

Treatment Options for Allergies in Pets



Introduction: Pets with allergies to pollen, grass, or dust are affected with atopic dermatitis (environmental allergies), or atopy. In humans, environmental allergies cause symptoms such as runny eyes and sneezing, but animals with environmental allergies more commonly show symptoms such as scratching, licking of the feet, and recurrent skin and ear infections. These symptoms may appear only during certain times of the year if the main offending allergens are seasonal pollens, but can occur throughout the year if the allergens persist in the environment year round (such as housedust mites and human dander). Atopic dermatitis typically starts in dogs between the ages of 6 months to 5 years; in cats, atopy can occur at any age. In dogs, there is an increased incidence of allergies in certain breeds such as terriers, cocker spaniels, labradors, golden retrievers, shar-peis, and german shepherds, however, any breed can be affected. The diagnosis of atopy is made by considering the symptoms, seasonality, and response to medications. Additionally, measures must be taken to ensure no other similar itchy skin diseases such as food allergies, skin parasites, or skin infections are present. Once the clinical diagnosis of atopy has been made, treatment options include topical and/or oral medications or allergy testing and immunotherapy to treat the underlying cause of the itching.



Symptomatic Allergy Treatment: Allergic animals with mild or strictly seasonal symptoms can often be managed by just using medications to treat their symptoms. Symptomatic medications include topical products such as shampoos, conditioners, and sprays, as well as oral medications such as antihistamines, fatty acids, steroids, Apoquel, Cytopoint, and cyclosporine.

Topical therapy: Shampoos, conditioners, and sprays used for allergies usually contain

ingredients that help reduce itching such as oatmeal, topical anesthetics, antihistamines, or steroids. Allergic dogs benefit from frequent bathing not only because of the anti-itch ingredients, but because bathing helps to reduce environmental allergens that are accumulated on the skin and coat. Due to animal's skin pH differences compared to humans, topical products designed specifically for pets should be used. Weekly bathing and daily rinses or wipe-downs with a wet washcloth are usually recommended. It is important that the shampoos be gentle (avoid tar and benzoyl peroxide products unless the dog is very greasy) so that the skin and coat do not become dry. Note that topical products that contain steroids (such as hydrocortisone, betamethasone, and triamcinolone) should be used carefully. An excessive use of topical steroids can predispose a pet to skin infections and can cause the skin to become excessively thin or create blackheads.

Antihistamines: Oral antihistamines (such as Benadryl, cetirizine, clemastine, chlorpheniramine, and hydroxyzine) are helpful to reduce itching in 30-40% of allergic pets and help prevent flares. They are not as potent as other treatments, but also do not have unwanted side effects. No antihistamine is better or more potent than another. Just as in humans, multiple antihistamines often must be tried to find the best one for each individual pet. They also need to be consistently given two to three times daily for benefit, and the dose requirements for pets are usually higher than for people so it is important to ask your veterinarian about the right dose for your pet. In some pets, side effects can occur such as sleepiness or excitability. When buying over the counter antihistamines, it is very important to select products which only contain the active ingredient needed and do not contain pain killers or decongestants. Antihistamines may not be appropriate if pets have certain medical conditions such as seizures, glaucoma, hypertension, or urinary retention.



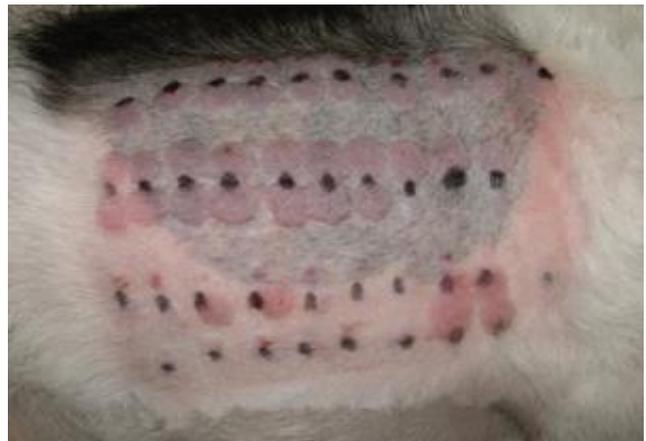
Fatty acids: Omega 3 and 6 essential fatty acids are derived from sources such as fish oil, flaxseed oil, and vegetable oils. They have mild anti-inflammatory effects on the skin, as well as improving skin dryness. They need to be given for 1-3 months before a beneficial effect is seen. An oral combination of omega 3 and omega 6 fatty acids appears to be ideal for treatment of allergic dermatitis in dogs. There are multiple combination products manufactured for pets, available in capsule, powder, liquid, or chewable tablet form. Fatty acids also work synergistically with antihistamines to help reduce skin inflammation and itching. They may not be appropriate for use in pets with other medical disorders such as high cholesterol or clotting problems.

Steroids: Injectable or oral steroids such as cortisone or prednisone have many pros and cons in the treatment of allergies in pets. They are inexpensive and work quickly and effectively to reduce itching and inflammation, and for short term use they are relatively safe. However, steroids have numerous side effects such as increased thirst, urination, hunger, and weight gain. With prolonged use at high doses, steroids may cause liver enlargement and increased liver enzymes, can cause high blood pressure and kidney disease, weakened muscles and ligaments, infections of the skin and bladder, and thinning of the skin and hair loss. Animals that are treated with long-term steroids should have physical examinations, bloodwork, and urine testing regularly to monitor side effects. Additionally, other options to treat their allergies and to reduce their dependence on steroids should be used if possible.

