

## FOOD ALLERGY AND HYPOALLERGENIC DIETS

Food allergies can occur in animals as a reaction to any component in their food. This most often is a protein component (ex. beef, chicken, fish, egg, etc.), carbohydrate (ex. corn, wheat, soy, etc.), but may also be an additive or preservative. The onset of the problem is usually not related to any diet change, as most animals have been eating the food that they develop allergy to for 2 or more years. The problem can start at any age.

The most common sign is itching. This is seen as foot licking, leg chewing, face rubbing, armpit, belly and groin licking. Inflammation and redness of the skin may occur. Head shaking and ear infections are also common. Food allergy may also show unusual signs, including recurrent pyoderma. Clinical signs associated with food allergy persist as long as the aggravating food item is present. If this item is in the daily diet, then the clinical signs persist year round. If the food item is only eaten during certain times of the year, then signs may only persist during that time.

There is no quick and simple test available to diagnose food allergy. Blood tests and skin tests are not useful to diagnose food allergy. The only method to diagnose food allergy is to feed the pet a restricted diet for 8-12 weeks to determine if there is improvement, then to rechallenge with the former diet and watch for a recurrence of clinical signs. If there are any secondary infections present (bacteria/yeast) these need to be treated during the diet trial and rechallenge period.

Since most commercial diets contain similar types of ingredients, simply changing the brand of food is unlikely to help. A diet that contains a protein source and a carbohydrate source that the pet has NEVER eaten must be fed exclusively for 8-12 weeks. This is called a hypoallergenic diet because an allergic reaction should not occur to a food that an animal has never eaten. It can take this long for the diet to work, and alleviate clinical signs. No other foods, treats, table scraps, rawhides, chewable medications (such as flavored heartworm medications), or anything that is flavored can be fed during the trial. We recommend washing toys or purchasing new toys since food residues from the former diet may be present on these. Only the ingredients of the hypoallergenic diet can be fed. If anything is eaten other than this diet, then the 8-12 week diet trial must be started all over again. Tap water is usually ok, but sometimes distilled water is used.

The actual ingredients of the hypoallergenic diet will depend on what the pet has eaten in the past. To determine this, we make lists of those food items, and ingredient lists from past diets. Since many pets have not eaten venison, rabbit, duck, potato, and peas, these are items that we often use. Lamb, rice and fish (in the form of fish meal) are in many

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commercial foods, so may not be used in these diets. Home cooked diets (balanced with vitamins, minerals, calcium, phosphorus and oils) are always preferred since this also eliminates the possibility of the additives/preservatives causing the allergy. These diets can be made in large proportions and frozen for future use. Since this may not always be possible, prescription diets are sometimes used. If there is no response to the prescription hypoallergenic diets, then a home cooked diet may have to be done anyway.

Diets should be introduced slowly over a 4-5 day time by gradually mixing the new food in with the former diet. This will minimize the chance of gastrointestinal upset (such as vomiting or loose stool). If these problems persist despite the gradual transition of the diet, please notify the doctor. It is also important that cats do not stop eating, since this may result in severe systemic disease in some individuals. Cats may require several types of diets in order to find one that they will eat. Once the diet is being fed as the only food source, this is considered day 1 of the 8-12 week trial.

The level of itching should be measured on a scale of 1 to 10, with 10 being the itchiest your pet has ever been, and 0 no itching at all. This scoring should be continued on a regular basis over the course of the diet trial to determine if there is a response.

It will be important to monitor the presence of recurrent secondary infections (bacteria and yeast) by examining and looking for organisms by skin cytology during the entire food trial, and treating for infections when present.

If there has been noticeable improvement after the 10-12 week food trial, we will rechallenge the pet with the former diet to see if clinical signs reappear. This may occur in a few hours or may take many days (usually less than 14). If signs reappear, then food allergy is likely to be the problem. If the problems do not reappear, then there is no allergy to those foods eaten during the rechallenge.

If there has been slight to no improvement after the 10-12 week food trial, and the pet has eaten nothing but this diet and all the infections that have been present during the trial have been concurrently treated, then there is most likely another underlying cause of the skin problem. When this happens, we will still rechallenge and watch for the clinical signs to worsen. If there is worsening, then food allergy is likely to be present as well as some other underlying problem.