

# FOOD ALLERGIES

A food allergy is an overreaction by the body's immune system to one, or more than one, substance that a dog or cat eats or has eaten. The allergic reaction may show up as vomiting, diarrhea or weight loss. Or it may manifest itself with skin symptoms—itching, redness or hives involving the face, ears, feet and legs, abdomen, back, rectal area or any combination of these. Occasionally, food allergies can cause seizures, urinary tract inflammation, recurrent ear infections and other symptoms. About 50% of the time in cats and 18% of the time in dogs, symptoms are present in more than one body system—for example, itchy skin and diarrhea both.

Food allergies are genetic and inherited. Certain breeds, such as Labrador retrievers and German shepherds, are more prone than others, but food allergies can occur in any breed. The dog or cat with food allergies was born with a gene that turns on at some point in his or her life. That gene may activate at 3 months or 13 years of age, or anytime in between. Just like someone who has inherited a tendency to become diabetic or to have heart disease, the symptoms start later on in life, not at birth. The majority of pets are between 1 and 3 years old when symptoms begin, but pets can become allergic at any age.

When that gene turns on and starts triggering the immune system, the dog or cat will become sensitized to one or more food items it eats during the next few months. After a few months, the gene seems to turn itself off again. After an initial 6-12 months of sensitization, animals will rarely develop additional sensitivities. In other words, whatever they become allergic to in the first 6-12 months after their inherited gene turns itself on they will be allergic to for the rest of their lives, but they probably won't become allergic to additional food items after that. (This may NOT be the case with allergies to pollens, dust mites, mildew or other inhaled. It is more common to gradually become allergic to more inhaled allergens with time.)

There are no hypoallergenic foods. There is no food that your pet can put in its mouth that it cannot become allergic to. **Feeding a lamb-based food does not prevent food allergy.** Your pet will simply develop an allergy to lamb, instead of to beef or chicken or whatever else it would have eaten instead. Your pet can be allergic to one or many food items, and it can be allergic to ANYTHING it may have swallowed during the months it was developing allergies. In fact, the more variety of items the pet eats during the allergy-forming months, the more items he or she will be allergic to.

Very small amounts of a substance can trigger an allergy, as with a bee sting, and the allergic reactions can persist for a long time—even 6 weeks or more from a single exposure to that substance. So even items you give infrequently or in small amounts can cause major allergic reactions. Rawhide chews, cow hooves, doggie toothpaste, the corn chips that fell on the floor, the fish residue in the cat poop he

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ate from the litter pan, the pork in the neighbor's garbage, the milk licked from a cereal bowl, the mouse caught in the basement and of course his cat or dog food. **However, the most common food allergies are to common pet food ingredients that the pet has been eating for along time**— beef, dairy products, chicken and wheat in dogs; beef, dairy products, chicken and fish in cats.

Items in the dog or cat food that trigger allergies are not always listed on the pet food label. Is the calcium source in the food from beef or pork bones? What kind of vegetable oil was sprayed on the food during processing to prevent the nuggets from sticking? Were the poultry by-products chicken or turkey? Reading labels on pet food and trying to find a diet that doesn't have the same ingredients on the label as the current food you are feeding usually doesn't work. There are too many ingredients common from food to food and too many possibilities that aren't clear on the label, so it's rarely of any use to just try another brand of food.

Food allergy symptoms are the same symptoms we see with other illnesses. Fleas, mites, inhalant allergies and bacterial infections all cause similar skin symptoms. Infections, parasites, ulcers, cancer and other diseases all can cause similar gastrointestinal signs. There is no blood or skin or stool test we can do as of yet that will wave a red flag and say "Hi. I'm a food allergy." The only reliable diagnostic test we have is the hypoallergenic food trial. So, testing and treatment may be needed for other diseases that could cause similar signs.

