Flea Bite Allergy

ABOUT THE DIAGNOSIS

When a dog or cat has fleas, the degree of itchiness and discomfort is often very different from one individual to the next. This variability exists because some dogs and cats are allergic to flea bites whereas others are not. Flea bite allergy (also called flea bite dermatosis, flea allergy dermatitis, or flea bite hypersensitivity) is a common skin condition in dogs and cats. It occurs when a flea bites an animal that is allergic (*hypersensitive*) to one or more proteins (*allergens*) in the flea's saliva. Nonallergic animals usually develop very mild itchiness at the site of a flea bite for only a brief time after the flea bite. However, animals with flea bite allergy can develop intense itchiness anywhere on the body, regardless of where the flea bite occurred, and the intensity of the itchiness tends to progressively worsen with continued exposure to fleas, leading to hair loss and other skin problems including skin infections (pyoderma). One or two flea bites every week can be enough to trigger and perpetuate an allergic reaction and near-constant itching. Animals of any age can develop flea bite allergy, but it typically begins in dogs and cats that are 1 to 5 years old. It most often occurs in the summer but can occur year-round in more tropical or subtropical climates since warm weather favors flea reproduction.

Veterinarians often diagnose flea bite allergy based on symptoms, evidence of fleas in the haircoat, and improvement of the animal's symptoms with treatment. Evidence of fleas consists of finding adult fleas, "flea dirt" (brown-black specks that consist of flea excrement containing digested blood) and/or flea eggs (white specks) on the affected pet or other pets in the household. Animals with flea bite allergy often have only a few fleas or sometimes no fleas on them at all at the time of examination because the fleas are often dislodged as a result of the animal's excessive scratching, chewing, and licking of the skin. For these suspect cases where fleas are not found, an intradermal skin test and a blood test are available to help confirm a diagnosis of flea bite allergy, but these tests are not 100% accurate. A positive result confirms flea bite allergy, but an animal that tests negative on either test could still have flea bite allergy in some instances. A more practical approach is to treat the pet with anti-flea products very consistently for a period of several months in a row and monitor for improvement. Other tests may be necessary to eliminate other causes of skin disease and itchiness because several types of skin diseases unrelated to fleas can produce a similar degree of itchiness and the same symptoms overall, but require entirely different forms of treatment.

LIVING WITH THE DIAGNOSIS

Dogs: Symptoms of flea bite allergy consist almost entirely of scratching of the skin and the consequences of damage to the skin if itchiness is severe. The intensity and extent of scratching can be variable in degree, from mild to severe, and generally worsen over time as the dog ages. Areas of skin most often affected are on the lower back, tail head (where the tail attaches to the body), hind legs, and belly, although the dog's entire body may be affected in severe cases. The affected skin is very itchy and may show small bumps, scabs, abrasions, redness, and hair loss; the inflamed skin may become infected with bacteria. Some dogs may develop a "**hot spot**" lesion (acute moist dermatitis), which is a well-demarcated patch of very inflamed, moist, hairless skin caused by the animal's excessive chewing, licking, and scratching of that particular area. The animal's skin may thicken and darken from repeated scratching and chewing.

Cats: Symptoms of flea bite allergy can be variable in cats. Cats may have a skin lesion pattern similar to dogs as described above, but more often cats with flea bite allergy develop little bumps and scabs around the head, neck, and belly (miliary dermatitis). Some cats develop a round, reddish-yellow plaque (eosinophilic plaque or granuloma) on the groin area, belly, or inside part of the hind legs. The affected skin is usually very itchy; cats may scratch and or lick these areas of skin excessively, causing hair loss. Some cats have a symmetric loss of hair affecting the mid to lower back and hind legs, with no other obvious signs of skin irritation (symmetric alopecia). Cat owners may often think that the itchiness is simply normal grooming behavior, and the most common tip-off that flea bite allergy exists is visible loss of hair from excessive licking of an area of the skin.

