

## The Allergic Dog

The first step with any itchy dog is to try and determine *why* they are itchy. This involves looking at factors such as the dog's age, breed, history, seasonality of symptoms, as well as running some basic diagnostic tests. Most environmental allergies start to appear in dogs over the age of 4, and tend to be seasonal. In Ontario, allergies are one of the most common reasons for dogs to be itchy. Approximately 1 in 10 dogs in this part of the world have environmental allergies. However, other potential problems such as skin mites, fleas, primary skin infections, and cancers need to be ruled out. This can involve taking scrapings or swabs from the surface of the skin, plucking hairs to examine the follicles, or even skin biopsies. Sometimes if the above diseases cannot conclusively be ruled out, your veterinarian may recommend some medications to treat things like fleas or mites just to be sure that they are eliminated. There are blood and skin tests available to aid in testing for environmental allergies.

Dogs can be allergic to 4 main things: food (approx.. 1/10 dogs), things in the environment such as trees or dust (Atopy), contact allergies to things that touch their bodies (shampoos, creams...), and fleas. Most dermatologists believe that some allergic dogs have some component of all four allergies, though most dogs have one main type. This combination of allergies can sometimes make management challenging. Atopy seems to be the most common, and is more prevalent in certain breeds (labs, boxers, wheaton terriers, golden retrievers...). Atopy can be seasonal or non-seasonal, depending on whether the things the dog is allergic to are outside (trees, grass, ragweed...) or indoors (dust, feathers, cats, molds, and even people!). Also, most dogs with allergies that begin as seasonal will become less seasonal (affect them for longer periods over the year) if not treated. Once you and your vet have determined which type of allergy is most likely in your dog, treatment can begin. Important things to remember are:

- Allergies are a *multifactorial disease*, involving factors such as the dog's immune system, environment, any concurrent diseases, season, genetics, etc.... This combination of factors makes treatment challenging.
- Most allergies can emerge at any age and once there, they are often *life long*.
- Treatment of allergies involves many strategies that all need to be combined for best success. There is no one magic pill or ointment that will fix the problem alone. Few dogs are cured completely, so owners need to be aware that treatment is aimed at controlling and *managing symptoms*, often for long term.

Here are some general treatment options. These include various modalities designed to focus on all the various factors that contribute to allergies and itchy skin, as well as managing the comfort level of the pet.

- 1) Dogs with allergies have abnormal skin. Studies have shown that allergic skin is thin, broken, and has an abnormal immune system. Therefore, some aspects of therapy involve trying to modify and support the skin. This may include Essential Fatty Acid (EFA) supplementation (usually oral oils or capsules containing omega 3 and 6, fish oils, or vitamin E), emolliating shampoos (usually oatmeal based), and some topical products to protect and heal the skin (ex: topical Dermoscent or Allerderm Spot On). The minimum effective oral dose of EFA is 180mg EPA/5kg body wt.
- 2) As mentioned, some dogs can be allergic to environmental allergens *and* food. This affects about 1 in 10 allergic dogs. Therefore, most allergic dogs are put onto a prescription hypoallergenic or anallergenic diet to rule food allergies in or out. Initially the new diet is used as a *test* to look for improvement. This is referred to as a *diet trial*, and it must be very *strict* for the first 6-12 weeks, where **nothing else** passes the dog's lips except water or appropriate hypoallergenic treats. If the itching improves, this proves that the dog has some component of food allergy and should stay on a hypoallergenic diet long term. If the itching does not improve, chances are that food is not part of the problem so the pet does not need to stay on a hypoallergenic food. However, all allergic dogs should be on a skin support diet that will support their skin with EFA, etc...
- 3) Many dogs with allergies will develop *secondary skin infections* from either yeast or bacteria. This occurs both because of the skin's abnormal immune system, the fact that the skin is thin/broken, and due to self-trauma (skin gets broken by excessive licking or chewing). These infections make the dog even more itchy and need to be addressed using either oral or topical medications. These infections are often recurrent and require several weeks of treatment at a time. These infections are generally not contagious. In more superficial cases, secondary skin infections are treated with topical products such as medicated shampoos or sprays. In more severe cases, oral antibiotics or antifungal drugs may be prescribed.
- 4) Preventing self-trauma is essential, as dogs can really damage their skin with excessive licking or chewing. Elizabethan ("cone") collars, medical pet T-shirts, booties, or bandages are often necessary until the itch is controlled.
- 5) We often want to provide the dog with some topical relief from irritation. This may involve soothing oatmeal or cortisone shampoos, or topical cortisone creams or sprays. The more topical therapies we can use, the less oral ones (with side effects) we will need.