To diagnose food allergy, we put the pet on a food trial, meaning we put him on a diet specially made to avoid an allergic response by the pet's immune system. It takes anywhere from 1 to 12 weeks for the allergens that have accumulated with time to work out of the system and for the allergic reaction to die down. After that happens, if the pet indeed has food allergies, we usually see dramatic improvement in the signs or symptoms of the disease. If a pet has been on a hypoallergenic food trial for 10-12 weeks and we have seen no improvement in signs, the pet's condition is probably not being caused by food allergy.

A hypoallergenic diet is usually one that contains "novel" ingredients— ingredients that the pet has never eaten before and thus has not build up an allergy to. These diets are made with protein sources such as duck or venison, instead of the usual pet food ingredients such as beef or chicken. We do not start feeding a pet one of these diets until the signs of allergy have been present for at least 6-12 months, to avoid having the pet develop allergies to the new diet just as he had to the old one. We use this 6 months to one year to treat for and rule out other causes of the symptoms the pet owner has seen, such as pollen allergies. During this time period, we advise feeding the pet **one brand of food only**, and to minimize exposure to table food and other items. This will limit the number of items your pet could become allergic to.

A new technology in food processing has produced a new type of hypoallergenic diet that is safer to put pets on even in the early stages of developing allergies to food. This new diet is called Z/D and is made by Hill's, the company that also makes Science Diet products. The protein molecules in the Z/D food have been broken up into pieces smaller than the minimum size usually required to cause an immune reaction. The resulting food is made of components not found in nature. Many dogs and cats with food allergies will not have an allergic reaction to Z/D at all, and will be much less likely to develop further allergy to the Z/D than to a regular diet, even if it is fed during the initial allergy-forming stage.

Carbohydrate sources such as rice, wheat and corn contain protein as well. It's usually the proteins in the food that trigger allergy reactions. In Z/D both the animal and plant proteins in the food have been broken down into small pieces to make them less stimulating to the immune system. Even Z/D has some oils and preservatives in it, however, and a small number of pets are sensitive to these ingredients. Again, if Z/D doesn't work, and the pet is still itchy or still has diarrhea after other diseases have been treated or ruled out, it's time for a homemade diet.

To make a home-cooked diet for dogs, we choose one protein source and one carbohydrate source that the pet has never eaten, such as venison, duck or rabbit mixed with rutabagas or peas or turnips. Boil or microwave equal amounts of the two ingredients until cooked, mix well and serve. No oil, spices or flavorings can be added. For cats, boiled or microwaved rabbit meat is usually accepted well with no carbohydrate added at all, just the meat. These diets aren't nutritionally complete but they are sufficient for the duration of the feeding trial. Once the pet is doing well we can add one ingredient at a time back into the diet, to determine what the pet will and will not tolerate, and also make the diet more complete and balanced. Most pets can eventually eat a commercial hypoallergenic diet once we know what ingredients to avoid.

You must feed the special Z/D or other hypoallergenic food for at least several months before deciding that it is or isn't working. If symptoms improve more quickly on the new food, great, we've made a diagnosis. If it takes longer, hang in there and **don't stop too soon**. Feed the new diet for as long as it takes to know for sure.

During the diet trial you must do your absolute best to ensure the hypoallergenic diet is the **only** thing your pet eats. Remember, even small amounts of food ingredients can trigger a severe or long-lasting reaction.

This means:

- \*No treats, chewies, biscuits, bones, rawhides or snacks.
- \*No chewable or flavored heartworm pills, vitamins, mineral supplements or other flavored medications. You will need to use non-chewable or unflavored ones. Revolution is the preferred heartworm preventative for food allergic pets—it's an ointment, not a flavored pill.
- \*No fatty acid supplements (they contain fish oil and come in a gelatin capsule made of animal by-products).
- \*No flavored toothpastes (use baking soda to brush your pet's teeth).
- \*No table food, no sneaking cat food, no cat poop from the litter box, no going outside to hunt mice, no scavenging the compost pile, no french fries from McDonald's, no licking plates or wrappers and no licking the floor! If you drop a food morsel, try to pick it up before the dog gets it. If your baby throws food to the dog, lock the dog in another room or kennel him at mealtimes.