TREATMENT

Treatment and prevention of flea bite allergy consist of taking measures to prevent an allergic pet from being bitten by fleas. This usually requires the elimination of fleas from the flea-allergic pet, the pet's immediate environment (yard, house), and other dogs and cats in the household with products that kill the adult flea (adulticide therapy) and prevent fleas from reproducing (insect growth regulators). Flea collars are usually not effective as used alone. In the past, extensive spraying of the home and premises was common, but nowadays, oral or topical (applied to the skin) prescription anti-flea products are given to the pet at home once or twice a month and are very effective. Be sure to use the treatments exactly as prescribed; misuse, or using over-the-counter (nonprescription products from a grocery store or pet store, for example) rather than prescription products, are common reasons for failure to eliminate fleas. All pets in the house need treatment, even if only one is itchy.

Your veterinarian may also prescribe antiinflammatory medication such as corticosteroids (cortisone-like medications), antihistamines—usually given orally, or similar treatments on a short-term basis, to decrease the allergic response in the skin and provide immediate relief from itchiness. These should only be used very short term, until the fleas can be eliminated from the environment. Orally administered antibiotics may be needed if there is a bacterial skin infection (pyoderma). Much less preferable is the long-term use of antiinflammatory medication, which is associated with greater negative side effects. In rare cases, such treatment is used if it is not possible to prevent exposure to fleas.

The expected outcome with flea bite allergy is good: virtually all affected dogs and cats can be relieved of itchiness and the constant desire to scratch, but only if flea elimination is pursued regularly and correctly. All allergic reactions can be triggered by a single re-exposure, so **one flea bite can set back days or weeks of successful care**. For this reason, it is essential to continue to give anti-flea medications as prescribed, whether they seem to be working (stopping prematurely can lead to a recurrence of itching and scratching) or even if they do not seem to be working (it may take several weeks for the allergic reaction to subside, and stopping treatment only allows fleas to return). Successful treatment leads to a comfortable pet and less scratching that is bothersome to the pet and to the family.

DOs

- Remember that just one flea bite can make an allergic pet itchy for a week; you might not be able to see any fleas and yet still have a pet suffering from flea allergies.
- Consult with your veterinarian about treatment options for your pet. Several excellent, safe prescription products are now available. If there are many fleas visible, it may be necessary to treat the home/yard (self-care, professional exterminator, alternatives to insecticides such as diatomaceous earth) in addition to the pet(s).
- Use insecticides according to directions and with caution around pets and people.
- Discuss with your veterinarian the possibility of a second opinion from a veterinarian specialized in skin disorders (veterinary dermatologist; www.acvd.org in North America; www.ecvd.org in Europe) if the problem is persistent, severe, or complicated, or if it is not clear whether fleas are the sole cause of the symptoms.

DON'Ts

- Do not use flea products containing permethrin, pyrethroids, or chrysanthemum derivatives on cats (potentially severely toxic). For cats, ONLY use products approved for use on cats.
- Do not apply flea products designed for the environment on animals directly.
- Do not use home remedies such as garlic (which is toxic to pets) that are sometimes touted on the internet in place of established insecticide products.
- Do not assume fleas are not the problem just because no fleas are immediately visible.

WHEN TO CALL YOUR VETERINARIAN

- If the condition does not improve with appropriate treatment.
- If your pet has a reaction to any medication(s) or flea product(s). Signs of a reaction may include: drooling, vomiting, hives, abnormal behavior, restlessness, increased itchiness, and hair loss or irritation of the skin where a flea product was applied.

SIGNS TO WATCH FOR

As signs of a new or recurrent flea problem:

- Live fleas, flea dirt, or flea eggs on an affected pet, the pet's bedding, or other pets in the household; a flea comb can be very helpful in finding evidence of fleas on the pet.
- New bumps or scabs on the pet's skin; these may indicate a recurrence of the allergy.

Other information that may be useful: Related Client Education Sheets:

- Acute Moist Dermatitis ("Hot Spots")
- How to Deal With Incessant Scratching
- How to Deal With Severe, Self-Inflicted Skin Erosions

Practice Stamp or Name & Address

Also available in Spanish.