- 6) Most dogs also need medications to reduce the itch and inflammation in the skin, and modulate their abnormal skin immune system. Some mild cases will respond well to oral antihistamines such as Benadryl, but most dogs need something stronger. In 2016 a new allergy medication called **Apoquel** became available in Canada. It helps with itch by blocking certain itch receptors in the skin. It is generally safe and well-tolerated. Apoquel is safe to use with all disease conditions except seizures or cancer, and is safe to use concurrently with all medications except oral steroids. Apoquel seems to work just as well as steroids and Vanectyl P in approximately 85-90% of cases with virtually NO side effects. It can be stopped and started any time, with no annoying wean-off period. Ask us for more information about this new “miracle drug”.
- 7) A brand new allergy “supplement” came to Canada in summer 2017. It is called **Cytopoint** – it is an injectable antibody solution and helps block itch. It is so safe and benign that it isn’t even labelled as a drug. It is safe with any disease condition and can be used concurrently with any other medication. Cytopoint is given by injection under the skin – it lasts 4-6 weeks, depending on the dog, and works in 70-80% of cases. It may be a useful option for dogs who don’t tolerate some of the oral medications or for dogs still itchy despite other treatments.
- 8) Over the past 5-10 years other immune modulating drugs such as cyclosporine (Atopica) have come to the forefront for managing canine allergies. These drugs work well in many dogs, either alone or in combination with other medications. They are generally well-tolerated, but can still potentially have side effects. Unfortunately these drugs can become quite costly over time, especially for larger dogs.
- 9) Allergy shots (hyposensitization immunotherapy protocols) should be considered in ALL cases of atopy where dogs are affected for several months of the year OR symptoms are severe and refractory to other medications. A skin test (preferable, more accurate) or blood test needs to be performed to identify what environmental things that the dog is allergic to. A serum is then made up containing all of those allergens in small amounts. The dog is subsequently injected with those allergens at varying intervals over time. The goal is to make his or her immune system tolerant to the allergens so that it will start to “ignore” them. Studies show that about 70-80% of dogs show moderate to excellent improvement in allergy symptoms within 8-12 months of starting the injections. Most dogs require monthly injections for life to maintain the improvement. These hyposensitization protocols are generally safe and well-tolerated, but they don’t work in all cases. They do *not* work for food allergies.  
Note: recently ORAL immunotherapy has become available in Canada. It appears to have approximately the same success rates, but must be given more frequently.

- 10) Many dogs with allergies also have chronic ear infections. Intermittent treatment with either oral or topical medications may be required. Most dogs also need life long management with cleansers or topical cortisone drops, such as Burrows solution.
- 11) . Until recent years, allergy treatment often involved oral steroids (Prednisone or Vanectyl P), which can have both short and long term side effects. These can include increased drinking and urination, excessive panting, increased appetite and weight gain, changes in behaviour, liver damage, stomach ulcers, and immune suppression. Some dogs will even develop diabetes. Thankfully, some newer and better tolerated allergy medications (Apoquel, Cytopoint – see above) have come to Canada that are making medicating allergic dogs a lot easier for families. If steroids are chosen for your pet's treatment, baseline bloodwork may be recommended prior to therapy to ensure he or she is a good candidate for the medication. It is critical that steroid never be abruptly discontinued, but slowly tapered off to allow the animal's body to re-adjust.

As one can see, allergies can be an expensive and frustrating problem. Good communication and close follow up with your vet are essential. Results will vary from case to case, but the dogs that are treated consistently have a greater chance of success. Never discontinue medications or treatments without first discussing it with your veterinarian. The key is to keep long term treatment plans going even when the animal is doing well, as the goal is to maintain them symptom free.

**Please feel free to contact Stittsville Small Animal Clinic to discuss any questions or concerns.**

**613-836-5040**