

Food Allergies

Your Pet's Itchy Skin

Itchy skin in the small animal is often more than just a minor annoyance. Red, oozing bald patches, rashes, and large expanses of hair loss are unfortunate markers of very real discomfort for which a cause should be sought and specifically dealt with. The food allergy is one of the itchiest conditions known to cat and dog. Animals eat a variety of processed food proteins, fillers, and colorings which are further processed inside their bodies. Proteins may be combined or changed into substances recognized by the immune system as foreign invaders to be attacked. The resulting inflammation may target the GI tract or other organ systems but, in dogs and cats, it is the skin that most often suffers from this immunologic activity. Many people erroneously assume itching due to food allergy requires a recent diet change of some sort. In fact, the opposite is true. Food allergy requires time to develop; most animals have been eating the offending food for years with no trouble.

What Kind of Allergy?

Sarcoptic mange and inhalant allergy (also known as atopy) are the two conditions which must be distinguished from food allergy as the treatment approach to each is markedly different. Much time and money can be wasted pursuing the wrong the problem.

Please consider the following clues which contribute to pointing us towards the food allergy as a diagnosis. Your pet demonstrates:

- Your pet has been treated for sarcoptic mange without any positive change.
- Your pet's itchiness is not and has never been a seasonal problem.
- Your pet has responded poorly or only partially to cortisone-type medications.
- Your pet has had a skin biopsy demonstrating changes often associated with allergy or, more specifically, food allergy.
- A lesion distribution pattern which is common for food allergy (see illustration at top of page)

Please note that three of the above four criteria relate to what you, the owner, observe at home. Trouble results when the veterinarian must speak to different family members about the pet and there is disagreement in their observation of the pet at home. It is best to have one person, preferably the one who has the most contact with the pet, be the spokesperson and make the relevant judgments.

The Flea Factor

Some animals have many allergies. It would not be particularly unusual for an animal with a food or inhalant allergy to also be allergic to flea bites, especially considering that flea bite allergy is an extremely common allergy among pets. Because allergies add to each other, it is possible that a food allergic dog will not itch if its fleas are controlled. Since new technology has made flea control safe and convenient, it is especially important (and no longer difficult) to see that fleas are not complicating a pet's itching problem.

Ensure immaculate flea control for any itchy pet!

How to Deal with the Food Allergy Suspect: The Hypoallergenic Diet Trial

The Basic Principle

To determine whether or not a food allergy or intolerance is causing the skin problem, a hypoallergenic diet is fed for a set period of time. If the pet recovers, the original diet is fed for up to two weeks to see if itching resumes. If we see recovery with the test diet and itch with the original diet, then food allergy is diagnosed and the pet is returned to either the test diet or another appropriate commercial food indefinitely.

What Is a Good Hypoallergenic Diet?

There are two approaches to this question. Obviously, the test diet must be of a food source that the patient could not possibly be allergic to. The traditional method is the use of a novel protein and carbohydrate source; that is, something the pet has never eaten before. In the past, lamb has been the protein source of choice as American pet food companies had traditionally failed to produce lamb-based pet foods. Unfortunately, recent production of lamb and rice-based foods has removed lamb from the acceptable hypoallergenic diet list.

Fortunately, many pet food companies have discerned the need for diets using unusual protein and carbohydrate sources with a minimum of additives. Foods can be obtained based on venison and potato, fish and potato, egg and rice, duck and pea, and even kangaroo. Our hospital generally recommends duck and potato based foods for dogs and duck and pea based foods for cats. We have chosen these products because they are available both as canned as well as dry formulas. (Most pet owners prefer to feed a combination of dry and canned food.)

It is important that during the diet trial no unnecessary medications be given. No edible chew toys (such as rawhides or bones) should be given. Treats must be based on the same food sources as the test diet. (Beware of rice cakes, though, as wheat is commonly used as a filler.) Chewable heartworm preventives should be replaced with tablets. Home cooking was originally the only option felt to be appropriately free of allergens but for most animals these special commercial foods are adequate. Occasionally home cooking ends up being necessary after all.

