



Dermatology Clinic *for* Animals

IT'S *more* THAN SKIN DEEP

Food Allergies in
Dogs and Cats

Overview

Dogs and cats, like humans, can develop hypersensitivities to specific food ingredients. A food allergy can develop to an ingredient(s) that has recently been introduced in the form of a new diet or treat or, more often, to something they have been exposed to for a significant period of time. Food allergy can occur at any age (very young to very old) and at any time of the year. It can be one of the least itchy diseases, only causing recurrent skin or ear infections, or one of the itchiest diseases.

Symptoms

The most common symptom of food allergy is itching, which can be manifested as scratching, chewing, licking, rubbing, or pulling the hair out. In many cases of food allergies, in addition to itching, there are often recurrent skin and/or ear infections. In fact, the only symptom of a food allergy can be recurrent infections. 15-20% of dogs and cats with food allergy also have gastrointestinal symptoms. These animals may have some recurrent vomiting and diarrhea, increased flatulence or increased frequency of bowel movements.

Causes

The most common food allergens are beef, chicken, dairy, rice, wheat, corn, egg, lamb, soy, and fish (and other seafood ingredients in cats), with beef, chicken, and dairy products being the three most common offending food allergens. As many of these ingredients are present in most commercial pet foods, treats, and in the “people” food we give our pets as treats, just switching from one brand of food to another may not necessarily determine if your pet has a food allergy.

Diagnosis

Although there are blood tests available to test for food allergy, these tests are most often inaccurate (most animals often test positive, even if they do not have a food allergy) and often the results do not correlate with what the dog or cat may be allergic to, even if they do have a food allergy. The best way to definitively diagnose your pet with a food allergy is to feed a diet that excludes all of the most common food allergens. Your veterinarian may choose a novel protein diet (a protein source your dog or cat has not eaten before and, therefore, should not be allergic to), or a hydrolyzed diet (often a chicken or soy-based diet where the proteins are broken down to a smaller size that should not cause an allergic reaction). If improvement is noted in symptoms during this period, then a food challenge is implemented, whereby the previous diet and treats are reintroduced for 1-2 weeks, monitoring for any signs of flare up of previous symptoms (itching, ear/skin infections). If no flare of symptoms occurs, then your pet does not have a food allergy and can be on its previous diet and treats. Should a flare of symptoms occur, then your pet has a food allergy. Following confirmation of food allergy, there are one of three options: 1) you can maintain your pet on this diet for life, but this limits the variety of treats and food you can give; 2) you can switch to another limited ingredient diet that does not cause a flare of symptoms; or 3) you can perform an individual protein and carbohydrate challenge to specifically determine which ingredient(s) your pet is reacting to (refer to the page on individual food challenges). No diet is truly “hypoallergenic.” Remember, it is the absence of an offending ingredient in the diet that makes it “hypoallergenic” for your pet.

Food trial options

Your veterinarian will select a diet that they feel is the more appropriate one to confirm or rule out a food allergy in your pet. If a novel protein commercial diet is selected, the two most common ones recommended are a rabbit and potato diet or a kangaroo and oat diet. Venison, duck and fish diets are occasionally recommended, however, because of possible cross reactivity of beef allergy to venison or lamb and chicken allergy to duck, these have become less appealing diets to diagnose food allergy. Hydrolyzed hypoallergenic diets (in which the proteins are broken down into small molecules not recognized by the body's immune system) may also be prescribed. Lastly, home-cooked hypoallergenic diet trials are considered by many to be the "gold standard" to diagnose food allergy. Again, an ideal single protein source and single carbohydrate source will be selected by your veterinarian. Often the commercial and home-cooked diets are lower in calories, so you may find that you need to increase the amount fed to your pet during the diet trial. Because every pet is unique, it may take two or more food trials to definitively rule in/out a food allergy. For instance, if a hydrolyzed diet is performed with no improvement but a food allergy is still suspected, then a novel protein diet is recommended as a second trial (or vice versa).

The purpose of the elimination diet trial is to determine if your pet has a food allergy, and if so, attempt to determine which ingredient(s) are the offenders.

Duration

The elimination diet trial is performed for a period of 6-12 weeks. During this period, it is **imperative** that your pet not receive any other food ingredients, including "people food" and flavored pet medications that are not recommended by your vet. Even a small amount of the offending ingredient can cause a flare of symptoms! There are treat options that are recommended further in the handout that are considered acceptable.

