluted enough so as not provoke an allergic reaction. Over time, an increased dose results in growing tolerance to the pet allergen exposure.

Immunotherapy is highly recommended if a pet in the home causes frequent symptoms that avoidance and medications cannot properly manage. A unique benefit of immunotherapy is that decreased allergy symptoms may persist long after immunotherapy is discontinued, indicating the long-term benefit of this treatment.

When a pet cannot be removed from the home and continues to cause significant allergy symptoms despite good environmental controls and use of medication, immunotherapy becomes the treatment of choice.

About SLIT

Injection or subcutaneous immunotherapy is the recommended treatment at this time for the induction of tolerance. SLIT or (sublingual immunotherapy) is not FDA-approved for therapy and therefore at this time, cannot be recommended as a legitimate treatment for pet allergy.

Animal allergens don’t originate from their fur, but from their saliva and skin. Because cats clean themselves frequently, their saliva dries on their fur, flaking off to become an airborne allergen that finds its way into every aspect of your life.