The Hydrolyzed Protein Method

Recently a new approach has been introduced using therapeutic diets made from hydrolyzed proteins. This means that a conventional protein source is used but the protein is broken down into molecules too small to excite the immune system.

How Long to Feed the Trial Diet

In the past, 4 weeks was thought to represent a complete trial period. More recent work has shown that some food allergic animals require 8 to 10 weeks to respond. This may be an extremely inconvenient period of time for home cooking. Our current recommendation calls for a recheck appointment or phone call after four weeks of diet trial and then again after eight weeks of trial. Eighty percent of food allergic dogs will have responded to diet trial at least partially by six weeks. The Labrador retriever and cocker spaniel appear to require up 10 weeks of trial diet before showing a response. Some animals may even require a longer period.

All commercial diets mentioned have a 100% guarantee. This means that if your pet doesn't like the food, the food can be returned for a complete refund (even if the bag is opened). This is especially helpful for feline patients, as cats are famous for being choosy about what they are willing to eat.

What to Do if the Diet is Successful?

To confirm food allergy, return to the original food; itching resumes within 14 days generally if food allergy was truly the reason for the itchy skin. Many people do not want to take a chance of returning to itching if the patient is doing well; it is not unreasonable to simply stay with the test diet if the pet remains free of symptoms. It is possible to more specifically determine the identity of the

offending foods after the pet is well. To do this, a pure protein source (such as cooked chicken, tofu, wheat flour or any other single food) is added to the test diet with each feeding. If the pet begins to itch within 2 weeks, then that protein source represents one of the pet's allergens. Return to the test diet until the itching stops and try another pure protein source. If no itching results after two weeks of feeding a test protein, the pet is not allergic to this protein.

What to Do if the Diet is Unsuccessful?

Generally, an unsuccessful food trial is strongly suggestive that an inhalant allergy is really the primary problem but there are some other considerations that should at least be mentioned: Are you certain that the dog received no other food or substances orally during the trial? Was sarcoptic mange ruled out? Your pet may require a longer diet trial. Are you certain regarding the factor that pointed us toward the food allergy? If your pet has not been biopsied, now may be a good time. If an inhalant allergy has risen to the top of the list, symptomatic relief either via medication, special baths, or allergy shots will likely be necessary. Chronic itchiness can be extremely uncomfortable and prompt relief is the goal.

Food Allergy Trials in Dogs

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What Signs can be seen with a Food Allergy?

A food allergy is a reaction to food that involves the body's immune system. It is usually always a protein particle in the food that is responsible for reactions. Your dog may itch, lick, and chew paws, flank, groin, neck, and ears. The itching can be during all seasons. A small percentage of food allergy dogs may only have chronic otitis. The dog may also have some gastrointestinal signs such as chronic vomiting, diarrhea, belching, and frequent bowel movements. Food allergy dogs often have both varying degrees of skin signs and gastrointestinal problems that persist.

How Does your Veterinarian Select a Diet for a Food Allergy Trial?

With this information an appropriate diet can be selected for the food trial. Your veterinarian will first want a complete medical history. The most important information you will need to provide is a thorough history of what foods and treats your pet has eaten. This includes table scraps and chew toys with food flavorings.

The diet selected will contain a "novel" protein and carbohydrate source meaning that your dog has not eaten this protein source in the past. Your veterinarian may recommend a food allergy trial based on skin and possible gastrointestinal signs.

What Diets are Currently Available for a Food Allergy Trial?