The Challenge

Confirmation of a food allergy is achieved based on not only improvement or complete cessation of symptoms while on the food trial, but recurrence of the symptoms (some or all) with challenge. Following the elimination diet trial, you will be asked to perform a broad-based challenge by reintroducing the original diet (previous diet) and all treats your dog or cat had been fed prior to the diet trial. If flare of symptoms occurs within 1 week, then a food allergy has been confirmed. To resolve the flare, please switch back to the diet trial food until resolution of symptoms. At that point, there are three options: 1) maintain your pet on the elimination diet trial food for the remainder of your pet's life; 2) your vet can recommend another over-the-counter relatively limited ingredient diet that hopefully will not cause flare (repeat the challenge process for 1 week to ensure no flare occurs); or 3) proceed with individual ingredient challenge outlined further in the handout to identify specifically what your pet is allergic to. With option 3, once the offending ingredient(s) has been identified, all you have to do is avoid the offending ingredient(s) in the food and treats. You must read the ingredient list because what is on the front of the bag does not include all the ingredients! Please do not hesitate to notify us of your pet's food allergens as we may be able to help you select a diet and treat options that do not induce flares. Cats often are not open to performing an individual ingredient challenge, especially to carbohydrate sources. If a challenge is not possible, you can maintain on the diet selected for the elimination trial or try a recommended over-the-counter limited ingredient diet that does not cause a flare in symptoms.

Acceptable Treats

We understand the importance of offering your pet treats. There are a few options for treats that are considered acceptable during the elimination diet trial. However, your pet should not be allowed to have any rawhides, dog biscuits, table scraps, or flavored pet medications, including several supplements. If your pet is on flavored medications, please inform us so that we can work with your regular vet in switching to a non-flavored form for the duration of the food trial. One bite of food containing the offending allergen can ruin the entire diet trial!

Acceptable treats for most diet trials include any plain potato-based foods such as a plain baked potato, or thin slices of plain potato baked as chips (make sure no corn oil), or Sams Yams are sweet potato chews which are acceptable. For those on a novel protein diet, you can purchase rabbit ears (resemble pig ears) at online stores. Blueberries and raspberries are okay, and can be used as pill pockets for small pills. Green beans (fresh or frozen) are also an option.

Home-made recipes

Skippers

1 cup Royal Canin Rabbit or Rayne Kangaroo and Potato Kibble
½ cup canned Royal Canin Rabbit/ Potato dog food
½ cup cooked yam

Process the kibble in a food processor until powder-like. Add canned rabbit dog food and cooked yam. Process until well blended. Roll into small 1-inch balls and press flat with a fork (1/4 inch thick). Place on a wire rack on a cookie sheet and bake in a 200-degree oven until dehydrated (may take 4-5 hours). Keep refrigerated or frozen.

Yummy Yammies

Sweet potatoes

Slice potatoes into ¼ inch slices and bake on a wire rack at 200 degrees for approximately 2 hours. If using a dehydrator, you may need to cook for up to 4 hours or until crisp.

Pizza Bites

1 can of diet trial pet food

Shake contents of the canned diet onto a cutting surface, leaving the shape of the contents. Cut the contents into ½ inch thick slices. Cut the circles into triangles, similar to a pizza. Place on a cookie sheet and bake at 350 for 30 minutes, flipping after 15 minutes.

Individual Ingredient Challenge

The individual ingredient challenge will be recommended to be performed following confirmation of a food allergy (improvement with the elimination diet trial followed by recurrence of symptoms with a broad-based challenge). This process may take a few months, but it is rewarding in that you can specifically identify the offending allergen(s), allowing you to select over-the-counter diets and treats that your pet can safely eat without flare of symptoms.

To perform the challenge, one ingredient from the list is added in a small quantity to the elimination diet food daily for 1 week, watching for flare in symptoms. If a flare of itch or infection occurs, then this individual ingredient is now considered an allergen. This ingredient should not be fed in any form for the remainder of your pet's life. For example, if you add a small amount of beef daily to the elimination diet food and find recurrence of symptoms, your pet is allergic to beef and all beef products should be avoided, including rawhide. If flare occurs with an individual ingredient, stop feeding the ingredient and feed only the elimination diet food until resolution of the flare, usually 1-2 weeks. Once you have identified all possible allergens, you need to ensure whichever food and treats you select to feed is absent of these ingredients by reviewing the ingredient list on the back of the bag/box. Please call us if you need help in selecting a diet.

Ingredient	Results
Beef (boiled hamburger)	<hr/>
Chicken (boiled skinless)	<hr/>
Fish (cod, halibut)	<hr/>
Dairy (cheese)	<hr/>
Rice	<hr/>
Wheat (bread)	<hr/>
Corn	<hr/>
Soy (tofu)	<hr/>
Other	<hr/>
Other	<hr/>

Frequently Asked Questions

Are there any other forms of food I can feed my pet during the elimination diet trial?

It is imperative that the trial remains strict and that the only treats that are fed are those recommended in this handout or by your vet recommending the trial. Again, one bite of a food not recommended as part of the diet trial may ruin the entire trial. Remember, no rawhides, table scraps, dog biscuits, cat treats, etc are allowed during this period.

