

Chronic Diarrhea in Dogs

Basics

OVERVIEW

- An undesirable change in the frequency, consistency, and volume of bowel movement (feces) for more than 3 weeks
- Can be either small bowel (small intestine) diarrhea, large bowel (large intestine or colon) diarrhea, or mixed small and large bowel diarrhea

SIGNALMENT/DESCRIPTION OF PET

Species

- Dogs

SIGNS/OBSERVED CHANGES IN THE PET

- Underlying disease process determines clinical signs

Small Bowel Diarrhea (Involves the Small Intestines)

- Larger to normal volume of bowel movement (feces)
- Frequency of defecation is normal to moderately above normal (2–4 times per day)
- Weight loss
- Increased appetite (known as “polyphagia”) in cases with abnormal digestion or absorption of food (known as “maldigestion” or “malabsorption,” respectively)
- May have black, tarry stools (due to the presence of digested blood; condition known as “melena”); no mucus or red blood in the bowel movement (presence of red blood in the bowel movement known as “hematochezia”)
- Little to no evidence of painful defecation or straining to defecate (known as “tenesmus”) or difficulty in defecating (known as “dyschezia”)
- May have excessive gas formation in the stomach or intestines (known as “flatulence”) and rumbling or gurgling sounds caused by movement of gas in the intestinal tract (known as “borborygmus”)
- Vomiting in some dogs
- Poor body condition with some causes of long-term (chronic) diarrhea
- Dehydration—variable
- Thickened intestines, abdominal fluid, foreign material, masses, or enlarged abdominal lymph nodes may be felt by your pet's veterinarian

Large Bowel Diarrhea (Involves the Large Intestines or Colon)

- Smaller volume of bowel movement (feces) per defecation than normal
- Frequency of defecation significantly higher than normal (greater than 4 times per day)
- No or little weight loss
- Often mucus or red blood in the bowel movement (hematochezia); no evidence of black, tarry stools (melena)



- Painful defecation or straining to defecate (tenesmus) and urgency to defecate
- Difficulty defecating (dyschezia) with rectal or lower colonic disease
- Excessive gas formation in the stomach or intestines (flatulence) and rumbling or gurgling sounds caused by movement of gas in the intestinal tract (borborygmus) is variable
- Vomiting in some dogs
- Body condition more typically normal
- Dehydration—uncommon
- Thickened intestines, masses, enlarged lymph nodes, or narrowing (stricture) may be felt by your pet's veterinarian

CAUSES

Small Bowel Diarrhea (Involves the Small Intestines)

Primary Small Intestinal Disease

- Inflammatory bowel disease—various types, including lymphoplasmacytic enteritis, granulomatous enteritis, eosinophilic enteritis, immunoproliferative enteropathy of basenjis
- Dilation of the lymphatic vessels (known as “lymphangiectasia”)
- Tumor or cancer—such as lymphoma or adenocarcinoma
- Parasites—*Giardia*, roundworms (*Toxocara*, *Toxascaris*), hookworms (*Ancylostoma*), and *Cryptosporidium*, *Cystoisospora*
- Bacterial infection—*Campylobacter*, *Salmonella*, *Escherichia coli*, *Clostridium perfringens*, *Yersinia*
- Viral infection—coronavirus, parvovirus, canine distemper virus, rotavirus
- Fungal disease—histoplasmosis and aspergillosis
- Pythiosis (infection with *Pythium*, a water mold)
- Partial blockage or obstruction—foreign body; folding of one segment of the intestine into another segment (known as “intussusception”); and cancer
- Antibiotic-responsive diarrhea (change in normal balance of microbes)
- Diarrhea and other signs caused by absence of a long section of small intestine, usually because of surgical removal (condition known as “short-bowel syndrome”)

Abnormal Digestion of Food (Maldigestion)

- Syndrome caused by inadequate production and secretion of digestive enzymes by the pancreas (known as “exocrine pancreatic insufficiency”)
- Liver disease leading to reduced bile salts for digestion

Diet

- Dietary intolerance or allergy
- Gluten-sensitive enteropathy in Irish setters
- Rapid change in diet

Metabolic Disorders

- Liver disease
- Decreased levels of steroids produced by the adrenal glands (known as “hypoadrenocorticism” or “Addison's disease”)
- Excess levels of urea and other nitrogenous waste products in the blood (known as “uremia”)

Other

- Poisons—food
- Side effect of medications

Large Bowel Diarrhea (Involves the Large Intestines or Colon)

Primary Large Intestinal Disease

- Inflammatory bowel disease—various types, including lymphoplasmacytic colitis, eosinophilic colitis, histiocytic ulcerative colitis
- Tumor or cancer—such as benign polyp, or lymphoma, adenocarcinoma, leiomyoma, and leiomyosarcoma
- Parasites—whipworms (*Trichuris*), *Giardia*, *Entamoeba*, and *Balantidium*
- Bacterial infections—*Campylobacter*, *E. coli*, *Salmonella*, and *Clostridium*
- Fungal disease—histoplasmosis