Commercial diets sold "over the counter" may claim to be "hypoallergenic" or "good for sensitive skin." It is important to realize these claims have no official meaning. These diets can be misleading because the pet food companies do not have to list every ingredient on the label. Close inspection of the label can identify inappropriate proteins and the manufacturer can substitute other ingredients as long as they meet the guaranteed analysis. It is best to use the diet your veterinarian has selected for a proper food allergy test. Diets that are used in food allergy trials are in one of these categories:

- Prescription Diets
- Low Antigen Diets
- Home Made Diets

Prescription diets are made by pet food companies to specifically and always contain the same ingredients. The protein source and carbohydrate source never change in these food allergy diets. These diets are only available through veterinarians. They are formulated to treat a medical condition, in this case, food allergies. The protein(s) in a diet that can be responsible for food allergy signs are called antigens. Low antigen diets are also prescription diets. In these diets, the protein has been formulated (hydrolyzed) to be so small that it will not stimulate the immune system. The diet may also have used small carbohydrates as well to avoid the potential immune response to proteins in the carbohydrate component of the diet. Some of the current examples of these diets made by specific pet food companies are listed below. Again your veterinarian will need to carefully evaluate your dog's dietary history and any other current medical issues to select the best diet for the food allergy trial.

Hill's Diets:

Prescription diets:

D/D canned/dry- salmon & potato/rice
D/D canned/dry- duck & potato/rice
D/D canned/dry-venison & potato/rice
D/D dry – egg & rice
D/D canned-lamb & rice

Low Antigen diets:

Z/D Ultra Allergen Free dry and canned-hydrolyzed chicken and refined starch
Z/D Low Antigen –dry and canned-hydrolyzed chicken and single source carbohydrate (potato)

Purina Diets:

Low Antigen diets:

LA Limited Antigen dry-salmon and rice
HA hypoallergenic dry-hydrolyzed soy

Iams Diets:

Prescription diets:

Response FP dry and canned-fish and potato
Response KO dry-kangaroo, canola meal, and oat flour

Royal Canin:

Low Antigen diet:

Hypoallergenic HP 19 dry-hydrolyzed soy and rice

Prescription diets: (IVD)

Potato and Duck dry and canned-duck protein and potato (also has light formula)
Potato and Rabbit dry and canned- rabbit protein and potato
Potato and Venison dry and canned- venison protein and potato (has large breed formula-dry)
Potato and Whitefish dry and canned-whitefish protein and potato

If your pet will not eat one of the above diets, or has a concurrent medical issue that prevents the use of these diets, then a home made diet may need to be used. Home made diets usually contain a novel protein source (for your pet) and a carbohydrate. A home made diet recommended for your dog can not be fed long term. It can be fed for the length of a proper food trial without any concerns. It is not formulated to be a long term complete and balanced diet for your dog because it is deficient in necessary nutrients. Your veterinary may consult a veterinary nutritionist to formulate this diet. The diet initially contains only two ingredients: a protein source and a carbohydrate source. Some of the protein and carbohydrate sources a veterinary nutritionist may select from include:

Protein Source: tuna, salmon, pinto beans, rabbit, game meats, and garbanzo(chick peas)

Carbohydrate Source: yams, sweet potatoes, pumpkin, oats, barley, and quinoa

Common Food Trial Pitfalls

The hallmark of a successful food trial is feeding only the prescribed diet for the required period of time. There are many pitfalls that can occur during a food allergy trial. These pitfalls must be avoided or the food allergy trial will be inconclusive. You and your veterinarian will be unable to determine whether your dog does indeed have food allergies.

The most common pitfalls in food allergy trials include:

1. The client does not understand why the veterinarian has recommended a feeding trial, how the feeding trial will be conducted, their role in completing the food allergy trial properly, and the ultimate goals of the trial.

IDEAS:

- Your veterinarian must communicate the specific reasons for a conducting a food allergy trial and outline how to complete a proper food allergy trial. Expectations and goals should be clearly expressed.
- Schedule request recheck exams and/or phone progress reports
- The veterinarian should provide other sources of current information about food allergies and food allergy trials.
- The owner should feel comfortable asking questions throughout the trial.

2. Feeding your dog any type of snack or chew toy with food flavoring can affect the length and success of the food trial. This mistake may not be just the owner, but can include visitors, relatives, delivery men and children.