What if my pet is not wanting to eat the recommended diet?

Please call us! There are other possible alternatives for a good diet trial, and we are here to help you select one that your pet will eat. Occasionally adding in some canned food of the same diet will entice your pet to eat. Some pets are more open to eating the food following a slow transition from their current diet to the recommended diet by adding an increasing amount of the recommended diet and decreasing amount of their original diet over a period of 3-5 days. Most of the prescription diets are able to be returned with a refund if your pet will not eat it.

Where else can I buy the prescription diets?

We are happy to offer several options for food elimination diet trials. Several regular veterinarians may offer the same diet we are recommending, and we are happy to provide a written prescription. We can also arrange to have the food shipped to your home (a shipping charge will apply).

How can I give my pet medications during the diet trial?

Giving pets medications can be tricky. Hiding the medication in food has often made this a more tolerable job. However, during the trial, most foods you hide the pills in are no longer acceptable. You can try hiding the food in a plain tater tot or in a meatball of the canned version of your diet trial food. The other option is to place the medication as far back in the throat as you can, close the mouth and massage the throat until your pet swallows. Another trick is to squirt some water from a syringe (no needle) into the mouth after you have inserted the pill, forcing your pet to swallow.

What are some medications that my pet cannot be on during the diet trial?

Most medications are fine. However, flavored medications should be avoided as the ingredients used to flavor the medication may be one that is triggering the allergy. Commonly flavored medications include heartworm prevention (Heartgard, Interceptor), Rimadyl, Deramaxx, various antibiotics (Baytril), several vitamin or other health supplements. Please alert us if you think your pet is on a flavored medication. Most medications come in a non-flavored form, and we can work with your regular vet in selecting the appropriate alternative. We also recommend discontinuing fish oil supplements during the diet trial.

What if my pet is on a flavored heartworm preventative?

If you are treating your pet during the diet trial for possible parasites with Revolution, a topical spot on, or Ivermectin, then your pet is covered for heartworms. You will not need to resume heartworm prevention for 4 weeks past the last dose of either product. Alternatively, you can give the heartworm preventative at the beginning of the diet trial and again at the end (if not exceeding 8 weeks) with no concern for contraction of heartworms. If exceeding 8 weeks for your diet trial, please discuss with us your alternatives for prevention.

What if I have other dogs or cats on different foods?

If you have multiple dogs, then it is very important that the pet on the hypoallergenic diet trial does not have access to the other dogs' food. This means either feeding them separately (even if one has to be in a crate or a different room), and making sure to pick up any uneaten parts of the meal. Alternatively, all dogs can be temporarily fed the prescription diet to avoid cross-contamination. If you have cats, then the cat food should be kept in a separate room fenced off with a baby gate, or elevated to a high place where the dogs cannot reach. Also, if the dogs like to "snack" in the cat litter boxes, then the litter boxes should be kept in a separate room fenced off with a baby gate. If this is not possible, then an indoor electronic barrier system such as the Innotek Indoor Zone collar should be used to keep the dog away from the litter boxes.

Oral allergy syndrome - What is it?

Oral allergy syndrome is due to a cross-reactivity between plant proteins from pollen and fruits or vegetables. When a child or adult with pollen allergy eats a fresh fruit or vegetable, the immune system sees the similarity and causes an allergic reaction. Interestingly, many patients with oral allergy syndrome can eat the same fruits or vegetables when they are cooked. The cooking process changes the protein enough that the immune system does not recognize the food as being the same as the pollen anymore. Sometimes foods in the same botanical family will also cause reactions. Examples are potato and carrot; parsley and celery or apple and pear.

Who is affected?

OAS most commonly occurs in people with asthma or hay fever from tree pollen who eat fresh (raw) fruits or vegetables. Other pollen allergies may also trigger OAS. Adults appear to be more affected than children.

Symptoms

Rapid onset of itching or swelling of the lips, mouth or throat are the most common symptoms of OAS. Other symptoms may include irritation of the gums, eyes or nose. Symptoms normally appear within minutes of eating the offending food.

Symptoms are often worse during the spring and fall pollen season.

Pollen	Potential Cross-reactive Foods
Ragweed	Bananas, melons (watermelon, cantaloupe, honeydew) zucchini, cucumber, dandelions, chamomile tea
Birch	Apples, pears, peaches, apricots, cherries, plums, nectarines, prunes, kiwi, carrots, celery, potatoes, peppers, fennel, parsley, coriander, parsnips, hazelnuts, almonds, walnuts
Grass	Peaches, celery, melons, tomatoes, oranges
Mugwort	Celery, apple, kiwi, peanut, fennel, carrots, parsley, coriander, sunflower, peppers
Alder	Celery, pears, apples, almonds, cherries, hazelnuts, peaches, parsley
Latex	Bananas, avocado, kiwi, chestnut, papaya

In most cases OAS does not require medical treatment. It is best to avoid the offending foods. Often just peeling or cooking the food will reduce the effects. At times, an antihistamine can effectively relieve the symptoms. In adults and children with severe recurrent OAS, [immunotherapy](#) (allergy shots) to the pollen have been useful.

