

ALLERGIES IN DOGS AND CATS

CAUSES:

There are three primary causes of allergies in dogs and cats.

- Flea saliva allergy
- Inhaled or percutaneous allergen allergy (also called atopy)
- Food adverse reaction allergy

The initial allergic reaction which cause symptoms in your pet may be perpetuated and worsened by secondary complications such as:

- Skin infections - both bacterial (pyoderma) and yeast (*Malassezia*) infections can infect the skin, ears and feet
- Skin mites – either *Sarcoptes mange*, *Demodex mange* or *Cheyletiella* (walking dandruff)
- Ringworm (dermatophytosis)
- Flea bite reaction – although flea bite saliva can be a primary allergen, it can also worsen symptoms when combined with atopy or food allergy

FLEA ALLERGY:

Patient Profile:

- Age of onset can be as young as 6 months old but commonly begins between 3-5 years of age
- No sex or breed predilection

Signs:

- Flea bite sensitivity causes a hive that itches which can lead to a crust or scab in the skin.
- Chronic itching can lead to hair-loss (alopecia), skin pigment changes (hyperpigmentation) and skin infections from self mutilation.
- The most common areas of the body affected are the neck, tail base and inner thighs.

Diagnosis:

- Distribution of lesions and finding flea dirt (digested blood) or fleas in the fur. Not finding live fleas does not rule out there is an allergy.
- Intradermal skin testing for skin reaction to flea saliva
- Response to treatment

Treatment:

- The single most effective therapy is controlling the flea population in the pet's environment.
- Using topical flea control such as Advantage, Frontline or Advantix to kill adult fleas thereby preventing the flea bite.
- Using an Insect Growth Regulator (IGR) such as Program or Sentinel to prevent fleas from breeding thereby diminishing the flea population in your pet's environment.
- Steroids, which are powerful anti-inflammatory medication, may be used during the acute flare-up to stop the allergic reaction.
- Hyposensitization (allergy shots) may be effective to desensitization your pet to the flea saliva.

FOOD ALLERGY:

Food adverse reactions most commonly present as continuous, non-seasonal pruritis (itchiness). No specific pattern of disease has been associated with food allergies in all animals, but otitis externa (ear infection) is a common presentation. In dogs, pruritic (itchy) skin, feet, and ears can occur. Head and face pruritis is common in cats. Gastrointestinal symptoms may be seen such as vomiting, diarrhea, bloating, gas, or soft stool. Food adverse reactions can occur in very young animals even puppies and kittens.

The only method to diagnose a food reaction is a food trial. Your pet is offered an elimination diet for 6 to 8 weeks. There are two types of commercial prescription diets that are available. One type of diet uses a novel protein and carbohydrate source that your pet has never been exposed to in the previous diet. The second type of diet is a hydrolyzed protein diet. This diet breaks the protein source down so the body does not recognize it as an allergen. If you prefer, a home cooked diet can be prepared by you. Despite the diet offered, your pet must not ingest anything except this food to truly evaluate its effectiveness. This means no treats, no chews, no flavored medications, or no human food during the trial period.

Once improvement in symptoms is noted, a provocation test may be done to confirm the diagnosis of a food allergy. A provocation test requires offering your pet the suspected food allergen and observing for reoccurrence of clinical signs. The true confirmation of a food allergy requires that feeding the offending diet can induce reoccurrence of symptoms. First the diet fed just before the food trial is offered to your pet. If clinical symptoms do not reoccur after 7 days, then treats or any other food fed prior to the food trial is offered. If no clinical signs occur then the food is likely not the cause of the allergic symptoms. If signs, generally pruritis, reoccur then your pet is put back on the elimination diet until the signs are resolved.

ATOPIC DERMATITIS:

Patient Profile:

- Age of onset generally begins between 6 months to 3 years of age, but can occur in animals as young as 2 months old and as old as 6 years.
- Breed predispositions do exist and severity of symptoms may be related to the region of the country these breeds live.
- Breeds at risk include Terriers, Golden retrievers and Labrador retrievers, Bulldogs, Boxers, Shar-pei and Dalmatians.

Signs:

- Signs may be seasonal or non-seasonal. Pets with seasonal symptoms tend to be worse Spring through Fall.
- The most common symptom is pruritis (itchiness) of the face, ears, paws, legs, and ventral body.
- Secondary signs associated with chronic licking include saliva staining (reddish staining of licked areas), hair thinning or loss (alopecia), increased pigmentation (hyperpigmentation) and thickening of skin (lichenification).
- Secondary infections caused by chronic licking and moisture can develop. Malassezia (yeast) and bacterial infections (pyoderma) can worsen the signs of pruritis.
- Sarcoptic mange mites can mimic the signs of atopy.
- Up to 30% of pets with atopy also have a concurrent food allergy.
- Otitis externa (ear infection) is a common finding in pets with atopy and food allergy.

Diagnosis:

- A blood test for the regional allergens can be done. Your pet must be off steroids for at least 4 weeks.
- Intradermal skin testing can be done by a dermatologist.

Treatment:

1. Avoidance:

- Requires determining the allergen causing the symptoms and avoiding contact.
- Commonly used to prevent flea allergy, food hypersensitivities and house dust mite allergy.

2. Topical Therapy:

- shampoo and cream rinses
- topical antihistamines
- topical steroids

3. Antihistamines such as Benadryl, Hydroxazine, Tavist 1.

4. Fatty Acids-omega 3 & 6

5. Steroids

- used for acute flare-up of symptoms
- quickly decreases pruritis and other signs of inflammation
- serious side effects can occur with prolonged use therefore periodic bloodwork may be needed
- short-term use can produce signs of increased thirst and urination (PU/PD), panting and increased appetite

6. Cyclosporin – inhibits the mediators in the immune system that cause inflammation and pruritis(itchiness).

7. Allergen specific immunotherapy – “Allergy Shots”

- can take up to 9-12 months to appreciate improvement
- approximately 60% of patients have decreased symptoms