



ATOPIC DERMATITIS

What is Atopic Dermatitis?

“Atopic” refers to “atopy”; atopy is another name for atopic dermatitis. “Dermatitis” is inflammation of the skin.

Atopic dermatitis is a form of skin inflammation due to a hypersensitivity reaction of the pet to normally harmless or innocuous substances, such as pollens (grasses, weeds, and trees), molds, house-dust mites, skin (epithelial) allergens, and other environmental allergens

The skin inflammation (dermatitis) is long term (chronic) and relapses are common; it is not contagious and is characterized by itchiness (known as “pruritus”).

What causes Atopic Dermatitis?

- Pollens (grasses, weeds, and trees)
- Mold spores (indoor and outdoor)
- Malassezia, a type of yeast found on the skin of animals
- House-dust mites
- Animal dander
- Insects (controversial)



Clinical Signs

- “Itching” as demonstrated by scratching, rubbing, and/or licking (itchiness is known as “pruritus”)
- Most skin changes caused by self-induced trauma (scratching, rubbing, licking, biting at skin)
- Areas of the face, feet, and under the front legs are affected commonly
- May have temporary response to steroids
- Lesions—vary from none to broken hairs or saliva discoloration of the hairs (giving a rust-brown appearance to light colored hair) to reddened skin; small, raised skin lesions (known as “papular reactions”); dried discharge on the surface of a skin lesion (known as a “crust”); hair loss (known as “alopecia”); darkened skin (known as “hyperpigmentation”); thickening and hardening of the skin, usually associated with hyperpigmentation (known as “lichenification”); and excessively oily or dry scaling of the skin (known as “seborrhea”)

- Signs may be seasonal initially
- Recurring skin and/or ear infections (may be bacterial and/or yeast infection)
- Inflammation of the moist tissues around the eye (known as “conjunctivitis”) may occur



How can it be treated?

Atopic Dermatitis can be managed through a variety of methods such as frequent bathing in cool water with shampoos designed to minimize itchiness, introducing a diet which is rich in essential fatty acids, medications (see below) and where possible, avoid substances (allergens) to which the pet is allergic.

What medications are available?

Immunotherapy (Hyposensitization or “Allergy Shots”)

- Administration (usually subcutaneous [SC] injections) of gradually increasing doses of the causative allergens to the affected pet in an attempt to reduce their sensitivity to the particular substance(s).
- Allergen selection—based on allergy test results, patient history, and knowledge of local plants that contribute pollen into the air.
- Indicated when it is desirable to avoid or reduce the amount of steroids required to control signs, when signs last longer than 4-6 months per year, or when nonsteroidal forms of therapy are ineffective
- Successfully reduces itchiness (pruritus) in 60-80% of dogs and cats. Response to “allergy shots” is usually slow, often requiring 3-6 months and up to 1 year to see full effect.

Cyclosporine

Cyclosporine (Atopica) is effective in controlling itchiness (pruritus) associated with long-term (chronic) allergic skin disease (atopic dermatitis); many pets can be controlled adequately long-term with less frequent dosing (such as every 2-4 days), as directed by your pet's veterinarian; frequent pet monitoring is recommended.

Steroids

Steroids may be given for short-term relief and to break the “itch-scratch cycle”. Should be tapered to the lowest dosage that adequately controls itchiness (pruritus), as directed by your pet’s veterinarian. Usually prednisolone or methylprednisolone tablets. Cats may need *methylprednisolone acetate* treatment, administered by infrequent injection.

Antihistamines

Antihistamines are known to be less effective than steroids as evidence of effectiveness is poor.

Dogs—antihistamines include *hydroxyzine*, *chlorpheniramine*, *diphenhydramine*, and *clemastine*.

Cats—*chlorpheniramine*; effectiveness estimated at 10-50%

Other Medications

- *Tricyclic antidepressants* (TCAs, such as doxepin or amitriptyline) have been given to dogs to control itchiness, but their overall effectiveness and mode of action is unclear; not extensively studied in the cat.
- *Topical triamcinolone spray* 0.015% (Genesis, Virbac) can be applied to the skin over large body surfaces to control itchiness (pruritus) with minimal side effects.

What follow-up care is needed?

Your pet should be examined every 2-8 weeks when a new course of treatment is started. This is so that we can monitor itchiness (pruritus); self-trauma, such as scratching or licking; skin infection; and possible adverse drug reactions. Once an acceptable level of control is achieved, your pet can be examined less frequently. Usually every 3-12 months, however this is solely dependent on the individual and the severity of their case.

In addition to this a complete blood count (CBC), serum chemistry profile, and urinalysis is recommended every 3-12 months for pets which are on long-term (chronic) steroid or cyclosporine therapy.

Prevention of Atopic Dermatitis

If the substances (allergens) to which the pet is allergic have been identified through allergy testing, the owner should undertake to reduce the pet’s exposure to these substances, as much as possible; however, reduction of exposure seldom makes a significant improvement on the level of the pet’s itchiness.

Minimising other sources of itchiness ([pruritus], such as fleas, adverse food reactions, and secondary skin infections) may reduce the level of itchiness.

Possible Complications

- Secondary skin infection or inflammation of the skin due to yeast (*Malassezia dermatitis*)
- Co-existent flea-bite allergy (hypersensitivity) and/or adverse food reaction

Common Breeds Affected

Dogs— can occur in any breed, including mixed-breed dogs, may be affected; recognized more frequently in certain breeds or families of dogs, which can vary geographically.

However there are some particular breeds which have been identified to have Atopic Dermatitis. The commonly affected dog breeds include the *Boston Terrier*, *Cairn Terrier*, *Dalmatian*, *English Bulldog*, *English setter*, *Irish setter*, *Lhasa Apso*, *Miniature Schnauzer*, *Pug*, *Sealyham Terrier*, *Scottish Terrier*, *West Highland White Terrier*, *Wirehaired Fox Terrier*, and *Golden Retriever*.

Cats— currently there are no breeds which appear to be more likely to develop allergic skin disease (atopic dermatitis).



Summary

Atopic Dermatitis is not life-threatening, unless itchiness (pruritus) is not responsive to the medical treatment provided and it becomes so disruptive that the result is euthanasia. This is usually only in severe cases which cannot be controlled and very rare. Some cases may resolve themselves spontaneously whereas others if left untreated, the degree of itchiness (pruritus) will worsen and the duration of signs will last longer each year of the pet’s life.