IDEAS:

- Use pieces of the dry kibble (if a dry diet is used for the food trial) in a Kong to provide snacks, entertainment and chewing.
- If a canned diet is fed, take slices of the canned diet and bake them into dry snacks.
- Inform visitors that your dog is on a strict diet and cannot be given any other foods except the diet that has been prescribed. Give visitors prescribed kibble or your baked can treats to feed.
- When visitors crate the dog or put the dog in a place with no access to visitors.
- Family members must understand the food allergy trial and realize the importance of absolutely *no snacks*.
- If senior relatives are home with the dog, send the dog to play groups or take the dog to work if possible. Give the relative only acceptable treats. Again, relatives must be a part of the effort to complete the food allergy trial.

3. In a multiple pet house you must prevent the patient from eating the other dog's food. If there is a cat in the household, eating the cat food will disrupt the food trial.

IDEAS:

- Stand over the dogs or separate the dogs when they are fed.
- Feed the other dogs(s) a very palatable diet that they will eat immediately. This may limit left over food for the patient to get into. Still, remember the feces will need to be picked up immediately. Even a small lick of an inappropriate food can potentially be a pitfall in a food allergy trial.
- If possible, put all the dogs on the new diet.
- Put the cat food up out of the dog's reach. Place the cat food in a room a small enough entrance that only the cat can gain access to the food.
- Avoid or stop free feeding all pets in the household so inappropriate food access is controlled.

4. The dog is given flavored medication such as chewable heartworm pills, flavored antibiotics or anti-inflammatories. The dog may also be given a flavored vitamin mineral supplement, joint supplement or coat supplement.

IDEAS:

- Flavored heartworm preventatives will be replaced by an acceptable nonflavored pill, topical, or possibly an injection.
- Be sure to ask your veterinarian before giving any supplements or medications during a food allergy trial.
- If your dog is treated at an emergency clinic where the veterinarian is not familiar with your dog's history, be sure to let them know the dog is currently on a strict food allergy trial. Inform them what diet the dog is eating.

5. The dog is not confined and wanders. This patient will be able to get into the garbage, compost piles or the neighbor may feed him treats.

IDEAS:

- Keep your dog inside.
- Be sure your own garbage is not within the dog's reach.

6. You do not want to continue with the feeding trial because you do not see any improvement in you dog's condition.

IDEAS:

- Schedule an examination with your veterinarian to discuss your concerns. Your veterinarian has recorded the initial signs and reasons for starting the food trial. Your veterinarian may note and document improvements in your dog. These improvements may be slower than you would prefer or expected. Your veterinarian can give you more information and the encouragement you need to complete the food trial.
- Take photographs of your dog before you start the feeding trial and then biweekly to monitor your dog's progress. You can also keep a diary if the dog has had gastrointestinal reactions to food.
- You must be aware that a complete food trial can take 12 to 16 weeks so your patience and persistence are needed.

7. You read or were told by a friend that there is a blood test for food allergies in dogs.

- Currently these tests are not accurate and are not reliable. They can not be used to select an appropriate diet for your dog. A food allergy trial is the only way to determine if your dog has food allergies.

A positive food allergy trial can improve your dog's itching and/or gastrointestinal signs. This means your veterinarian now has a way to treat and manage your dog with an appropriate diet and treats. After the trial you will have the option of continuing the prescription diet. If a home made diet has been used in the food trial, and you and your veterinarian would like to continue that feeding plan, the diet must be balanced. Your veterinarian will confer with a veterinary nutritionist to balance the diet. When the trial home made diet is complete and balanced, it can be your dog's diet forever.

If you elect to try and find an "over the counter" dog food rather than the prescription or homemade food trial diet you and your veterinarian conduct a food challenge test. A new ingredient is added to the successful diet and the dog's response is followed. If there is no return of the original skin or gastrointestinal signs, the dog is not allergic to that ingredient. After testing several new ingredients, your veterinarian or a veterinary nutritionist can select a commercial diet you can safely feed your dog.

Food allergy trials are the only available means to determine if your dog has food allergies. Current diet options are listed above. The trial can be long and difficult. Outlined are many of the common pitfalls and ideas to avoid them. With a team approach, you and your veterinarian can successfully complete a food allergy trial. If a food allergy trial works, then the long-term treatment for the health of your dog is an appropriate diet.