Food Allergies and Food Trials in Dogs and Cats

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What are food allergies?

Food allergies are a sensitivity to components of some foods, often called a cutaneous adverse food reaction when the ingredient causes skin symptoms like itching or recurrent skin or ear infections. When a certain food is eaten that a pet is allergic to, the immune system is stimulated, and the intestinal tract and/or skin becomes inflamed. This inflammation sometimes leads to vomiting or diarrhea, sometimes the symptoms are shown in the skin with itching, ear infections, redness, and infections. There is no way to tell on physical exam if a pet has food allergies because the symptoms of food allergy often look the same as the symptoms of an environmental (pollen, dust, mold) allergy, and often look the same as many other diseases. Food allergies are not very common in dogs, less than 10% of patients with allergic symptoms in this part of the country. Cats have food allergies more commonly, perhaps 20%. It is possible to have a food allergy and an environmental allergy. I have only seen a couple patients in my career with a pure food allergy causing skin symptoms who had no component of environmental allergy. In my experience, almost all pets with a food allergy also have environmental allergies to pollens, dusts, dust mites, and molds.

How to diagnose a food allergy

First, to diagnose allergies in the first place, all other causes of skin symptoms must be ruled out. Common diseases that may look like allergies are parasites, infections, or endocrine diseases.

History is very important. It has been shown that dogs with skin symptoms who have more than 2 bowel movements per day and/or who have their skin issues start before 1 year of age are more likely to have a food allergy contributing to their skin issues. If a dog is itchy every year in the spring through the fall and is comfortable all winter, then this dog has an environmental allergy and not a food allergy. If a cat is constantly licking its abdomen year round, then it has about a 20% chance of having a food allergy. If a pet has year round itching with seasonal flares, then the pet has an environmental allergy and may have a food allergy too. Blood tests or saliva tests are not useful to diagnose food allergies because they are very inaccurate at best and more often are worse than worthless, so I do not recommend these tests. The only way to rule out a food allergy as a cause of skin issues in your pet is to perform a food elimination trial.

If the pet’s physical exam and history are consistent with a food allergy, a food trial must be performed. If a pet has a food allergy, skin symptoms should slowly resolve over 2-8 weeks when the offending food is avoided, and then rapidly return (1-7 days) when that food is reintroduced. Because in Minnesota the
allergens in the environment like pollens change every couple months spring thru fall, if you see a great improvement on a certain diet, it is essential to feed a previous diet again to make sure there is a flare up, then the symptoms should improve again when the trial diet is again fed. Food trials in Minnesota are easiest to interpret when performed in the winter since indoor allergens are pretty stable for many months and there are less outdoor allergens.

A pet may be sensitive to a microscopic amount of an offending food, so trials must be very strict. In some situations, (young children at home, dog living on a farm, uncooperative spouse) a food trial may be impossible. If a food trial cannot be performed, keep in mind food allergies are pretty rare, and there are several medications that will help symptoms whether the allergies are to food or not.

**Which foods to avoid and which to feed**

Food allergies are most typically to specific proteins in foods. Dogs and cats cannot live without protein in the diet, and so avoiding all proteins is not possible. Proteins are found in most major ingredients in food, including meats, fruits, vegetables, and even in starchy ingredients like oats, corn, or wheat. Because potatoes have very little protein, it is unlikely to have an allergy to them.

A food trial requires feeding a very limited ingredient diet (using a protein source the pet has not been exposed to before) with no items other than what is in this very limited diet. Diet trials should be performed for at least 4 weeks (should see a 50% improvement in symptoms) and ideally longer, although if there has been no improvement in 8 weeks, it is unlikely there is a food allergy.