You will be spending a lot of time, money and effort on your pet to do this food trial. Realize it is a diagnostic test that needs to be done properly if it is to work. Don't skimp. It will seem like the biggest pain you could imagine while you are doing it, but in the big scheme of things, the 4 or 8 or 10 weeks it takes is not really such a lot of time.

WHAT HAPPENS AFTER WE GET THROUGH THE TRIAL?

If your pet's symptoms improve on the hypoallergenic diet trial, we have 2 choices. We can continue the Z/D or other special diet. Or we can introduce other diets, treats or medications slowly, one at a time, in an attempt to determine which ingredient is the culprit. If the symptoms recur, we then know which things to avoid and which he or she will tolerate. For big dogs especially, the Z/D is expensive to feed. We can try a less expensive alternative—another version of Z/D that is not so processed or another commercial hypoallergenic diet, and see if the symptoms remain controlled. (If after 12 weeks of a strict homemade diet trial your pet's symptoms have not improved, and it is in the past 6-12 month period when new allergies might develop, that means your pet does not have a food allergy. Other tests may then be needed for diagnosis.)

Upon re-exposure to a substance the dog or cat is allergic to, symptoms will recur anywhere from 1 hour to two weeks later. Some clients notice a dramatic return of signs the first time the dog gets a few corn chips off the floor or the cat gets a bit of tuna. You must give any new ingredient or food two weeks before deciding if it is safe to feed it long term. If your pet does start to worsen again, immediately reinstate the hypoallergenic diet or discontinue the culprit item. If you catch it early, the reaction will usually die back down in a week or so, and then you can try again with a new food item. Remember that if your pet has not been showing symptoms for at least 6 months, it is not a good idea to introduce any new foods or medications—the pet may still be in the stage of developing more allergies and he will simply become sensitized to the new items you've added in. Wait at least 6 months before trying **any** new or re-introduced products on a food-allergic pet!

If we are looking for a less expensive alternative to Z/D, and your pet has never eaten a lamb-based diet before, we usually pick a lamb-based commercial diet to try, as these are now readily available. If we feed this new diet for two weeks and signs do not recur, it is probably safe to feed it long term. Remember, it is rare for an animal to develop additional food allergies once the initial 6 month sensitization period is over. If the pet has eaten lamb before, we have hypoallergenic diets available made of venison and potato, fish and potato, duck and potato or rabbit and potato. Cat diets may have rice, barley or green peas substituted for the potato. Most pets (about 90%) will tolerate these.

Our biggest problem with cats is that they often don't like special diets. A cat that is not eating can develop liver problems in as little as 3 days. Cats will starve themselves into liver failure or death if they hate their food, so don't wait more than 3 days before offering a cat food he or she will actually eat. You may need to feed canned food instead of dry.

It is not necessary to prove every item the pet is allergic to by introducing individual ingredients back every two weeks to see which ones make the pet sick. Our goal is to make the patient better. If we find a food the pet tolerates, we just keep feeding it forever. If needed, other medications and supplements can be introduced back one at a time to determine if the pet can tolerate them. If your dog seemed fine on its new commercial diet but got itchy a week after he got his chewable, beef-flavored heartworm pill, you'll have to stick with the non-chewable kind. If your cat was fine until he licked the cereal bowl, don't even give him milk products again (including cheese). Remember, one item at a time, and then wait two weeks before trying another.

The hard part here is that flea or pollen allergies may cause itching as well as food allergies. Viruses and parasites cause diarrhea, just as food allergies do. There may be more than one disease process going on in a pet to cause symptoms, so telling which is what can be difficult. This is where we can help. We are always available to help you through this disease and we will stay in close contact with you throughout the food trial and afterwards. Success at controlling symptoms requires a good doctor-staff-client team. Please call us with questions any time!