

# A shock to the system

*In the first of a new series of monthly veterinary advice columns, **Ray O'Mahony** MVB MRCVS MAVH discusses food allergies, from the common irritants and symptoms they produce to the remedies available to dog owners*



## WHAT IS A FOOD ALLERGY?

An allergic reaction is an immunological reaction. An individual's immune system recognises the allergen in question as foreign and mounts an inflammatory response against it. The allergen is the particle that the immune system responds to, for example pollens in hay fever, wheat gluten in coeliac disease or milk protein in dairy allergies. Allergens are always proteins, but as in the case of wheat gluten (gluten is a group of proteins in wheat) a dog can still be allergic to a carbohydrate source, something to remember for later when choosing an appropriate diet.

## HOW MIGHT A DOG WITH A FOOD ALLERGY PRESENT?

Food allergies in people range from the benign such as skin inflammation or hives, to the potentially life-threatening such as anaphylactic reactions to nuts. In dogs, reactions are usually limited to the skin and/or digestive tract inflammation,

although, occasionally, swelling of the face and head with resulting breathing difficulty can occur. Skin inflammation is itchy and the resulting biting and scratching often leads to secondary infections that can ooze or become crusty. Digestive tract inflammation may occur with or without skin involvement and recurrent intermittent diarrhoea due to inflammatory bowel disease is common. Colitis or inflammation of the colon gives rise to droppings that may contain blood and/or mucus and may have a sausage skin-like covering.

Food allergies are the third most common reason for skin inflammation and itching in dogs, after atopy and flea allergies. Allergies can develop to any food source and the most commonly implicated are some of the most common food ingredients such as beef, dairy and wheat. The increasing prevalence of chicken as a protein source in dog foods has led to an increase in allergies to what was once

**Certain breeds of dogs are more susceptible to food allergies including Dachshunds, cocker spaniels and retrievers**



considered a hypoallergenic ingredient.

There is no hard and fast rule for diagnosing food allergy-related skin disease but if a dog is also showing digestive tract signs, then it is likely that a food allergy is partly responsible. Another good indicator that a dog with skin disease may have a food allergy is they often do not respond well to corticosteroid medication. Even for vets, definitive diagnosis is not always straightforward because the available allergy screen blood tests are insensitive for food allergens, giving unreliable results. The only way to truly diagnose a food allergy is to carry out a dietary control test.

### HOW CAN WE HELP DOGS WITH FOOD ALLERGIES?

If a food allergy is suspected all the components of the dog's diet, including treats, must be looked at. Owners may also consider choosing a complete food with a single protein source and a single carbohydrate source that the dog has not been exposed to previously. This reduces the variety of proteins the dog is faced with and thus, the likelihood of a reaction. More obscure protein-source diets are now widely available utilising meats such as rabbit, venison and duck.

In our clinic we recommend foods containing potato as a carbohydrate source, as we feel dogs digest them better than grain-based diets. A fish and potato diet is often the best place to start, provided of course these ingredients have not formed part of the diet to date. Although many foods are now labelled as wheat-gluten-free there can be cross-reactivity with other members of the wheat family like spelt, rye and barley. Rice is another common carbohydrate source in hypoallergenic diets but it does not suit all dogs.

It can take up to 10 weeks for an animal to respond to the removal of dietary antigens, however a marked difference is normally seen in most dogs after three or four weeks. The dog must get absolutely nothing other than the selected food for the entire period, and this includes treats and titbits. Once the condition has settled, individual foods can gradually be added back into the diet, one at a time. A few weeks should be allowed between each new addition so that if the dog begins to react, the offending item can be identified and permanently removed from the diet.





Some vets advise using a sacrificial protein source for a couple of months until all clinical signs settle down, then to introduce a new protein source on which to maintain the dog. Theoretically, when the sacrificial protein is initially introduced, the dog's immune system is still in a heightened state and may react to it. It is not a strategy we have found necessary but that may be due to our use of herbs with a change in diet, which shifts the immune system back into a normal state more quickly.

#### NON-ALLERGIC FOOD RELATED PROBLEMS

Food intolerance occurs when a dog lacks the necessary enzymes to digest a particular food source – dairy intolerance is a good example. An affected dog would be unable to digest lactose, the sugar (carbohydrate) present in milk. It should be digested in the small intestine but instead ends up in the large intestine and disrupts the bowel environment causing bloating, flatulence and soft stools or diarrhoea. The immune system is not involved here and signs are confined to large intestine malfunction.

A dairy allergy on the other hand is an immune response directed against milk proteins and will cause more severe reactions. Sensitivities and other non-allergic reactions also take place, for example to food additives like colourings or preservatives. Some of these can be relatively violent with vomiting and diarrhoea but most are fairly mild, giving

rise to poor digestion, large volumes of droppings, a lack lustre coat or maybe poor energy levels.

#### RETAILER'S ROLE

As a retailer the most important thing when dealing with food allergies is to know your foods intimately. Know the products you carry and know what is in them. Don't just accept a hypoallergenic stamp on the front. Hypoallergenic only means less likely to cause allergy, however, as we saw above, if a dog with an allergy to chicken eats a hypoallergenic diet with chicken as its protein source, it will react to it. Look for single protein and single carbohydrate foods and stock at least two different varieties and avoid grains if possible. Stocking good quality foods that adhere to the latest FEDIAF guidelines on pet food labelling will allow you and your customers to choose the food that best suits their dog and avoid unnecessary additives.

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#### SUPPLIER LISTING

**Albion Meat Products:**  
[www.albionmeatproducts.co.uk](http://www.albionmeatproducts.co.uk)  
**Arden Grange:** [www.ardengrange.com](http://www.ardengrange.com)  
**Armitages Pet Care:**  
[www.armitages.co.uk](http://www.armitages.co.uk)  
**Bern Pet Foods:**  
[www.bernpetfoods.co.uk](http://www.bernpetfoods.co.uk)  
**Burgess Pet Care:**  
[www.burgesspetcare.co.uk](http://www.burgesspetcare.co.uk)  
**Burns Pet Food:** [www.burnspet.co.uk](http://www.burnspet.co.uk)  
**Doggy Things:** [www.doggythings.co.uk](http://www.doggythings.co.uk)  
**James Wellbeloved:**  
[www.wellbeloved.com](http://www.wellbeloved.com)  
**Natural Dogs:** [www.naturaldogs.co.uk](http://www.naturaldogs.co.uk)  
**Natural Pet Products:**  
[www.naturalpetproductsltd.com](http://www.naturalpetproductsltd.com)  
**Nestle Purina:** [www.purina.co.uk](http://www.purina.co.uk)  
**Roger Skinner:**  
[www.skinnerpetfoods.co.uk](http://www.skinnerpetfoods.co.uk)  
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