

## Asthma and Pets

Q: My child has asthma. Shall we get rid of our cat and dog?

A: If they are truly allergic to the pet, minimize their exposure. One-third of homes have a dog or cat, but about one-fourth of the population is allergic to cats, and perhaps 10% are allergic to dogs. If your child has asthma, first obtain allergen skin testing or a measurement of specific IgE blood levels to see if s/he has become sensitized to the pet. Note that these tests are wrong about 10% of the time (the test is negative, but later testing shows that the person is truly allergic to the pet). If none of you are allergic to the family pet, then its presence in the home is probably not related to rhinitis or asthma in family members -- and you may all happily co-exist.

If your child is positive to Fel d I (the cat antigen), make every effort to find another home for the cat(s). Over the next year, your child will almost certainly obtain better asthma control with fewer medications. The same advice applies for those sensitive to Can f I, the dog allergen which accounts for at least half of the allergenic activity in dog hair, saliva, and dander.

Once the pet has found another home, you still have a lot of work ahead of you to reduce the heavy load of allergen remaining in the home. Cat allergen is very sticky and very small, so it is very difficult to remove from a house or apartment, and is often measurable for more than a year after a cat leaves the home. Carpeting, bedding, and upholstered furniture are massive reservoirs of cat allergen. If you are truly serious about improving your child's asthma control, pay someone to remove the carpeting from the child's bedroom floor. Hopefully an attractive wooden floor will be hidden underneath, otherwise install ceramic tile, or laminate wood-appearing floor (applied without adhesives), or less expensive vinyl flooring. If finished cement is under the carpet, consider staining the cement and using a washable throw rug next to the bed. HEPA vacuum the room and all soft surfaces (like couches, upholstered chairs and drapes). Clean all the hard surfaces (walls, cabinets, and ceiling) with detergent. Replace bed covers (bedspread, comforter or duvet cover) that the pet used to sleep on; wash all the bedding and curtains twice; and encase the mattress and pillows with allergen covers. Remove upholstered furniture from the bedroom.

There is no hope of reducing the levels of cat allergen in a room with wall-to-wall carpeting. Every time you walk on the carpet or vacuum it, clouds of antigens are aerosolized, ready to be inhaled by anyone in the room during the next hour. The next time you see a beam of sunlight coming into the room, stomp on the carpet (or whack your mattress or sofa) and you will see the cloud of particles that are "kicked up." Cat allergen remains airborne after such a disturbance, much longer than any other allergen. Attempts at cleaning the wall-to-wall carpets or "treating" them with a chemical are a waste of money, and the moisture left behind by steam cleaning often worsens the growth of mold and mites in the carpeting. Unlike mite and mold antigen, cat antigen is not destroyed by steam cleaning or hot water washing.

About one-third of parents fail to follow the above advice from an allergist. If you don't own the home and can't get the landlord to allow you to remove the bedroom carpet, or simply don't have the money to do so, then you can have it covered with a thick plastic, and this may help. If you simply cannot part with the offending pet, then at least put an automatic door closer on your child's bedroom door and keep the pet out of that bedroom. Also buy a \$150 HEPA room air cleaner and run it non-stop in the bedroom. Install a separate heater or air conditioner (or heat exchanger) that only serves that bedroom. The child will remain exposed to the pet allergen in other rooms of the house (especially the TV room). Researchers have found cat antigen levels high enough to worsen asthma in classrooms where a cat has never ventured, because the antigen is carried on the clothes and hair of children who have cats at home.

All cats shed "tons" of cat antigen and all dogs shed dog antigen. There are small differences from breed to breed and males versus females in the amount of antigen shed, but these differences are not enough to make a substantial difference in asthma control to those who have become sensitized to their pet. Getting someone to wash the pet weekly will only slightly reduce their allergen shedding. Spraying the animal with Allerpet-C will not work.

Allergists believe that they can desensitize patients to cat or dog allergen, but it takes a year of weekly allergy shots to see if this approach is effective.