



## Library Article

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### **Chronic Diarrhea** **Written by: Linda Aronson, DVM**

Recently, I seem to be hearing about a lot of dogs with chronic small intestinal diarrhea. This generally results in loss of protein and other essential nutrients (particularly cobalamin, Vitamin B12) from the body, which in and of itself is debilitating. Finding the cause of the diarrhea and treating it must be our first goal, but this is not always easy. Some rule outs include: right sided congestive heart failure; lymphosarcoma and other gastrointestinal neoplasias; acquired secondary intestinal lymphangectasia; constrictive pericarditis; chronic intussusception or foreign body; infectious disease – bacterial, parasitic, protozoal, viral or fungal; granulomatous disease; hemorrhagic gastroenteritis; gastroesophageal ulceration; systemic lupus erythematosus; Addison's disease (hypoadrenocorticism); food allergy; and inflammatory bowel disease IBD). Let us consider the last two causes.

It seems like more and more dogs are diagnosed with IBD based purely on finding lymphocytes, plasma cells and/or eosinophils on intestinal biopsy. However, the gut is the largest immune organ in the body. It has to deal with large numbers and varieties of foods, bacteria, parasites and other potential antigens every day. Immune response - increased numbers of these cell types - should therefore be expected and is not diagnostic. IBD is primarily a disease of middle aged or older dogs, and is rarely seen in young animals. Before jumping the gun to reach this diagnosis, other causes of chronic diarrhea must first be excluded. In young dogs infectious disease would be the easiest to rule in or out. Once these have been excluded, the daunting challenge of food trials is next on the agenda. These are rarely conducted correctly. Blood and skin tests are not appropriate for diagnosing food allergy.

A food trial requires at least 6 to 8 weeks. It takes at least two to three weeks for the body to remove old antigens and even longer to resolve the inflammatory lesions they caused. Choosing an appropriate diet for the food trial is a huge stumbling block. Over the counter and home made diets may contain a wide variety of proteins and finding something truly novel especially in an OTC diet may be a challenge. Recently, many vets have recommended hydrolyzed diets in which the proteins are broken down into shorter and less complex molecules. The idea that these are less likely to cause allergy is, however, erroneous. In humans they have proven more



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antigenic and resulted in anaphylactic and other hypersensitivity reactions. Hydrolyzation also changes the osmolarity of the diets, and this in turn can cause rather than resolve diarrhea. The original protein from which the diets are hydrolyzed will continue to cause allergic reaction in at least 20% of patients too. Hydrolyzed diets may be appropriate, at least initially, for treating dogs with true IBD. In some cases of IBD dogs will only tolerate diets composed of individual amino acids. Once a novel protein based diet has been selected it should be fed exclusively for the course of the trial. The dog may receive no other treats or foods. If the diarrhea resolves, optimally the dog is challenged with the suspected allergen to see if the symptoms return. Many owners are understandably reluctant to challenge their dogs and risk a return of the dreaded squirts.

If the dog has food allergies, ingredients can be gradually added back into the diet – one every 2 weeks - to find what can be safely fed. Most dogs with food allergies can tolerate moderate to high levels of fat in their diets. Dogs with IBD require low fat diets. Unfortunately, most commercial diets with ultra-low fat levels are high in dietary fiber – which will reduce absorption of protein. Dogs with IBD may require routine injections of Vitamin B12 as it is not being produced by their own bacterial flora. They may also be prone to bacterial over-growth in the gut and require periodic antibiotic treatment (tylosin, tetracyclines or metronidazole are the most frequently prescribed drugs for this purpose). Supplementing with a good probiotic is also helpful in avoiding a return of the diarrhea. Unlike other diseases, food allergies and IBD can't be treated only managed.

Diarrhea is something virtually every dog owner will have to deal with from time to time. It is never pleasant. Fortunately, most causes of diarrhea are treatable and life goes on. For some dogs and their owners treating and avoiding the condition is a life-long struggle.