Dogs: Allergies and Skin

My pet...allergies?
Pet owners are often very surprised to hear that their pet may have allergies, but in fact, allergies are as common among cats and dogs as they are in humans, if not more so.

What is an allergy?
Allergic reactions are essentially “mistakes” made by the immune system. The immune system is set up to recognize dangerous invaders and fight them off. Unfortunately, it can sometimes be fooled into reacting to something quite innocent such as dust or a food ingredient, as if those things were dangerous bacteria or viruses. This reaction results in, among other things, inflammation. This inflammation often shows up as inflamed skin. This can include the ears, between the toes and under the tail. Inflammation results in itchiness and often infection of the skin.

Allergic reactions can occur to anything, absolutely anything! Skin allergies are especially confusing as they can be to food, something in the air, or something the skin is in direct contact with.

How to we know this is an allergy?
Allergic diseases can often be suspected based on history and physical examination findings, but it is important to keep in mind that there are hundreds of different skin diseases that often look very similar. Your veterinarian may do a series of tests to rule out some of the other diseases, which might include skin scrapings, checking for fleas, dietary trials, biopsy and referral to a veterinary dermatologist.

Food Allergies:
We often become suspicious of food allergies with persistent ear infections and ongoing rashes. This confuses many people as they think, “she’s been on the same food for years!” That may well be true, but keep in mind allergies can develop to anything at any time in life; often it is the pet’s immune system that has changed, not the food itself.

There is no reliable test to tell us whether a food allergy is present or not, and if so, what specifically in the diet is causing the problem. The only way to figure this out is to do “food trials.” Food trials can be a bit difficult to do properly, so please read the following tips carefully.

Food Trial Tips:
1. **Find A New Protein Source:** Although an allergy can develop to any ingredient in the diet, most commonly the protein or meat source is the problem. To do a proper food trial you will have to introduce a different source of protein and eliminate all previous sources of the protein. For example, if your pet has been eating a chicken based diet, try venison instead. It is a good idea to try a protein source that your pet has not previously been exposed to (i.e. a novel protein). It is not uncommon for there to be more than one allergen.

2. **The Old Protein Must Be Strictly Eliminated:** Allergies are not quantity related; the tiniest amount of the offending ingredient can set off a reaction within a 2 week period. This means that whatever your pet was previously eating must be 100% eliminated from
the diet, or there will be no point in switching. Therefore you must read the list of ingredients very carefully. Many lamb diets, for example, have poultry byproducts and thus are not suitable for dogs that need to be completely off poultry. Also, this means you have to check any treats, chew items, flavoured medications, etc. to ensure the old protein source has been completely eliminated. Keep in mind that many treats contain fish, and omega fatty acids are fish oils. If a poultry allergy is suspected, it is best to avoid other bird proteins such as duck. *The only thing that should go into your pet’s mouth during the food trial is the new diet and water!*

3. **You Must Be Patient:** It can take up to **8-12 weeks** for a diet change to make a significant difference; the old ingredients can continue to cause reactions for that long. You have to stick with a diet trial for 2-3 months before deciding whether it has worked or not. If a food is successful, you should see marked improvement at 8-12 weeks. Often more than one food trial may be needed to figure out the offending allergen.

4. **It Is Not Always The Protein:** There are some pets who are allergic to the carbohydrate source (corn, wheat, rice, potato, etc.), so this may need to be changed as well. There are gluten-free diets available.

5. **Prescription Diets:** It can be difficult to find an appropriate diet as an increasing number of animals are allergic to commercial sources of protein and carbohydrate. As well, research has shown that many store-bought diets can be contaminated with food allergens that are not shown on the ingredients list. Please ask us for help, as we have access to a number of prescription diets for your pets. These include vegetarian, venison, kangaroo and oats, duck, fish, and even hydrolyzed protein diets. Hydrolyzed diets are made of proteins which have been broken down to such a small size that the immune system doesn’t recognize them. Some pets will not respond well or at all to these diets. Homemade recipes are also available through us.

6. **Post Food Trial Challenge:** In order to confirm a food allergy, it is important to challenge your pet’s immune system after a successful 8-12 week food trial. This involves feeding your pet a small portion of the suspected allergen and then monitoring for a reaction to occur over the next 2 weeks. If more than one allergen is suspected, wait 2 weeks between challenges.

**Environmental Allergies (Atopy):**

Allergies to things in the environment, what we call “atopy”, are even more common than food allergies and unfortunately are often more frustrating. Atopy can be divided into seasonal and non-seasonal allergies. If the problem is seasonal we suspect something in the outside environment (even if you have an indoor pet). Non-seasonal or year-round problems raise the suspicion of something in the indoor environment. Keeping this in mind, many animals who were initially seasonal in their symptoms can begin to show signs all year round as they get older.

House dust is one of the most common triggers of atopy. Even the cleanest house has enough dust to cause a problem for a pet (remember how much closer to the ground they are!). Other culprits include pollen, mould, feathers and wool, among many other things.

Allergy testing can be done to determine exactly what your pet is reacting to in the environment. Testing can be done by a specific blood test that is sent to the lab or by a veterinary allergist via a skin test. It is unusual to see animals who are only allergic to one thing and you may not be able to eliminate the specific allergen from your environment. However, the dermatologist will make recommendations for “hyposensitization” or “allergy shots”. These injections are made of a combination of materials which your pet is allergic to. They are given in tiny quantities and are then gradually increased to try to train the immune system to become tolerant. Although there have been some success with this approach, the overall response rate might only be around 50%.
Medical Treatment:
A variety of medications are available to help relieve, but not cure, allergies. Your veterinarian will recommend a treatment protocol which is tailored to your pet. These are especially helpful when diet trials and allergy shots haven’t been effective.

**Steroids (Cortisones)**
These are not anabolic body builder steroids but are the anti-inflammatory type such as prednisone. These are highly effective and inexpensive. Short term, we can expect your pet to be drinking and urinating more, while this medication also acts as an appetite stimulant. As we reduce the dosage, these side effects are significantly reduced. Long-term side effects are also a factor with steroids, but these are minimized by using the lowest effective dose.

**Antihistamines**
Although these work well for many people, few animals respond to antihistamines on their own. In most cases they need to be used in conjunction with steroids. The main advantage to using antihistamines is they allow us to reduce the dosage of steroids, thus minimizing side effects.

**Essential Fatty Acids**
These supplements help reduce skin inflammation and maintain a better skin barrier. An improved skin barrier helps keep out infection. Please ask us for more information on these supplements. On their own these medications are not a solution, but they can be used to reduce reliance on steroids. Keep in mind that these are fish oils and may be an allergen to your pet.

**Shampoos and Conditioners**
Various products are available to soothe the skin, seal in moisture, and reduce scaling and inflammation. These often improve allergic skin disease, but by themselves are often not a solution. Ensure you are using veterinary or pet-labeled products as human shampoos and conditioners are often too harsh on the skin.

Allergic skin disease is extremely frustrating for owners, and it can take a great deal of time to sort out treatment that works. In the case of animals with atopy, the best we can do in many cases is manage the symptoms but not produce a cure. In some cases, referral to a veterinary dermatologist or nutritionist will be recommended. If you have any questions or concerns regarding your animal or products to help them, please do not hesitate to contact us.