

# Allergic Skin Diseases of the Dog and Cat

*A PowerPage Presented By*



The most common allergic skin conditions of dogs and cats are (in order of frequency): Flea allergy dermatitis, atopic dermatitis, and food allergy. While in reality, many dogs will have a combination of 2 or all 3 conditions, you will often be asked on board exams to determine the most likely cause of a dog's pruritic signs and/or to choose the best treatment. This PowerPage will point out the important differences to look for in this type of question as well as the major treatment options for these diseases. You should not necessarily try to memorize and be able to recite the full list of treatment options for each disease; rather you should be able to recognize which disease these conditions belong to if presented in a multiple choice question. At the end of the PowerPage, there is a list of the major flea control products for your reference.

## Key Points

- Pruritus - A sensation that elicits the desire to scratch
- Pruritus is the predominant clinical sign of allergic skin disease
- Pruritus is the most common reason for a dog to be presented to a veterinary hospital

## Key Clinical Features

### Signalment

- There are predisposed breeds but do not count on them to help you with this diagnosis
- FAD - No age predilection; usually over 6 months of age
- Atopy - Usually 1.5 to 3 years (full range 6 mos. to 6 years)
- Food allergy - Any age, often < 2 years

### Seasonality and speed of onset of clinical signs

- FAD - rapid onset, often in warm weather
- Atopy - Usually gradual onset, often starts in summer and as it worsens, signs in spring, fall
- Food allergy - Usually gradual onset, occasionally more rapid, no seasonality

### Lesions in Dogs

Lesions tend to be similar with all three of these diseases, consisting of erythema, excoriations, alopecia; the distribution can be helpful:

- FAD - caudal half of the body around dorsal lumbosacral region, tailbase, perineum, thighs, umbilicus
- Atopy - Face, paws, distal extremities, ears, ventrum
- Food allergy - Same as atopy: face, paws, extremities, ears, ventrum

### Lesions in Cats

Lesion of miliary dermatitis (diffuse crusted papules) excoriations, eosinophilic plaques

- FAD - Dorsum, perineum, medial & caudal thighs
- Atopy - Head, neck, paws, distal extremities, ears, ventrum
- Food allergy - Often head and neck, may be more generalized

## The Rule-Out Process

If you are unable to make a determination about the cause of pruritus, typically you should proceed this way:

1. Rule out flea allergy dermatitis first with 6-8 weeks of strict flea control for all animals in household
2. Simultaneously identify and treat concurrent secondary pyoderma, bacterial overgrowth and *Malassezia* dermatitis
3. Rule out food allergy with an 8-12 week strict elimination diet
4. Consider atopic dermatitis as a diagnosis of exclusion; then evaluate with intradermal testing or allergen-specific IgE serology

## Flea Control Products

- Imidacloprid (Advantage™), also available with 44% permethrin as "Advantix™".
- Fipronil & S-Methoprene (Frontline Plus™)
- Selamectin (Revolution™)
- Nitenpyram (Capstar™)
- Lufenuron (Program™), also available with milbemycin as (Sentinel™)
- Spinosad (Comfartis™)
- Dinotefuran, Permethrin & Pyriproxifen (Vectra 3D™)

## References and Links

### VIN Conference Proceedings Notes:

Peter Ihrke, Distinguishing Between Allergies:

<http://www.vin.com/Members/Proceedings/Proceedings.plx?CID=wsava2007&PID=pr18083&O=VIN>

Candace A. Sousa, Approach to the Diagnosis of the Pruritic Dog:

<http://www.vin.com/Members/Proceedings/Proceedings.plx?CID=abvp2005&PID=pr08817&O=VIN>

Peter Ihrke, How I Treat Flea Allergy Dermatitis in 2008:

<http://www.vin.com/Members/Proceedings/Proceedings.plx?CID=wsava2008&PID=pr24042&O=VIN>

