



## Your Pet and Chronic Diarrhea

### What can cause chronic diarrhea?

The first step in answering this question is to determine if the chronic diarrhea is due to disease in the gastrointestinal tract, or secondary to disease in another organ system (for example, some cats with the endocrine disease hyperthyroidism exhibit diarrhea as a major sign). To determine if the chronic diarrhea is secondary to another disease process, a comprehensive history, physical exam and preliminary screening labwork (CBC, biochemistry profile, urinalysis, fecal evaluation) is done. In some cases, additional specialized blood tests or diagnostic procedures may also be necessary to completely answer the question. If the diarrhea is not associated with disease in another organ system, the next step is to determine if the diarrhea is due to disease of the small bowel (small intestine) or disease of the large bowel (large intestine). Disease of the small bowel (duodenum, jejunum, ileum) usually has clinical signs that are distinctive and different from disease of the large bowel (descending, transverse and ascending colon). In some animals, the disease process will extend to involve both the small and large bowel.

### What are common clinical signs?

Patients with small bowel diarrhea often exhibit weight loss and poor body condition (as the major job of the small bowel is to facilitate digestion and absorption of nutrients). Without adequate digestion and absorption, the patient eats, but continues to lose weight. The undigested and unabsorbed nutrients appear in the stool, and this gives rise to increased volumes of soft stool. Patients with large bowel diarrhea in contrast, are usually in good body condition, as digestion and absorption of nutrients is not a major function of the large bowel. Rather, the major function of the large bowel is to absorb water, produce mucus and act as a storage receptacle. Clinical signs noted most often in patients with large bowel diarrhea include good overall body condition, increased frequency of defecation (but smaller amounts of stool), mucus in the stool, occasionally fresh red flecks of blood in the stool, and sometimes straining to defecate. Other clinical signs that may be present in patients with both small and large bowel diarrhea include intermittent vomiting, increased "loudness" of intestinal sounds (borborygmi) and flatulence. In cats, the inflammatory process in the intestinal tract may also concurrently involve the pancreas and/or the liver.

### What are common disease triggers that result in small and large bowel diarrhea?

There are numerous possible causes of both small and large bowel diarrhea. In some cases, the causative trigger only results in small bowel involvement, in other cases just large bowel involvement and in yet other cases, the disease process involves both the small and large bowel (causing the patient to have clinical signs of both small and large bowel diarrhea). Some of the more common causes of chronic diarrhea include food allergies, dietary indiscretion, inflammatory bowel disease, pancreatic exocrine insufficiency, intestinal parasitism, intestinal lymphangiectasia, infectious triggers (bacterial, fungal, mycobacterial, protozoal), psychological stress, anatomical abnormalities, tumor infiltration, and hereditary predisposition in some breeds.

Each patient is very unique as to cause and involvement of various portions of the intestinal tract. A comprehensive history, physical exam, and a variety of diagnostic tests (as well as potential therapeutic trials) are often necessary to determine the exact cause(s).

Common diagnostic tests that may be pursued (in addition to those noted above) include abdominal radiographs, abdominal ultrasound, and other ancillary tests (vitamin B12 levels, folate levels, TLI levels, infectious disease screens, etc). For many patients, a definitive diagnosis can only be reached by obtaining biopsy samples of the small and large intestine.

This may be accomplished by endoscopy (use of a flexible tube containing a camera on the end that is introduced into the intestinal tract), laparoscopy (minimally-invasive abdominal exploration) or celiotomy (surgical incision into the abdominal cavity).

### **How is chronic diarrhea treated?**

There is no single or simple answer to this question. Management of chronic diarrhea is geared towards uncovering the major cause(s) and addressing those specifically. Therapeutic trials are also frequently incorporated into the initial management of the patient with chronic diarrhea (as some causes can only be determined by response to a therapeutic trial). It is not uncommon to pursue multiple avenues of therapy as well as diagnostics concurrently in coming to the best and most effective treatment strategy. Some common therapeutic measures (depending on the underlying cause), may include anthelmintics (dewormers), multiple dietary trials, antibiotic therapy, antiprotozoal therapy, fiber supplementation, vitamin supplementation, probiotic use, anti-inflammatory medications and in cases of biopsy-proven inflammatory bowel disease, immunosuppressive therapy.

### **What is the prognosis for chronic diarrhea?**

The answer to this question depends on the cause(s) identified as well as the individual patient's response to therapy. Effective management of chronic diarrhea is characterized by the necessity for patience and good communication between the owner and veterinarian. Ongoing modifications in the treatment regimen are often necessary to effect the best possible course of therapy in each individual.