Food elimination trials are best performed by using a limited ingredient, home prepared diet. The reason for this is so you know exactly what is going into the food. Most home-prepared trial diets are not balanced for long term use, we only for them for the diagnosis of food allergy. For dogs, a meat source (like rabbit or pork) is fed with potatoes as a carbohydrate source in a 1 part meat to 2 parts carbohydrates, with added oil like coconut or sunflower. Home prepared diets should not be used long term without consulting a board-certified veterinary nutritionist or a website like balanceit.com. Once a food allergy is diagnosed, then we work to balance the diet while avoiding allergens or we find a commercial diet that is tolerated. For cats and puppies, rabbit is very deficient in amino acids, even when raw. Pork is an option, but cats can be quite picky if they are not accustomed to a non-kibble food. I recommend commercial diets for cats and growing dogs.

The second best option is a prescription limited ingredient diet with a protein source that the pet has not been fed in the past. Prescription diets through a veterinarian are better than over the counter diets. A recent study showed that non-prescription diets changed ingredients (without changing labels) about 40% of the time. In addition, there is no requirement of pet food manufacturers to thoroughly clean equipment between different pet food flavor batches or different brands of pet food, allowing for significant cross contamination of ingredients. Prescription diets are held to a higher standard, and companies making these diets recognize the need to prevent contamination with other protein sources. If a pet does well on a commercial diet, there is no need to balance the diet, these diets are balanced for life long use.

Food trials are performed by feeding only these limited ingredients for a period of 4-8 weeks. No supplements, treats, chews, bones, people food, or flavored chew medications are allowed during this time. It is best to have all skin infections diagnosed and controlled at the start of a food trial, because some infections are so uncomfortable and severe that it is unlikely they would resolve with a food change alone. Of course, while on a food trial that is working, infections should not return, and itchiness should diminish over about 2-8 weeks to a minimal point. When a food that a pet is allergic to is re-
introduced, that pet should have symptoms of itching or infection within a week, and most typically within 1-3 days after introducing even a small amount of the offending food.


It is currently very popular for pets to be on “grain free” diets. A grain free diet is not a good way to rule out a food allergy; eliminating grains in the diet is only helpful if a pet has an allergy to a grain (wheat, corn, oats). Although it is certainly possible to have a grain allergy, it is not as common as current popular fads or employees at pet food stores may lead you to believe. The most common food allergies I see in dogs are to beef, chicken, and dairy. In cats, fish is high on the list too. Some people want to feed “grain free” diets because of the theory that grains are more inflammatory to the body. Although there is some evidence for this theory with high amounts of wheat in humans, it could also be argued that non-grain carbohydrate sources such as potatoes have a much higher glycemic index than whole grains, causing inflammation in the body due to insulin spikes.

“Natural” printed on a pet food label is not helpful to judge quality of ingredients- there is little to no regulation of this label on pet foods. If you want less pesticides and antibiotics in your pet’s food, you should look for the label “USDA Organic”. “Organic” does not mean this food is less allergenic- if a pet is allergic to chicken, he is also allergic to organic chicken. However, it is possible for a dog or cat to be allergic to trace non-protein chemicals found in foods, and so organic ingredients are theoretically better options when a diet trial is being performed.

Raw foods are not superior for pets with food allergies; in fact, I would prefer a cooked diet for food trials. In humans, raw foods cause allergic symptoms much more commonly than those same foods when cooked. Cats have a requirement for taurine, an amino acid destroyed by cooking, so require supplementation or a portion of the diet to be raw meat. I am not against raw foods for pets, there may be some benefits that have not been discovered. Owners need to be aware of the very well documented risks of handling and feeding raw meats.

**What if a food trial is not helpful or only partially helpful?**

If a food trial is not helpful or only partially helpful, then it is very likely there is an environmental allergy component to the symptoms. Intradermal skin testing can be performed to determine what a dog is allergic to in the indoor or outdoor environment. Allergy shots are a non-drug, non-immune-suppressive way of desensitizing the immune system to these allergens. There are many medication treatment options to decrease itching and skin inflammation to give pets relief. At this time, there are no cures for allergies, only long term management.