- Pythiosis (infection with *Pythium*, a water mold)
- Infection with algae—*Prototheca*
- Non-inflammatory causes (such as folding of one segment of the intestine [the ileum, or lower small intestine] into another segment [the colon]; condition known as an “ileocolic intussusception”)

Diet

- Diet—dietary indiscretion (that is, eating substances that should not be eaten), diet changes, and foreign material (such as bones and hair)
- Fiber

Other

- Unknown cause (so-called “idiopathic disease”)—irritable bowel syndrome

RISK FACTORS

Small Bowel Diarrhea (Involves the Small Intestines)

- Dietary changes and feeding poorly digestible or high-fat diets
- Large-breed dogs, especially German shepherd dogs, have the highest incidence of antibiotic-responsive diarrhea
- Large-breed dogs have higher risk of intestine twisting, can be at the same time as exocrine pancreatic insufficiency (EPI), a syndrome caused by reduced production of digestive enzymes by the pancreas
- Pythiosis (infection with *Pythium*, a water mold) occurs most often in young, large-breed dogs living in states bordering the Gulf of Mexico

Large Bowel Diarrhea (Involves the Large Intestines or Colon)

- Dietary changes or indiscretion, stress, and psychological factors
- Histiocytic ulcerative colitis (inflammation characterized by a thickened lining of the colon with varying degrees of loss of the superficial lining [known as “ulceration”]; the thickening is due to infiltration of various cells [histiocytes, plasma cells, and lymphocytes] in the layers under the lining) occurs most often in boxers less than 3 years of age; associated with invasion of *E. coli* bacteria
- Pythiosis (infection with *Pythium*, a water mold) occurs most often in young, large-breed dogs living in states bordering the Gulf of Mexico that spend time outside roaming and hunting

Treatment

HEALTH CARE

- Treat the underlying cause—symptomatic treatment with elimination diets may resolve long-term (chronic) diarrhea in 40-60% of dogs with uncomplicated digestive system disturbances
- Complete resolution of the signs is not always possible if inflammatory bowel disease, lymphangiectasia, pythiosis or cancer are present
- Fluid therapy, if pet is dehydrated
- Consider colloids for pets with low levels of protein in the blood (known as “hypoproteinemia”) that need fluid therapy; “colloids” are fluids that contain larger molecules that stay within the circulating blood to help maintain circulating blood volume, an example is hetastarch
- Correct electrolyte (such as sodium, potassium, chloride) and acid–base imbalances

DIET

- Feeding a lower-fat, novel (new to the patient), highly digestible, or fiber supplemented diet for 3–4 weeks may resolve diarrhea due to dietary intolerance or allergy
- Repeated changes of diet in order to maintain the dog symptom free suggest that further testing is warranted

SURGERY

- Biopsy of the stomach, small intestine, and/or large intestine by endoscope or ultrasound-guided is sometimes indicated
- Exploratory surgery of the abdomen and surgical biopsy if considering a mass, mid intestine disease, or poor response to therapy

Medications

Medications presented in this section are intended to provide general information about possible treatment. The treatment for a particular condition may evolve as medical advances are made; therefore, the medications should not be considered as all inclusive

- Medications vary, depending on underlying cause
- For IBD, prednisone or budesonide may be elected by the veterinarian
- Azathioprine or cyclosporine may be used for non-responsive IBD cases
- B12 vitamin supplementation may be recommended
- Probiotics may be used for some dogs
- Tylosin or metronidazole antibiotics may be used when antibiotic-responsive diarrhea is suspected

Follow-Up Care

PATIENT MONITORING

- Fecal volume and character, frequency of defecation, appetite, and body weight
- In dogs with protein-losing enteropathy (condition in which proteins are lost from the body through the intestines)—monitor serum proteins and clinical signs (fluid buildup in the abdomen [known as “ascites”], under the skin [known as “subcutaneous edema”], in the space between the lungs and chest wall [known as “pleural effusion”])

PREVENTIONS AND AVOIDANCE

- Depend on underlying cause

POSSIBLE COMPLICATIONS

- Dehydration
- Poor body condition
- Fluid buildup in the abdomen (ascites), under the skin (subcutaneous edema) and/or in the space between the lungs and chest wall (pleural effusion) with low levels of albumin (a type of protein) in the blood (condition known as “hypoalbuminemia”) from protein-losing enteropathy (condition in which proteins are lost from the body through the intestines)

EXPECTED COURSE AND PROGNOSIS

- Depend on underlying cause
- Complete resolution of signs is not always possible, despite a correct diagnosis and proper treatment
- Resolution of diarrhea usually is gradual after treatment; if it does not resolve with treatment, consider re-evaluating the diagnosis

Key Points

- Complete resolution of signs is not always possible, despite a correct diagnosis and proper treatment
- Some causes of long-term (chronic) diarrhea result in actual changes to the lining of the intestines that may require many months to resolve or that may not resolve