Cyclosporine: Cyclosporine (brand name Atopica) is an oral medication which can be used as a non-steroidal way to reduce allergic skin inflammation and itching. It is helpful in approximately 80% of allergic dogs to control itch, but is more expensive than steroids. Cyclosporine is given by mouth daily for 4-6 weeks, then the frequency of administration is slowly decreased to the lowest possible amount needed for comfort. Some animals need it daily, and in some the dose can be reduced to every 2-3 days. Cyclosporine has fewer side effects than steroids, but because it is still an immunosuppressive drug (it is used in human medicine to prevent organ transplant rejection), regular physical examinations with bloodwork and urine testing should be performed in pets on cyclosporine long term. Potential side effects include vomiting and diarrhea, and more rarely skin or internal infections and benign growths on the skin or gums.

Apoquel®: Apoquel (Oclacitinib) is an exciting, new, unique drug for treating itching associated with allergic dermatitis, especially atopy (environmental allergies). This novel non-steroidal drug is unique in that it targets a specific pathway involved in itching and inflammation. It has a rapid onset of action, with improvement generally seen within 1-2 days (improvement may take longer if concurrent infections are present and being treated). As it targets a pathway involved in itching, rather than affecting multiple areas of the immune system as steroids and Atopica® can, it is thought to be a safer drug than these alternatives. Additionally, it does not have the adverse effects that we can see with steroids. It is generally prescribed twice daily for a maximum of 14 days with a chronic maintenance dose of once daily if needed. It can be used for acute flares for short periods of time or long term as a maintenance therapy for non-seasonal environmental allergies. As this drug does still affect the immune system and does require a healthy liver to metabolize it, regular examinations as well as routine bloodwork and urine monitoring are recommended. This drug is contraindicated if there is a history of cancer or demodicosis (mange mites).

Allergy Testing and Desensitization: Allergy testing is performed in environmentally allergic pets not to make a diagnosis of allergies, but to indicate which allergens are to be included in desensitization therapy. Remember, the diagnosis of atopy is made by symptoms, response to medications, and eliminating the possibility of other itchy skin diseases such as food allergies or skin parasites/infections. Allergy testing and



desensitization (immunotherapy) are appropriate in animals with allergic symptoms that last longer than 2-3 months per year, in pets in which the symptomatic treatment for allergies is not helpful, or pets who require medications longer than 2-3 months out of a year. Allergy testing can be performed with a blood test (which is more convenient and can be performed by most primary care veterinarians, but may be less accurate than skin testing), or by intradermal/skin testing (performed by veterinary dermatologists) it requires light sedation and shaving a patch, and is considered the “gold standard” of allergy testing. Immunotherapy injections are given every 1-2 weeks or sublingual drops are given by mouth daily and are helpful in 70-75% of allergic pets to reduce symptoms and the need for medications. Allergy immunotherapy is usually a lifelong treatment and the degree of response to therapy varies with each individual animal. Some pets only need immunotherapy, some still need low doses of symptomatic medications such as antihistamines, and some still need other medications but at lower doses, less often, or only during certain seasons. Allergy immunotherapy addresses the cause of a pet’s itchy skin by changing/calming down the hyperactive immune response to the environmental allergens, but require time (2-18 months) for effect, so symptomatic medications are continued while immunotherapy has time to take effect.

Cytopoint: Cytopoint is a new, innovative option for treating itching associated with atopic dermatitis (environmental allergies) in dogs. This novel therapy is a canine monoclonal antibody that specifically targets a molecule within the body called interleukin-31 (IL-31), a key protein responsible for signaling to the brain that the skin is itchy. By neutralizing IL-31, Cytopoint blocks an important step in the itch pathway. Cytopoint is available as an injectable liquid that is administered subcutaneously (beneath the skin) as frequently as once per month, though in some dogs it may prevent itching for even longer periods of time and can be administered less frequently. Like Apoquel, Cytopoint has a rapid onset of action, with improvement generally seen within 1-2 days. Since Cytopoint only targets IL-31 and does not affect other interleukins or other parts of the immune system, it is believed to be safer than steroids, Atopica, and Apoquel. No serious side effects have been associated with the use of Cytopoint. However, it is possible that it could cause an allergic reaction or anaphylaxis similar to what is seen in dogs with vaccine reactions. Consequently, it is recommended that dogs be monitored for a few hours after receiving a Cytopoint injection. Some dogs may experience lethargy for 1-2 days after receiving a Cytopoint injection. As this drug is so new, regular examinations and routine bloodwork and urine monitoring are recommended to evaluate for other possible side effects.

Summary: Although allergies in pets are not “curable”, they are very treatable and controllable in most pets. Every animal is an individual and often different medications need to be tried or combinations of medications may need to be used for maximum comfort. When the motivated pet owner, primary care veterinarian, and in difficult cases, a veterinary dermatologist work together, our allergic pets can live long, comfortable lives.