Dermatology Pearls

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Dermatology Clinic for Animals

www.dermvettacom.com www.dermvetolympia.com

Drawbacks of OTC “hypoallergenic diets” and blood testing for food allergy

Some pet owners ask us why we prefer a prescription or home cooked hypoallergenic diet rather than more convenient over the counter hypoallergenic diets. Although OTC diets may be well-intentioned, higher levels of quality control in manufacturing make prescription hypoallergenic diets preferred over OTC diets as the test diet for food allergy. Many OTC “lamb and rice” diets also contain chicken and corn, and even some OTC diets claiming to be actual restricted novel proteins contain other ingredients such as eggs when the ingredient list is carefully examined. Similarly, consideration must be taken in manufacturing processes where cross contamination may occur. Packaging for all OTC products generally take place on the same machinery and residual food product from a non hypoallergenic food may be unintentionally placed into packaging for another specialized diet.

A recent study compared ingredients between a prescription venison-based diet and four OTC venison diets selected based on not having listed soy, beef, or poultry in the product ingredient list. Each diet was tested for soy, poultry, and beef antigens by an outside food laboratory. **The veterinary therapeutic diet was negative for all 3 food antigens. Three of the four OTC venison diets tested positive for soy, poultry, and/or beef. One of the OTC venison diets was negative for all the test antigens, but contained rice protein.**

In another study, laboratory testing for soy was performed on four dry pet foods carrying the claim “made with no soy”. **Three of the four diet “no soy” samples tested positive for soy antigen.** The conclusion of the study was that dog food diets that claim to contain “no soy” may contain high concentrations of soy protein antigen and therefore should not be considered for soy elimination trials. This is likely the same for other ingredients in many other foods as well.

In another disturbing case in 2010, the FDA sent a letter of reprimand and demand for compliance with labeling regulations to a prominent OTC dog food manufacturer **after laboratory analysis of their lamb diet revealed no lamb, but beef was substituted instead. Additionally, the grain free duck formula pet food from the same manufacturer was found to not contain any duck.**

Another question pet owners often ask is why blood testing for food allergy in animals is not recommended. In dogs, blood testing for food allergy is unfortunately not accurate, likely because food allergy in dogs may not be solely IgE related. In one study of dogs known to be soy and corn allergic, ingestion of offending food items caused significant itching, however measured soy and corn-specific antibody levels were not significantly elevated and could not be used to predict clinical sensitivity. In another study of dogs with clinically proven food allergy compared to control dogs (normal and non-food allergic skin disease), blood testing for food allergy showed positive reactions in only 2 of the control (normal) dogs and none of the food allergic dogs. **These studies demonstrate that a negative food allergy blood test does not accurately predict the absence of food allergy in dogs.**

A third study evaluated blood testing for 15 different foods in 91 dogs with pollen allergies (in which food allergy had been previously ruled out with a hypoallergenic diet trial), 72 dogs with gastrointestinal disease unrelated to food sensitivity, and 91 normal dogs. This study found that the normal dogs had more positive reactions to chicken, turkey, lamb and eggs, the dogs with pollen allergies had more reactions to wheat, egg, fish, pork, turkey, rice, soy, and yeast, and the GI disease group had more reactions to multiple food allergens, likely due to increased intestinal permeability from pre-existing disease. This increased reactivity in pollen allergic dogs may reflect a non-specific upregulation of the immune system to a variety of antigens with no clinical significance. **These results show that positive results of food allergy bloods testing do not correlate with clinical food allergy in dogs.** With the known inaccuracy of food allergy blood testing in companion animals, it makes more sense to spend the pet owner’s time and funds on the prescription or home cooked hypoallergenic diet trial which is both diagnostic *and* potentially therapeutic.

Butcher Shops

It's always a good idea to call ahead and ask if they have the meat available.
Meats ok to get : Rabbit , Kangaroo , Ostrich , Snake

Gibsons Custom Meats
7912 Martin Way East
Olympia, Wa 98516
360-489-0129

Stewart's Meats
17821 state Hwy 507
Yelm, Wa 98597
360-458-2091

AA Meats
5116 111th Street SW
Lakewood, Wa 98499
253-588-7979

Western Meats
4101 Capital Blvd S
Tumwater, Wa 98501
360-357-6601