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HOT TOPIC

Food allergies & food intolerances in pets

In focus

The terms “food allergy” and “food intolerance” are often used interchangeably, but they are not the same. How do they compare, and how are they diagnosed and managed?

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Food allergy or food intolerance: What is the difference?

Food allergies and food intolerances are types of adverse food reactions. They are instances of abnormal (unexpected) responses to a “normal” food or food additive, versus, for example, a food toxicity, also an adverse food reaction but a normal (expected) response to an abnormal food.

A **food allergy** occurs when the pet’s immune system mounts a response to a specific food substance. An allergic reaction does not occur on first exposure to a food; a previous exposure is required for the immune system to recognize the allergen. A **food intolerance** is not recognized as having a specific immune component. A food intolerance can occur anytime, on first or later ingestion.[1] Types of food intolerances include metabolic (e.g., lactose intolerance) and idiopathic.[2]

In practice, the distinction between food allergy and food intolerance is rarely made. Although the etiology differs, clinical signs, diagnosis, and nutritional management are similar, if not the same.[3]

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Clinical signs of food allergies and food intolerances

Pets with food allergies and intolerances exhibit similar clinical signs, typically dermatological and/or gastrointestinal.[3,4] The most consistent dermatological sign is a non-seasonal pruritus, typically localized in cats to the head, neck, and face, and generalized in dogs.

When localized in dogs, commonly affected areas include the ears, feet, abdomen, and/or face.[5] The most common gastrointestinal signs are diarrhea and vomiting.[4]

Prevalence of food allergies and food intolerances

Reported prevalence of food allergies and intolerances in dogs and cats varies, at least in part, due to differences in the patient populations evaluated and the methods of diagnosis used.[6]

Up to **24%** of dogs presented for skin conditions at a specialty practice or university were diagnosed with food allergy/intolerance versus only **0.4%** of dogs presented for skin conditions at a general practice.[6,7]

Food allergens are proteins. While protein from any food is potentially allergenic, the most common pet food allergens are the proteins found most often in pet diets,[3] which vary between countries.

COMMON PET FOOD ALLERGEN SOURCES[1,8]

- Beef (40%)
- Dairy (20%)
- Chicken (13%)
- Wheat (11%)
- Eggs (7%)
- Lamb (5%)

- Beef (20%)
- Fish (15%)
- Dairy (14%)
- Lamb (6%)
- Poultry (5%)
- Barley/Wheat (4%)

Diagnosing food allergies and food intolerances

A dietary elimination trial is the gold standard for diagnosing food allergies and intolerances in pets.[1,4] Blood, intradermal, patch, saliva, and hair testing methods are not validated and not considered reliable for diagnosis of food allergies.[4]

A dietary elimination trial involves feeding an elimination diet—a home-prepared diet or a commercial hydrolyzed, amino acid-based (elemental), or novel protein diet.[4] Hydrolyzed or elemental diets are especially useful when a novel protein cannot be identified due to an incomplete or varied dietary history.[9] Proteins in hydrolyzed diets have been broken down so the body is less likely to recognize the allergens.[1,10,11] Elemental diets provide protein in its simplest form—amino acids—and may help manage even the most highly sensitized pets.[9]

The diet should be fed for at least 8–12 weeks in pets with dermatological signs. Two to 4 weeks should be sufficient for gastrointestinal signs to resolve. A definitive diagnosis may take longer due to the time involved in re-challenging. Compliance is key to a successful dietary elimination trial; only the elimination diet should be fed.[4] In addition to the primary protein sources, protein allergens may be found in grains and other dietary ingredients, so each component of the diet must be considered.[2]

> Long-term nutritional management of pets with confirmed food allergy or intolerance involves avoiding the identified allergen or offending ingredient, or continuing the hydrolyzed, elemental, or complete and balanced novel protein diet.[1]

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