



CHRONIC DIARRHOEA IN DOGS

What is Chronic Diarrhoea in Dogs?

Chronic diarrhoea in dogs is the change in the frequency, consistency, and volume of bowel movement (faeces) for more than 3 weeks. It can be either small bowel (small intestine) diarrhoea, large bowel (large intestine or colon) diarrhoea, or mixed small and large bowel diarrhoea.

What is causes it?

Small Bowel Diarrhoea (Involves the Small Intestines)

Primary Small Intestinal Disease

- Inflammatory bowel disease—various types, including lymphoplasmacytic enteritis, granulomatous enteritis, eosinophilic enteritis, immunoproliferative enteropathy of basenjis, and sprue
- Dilation of the lymphatic vessels (known as “lymphangiectasia”)
- Tumour or cancer—such as lymphoma or adenocarcinoma
- Parasites—Giardia, roundworms (Toxocara), hookworms (Ancylostoma), and Strongyloides
- 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
- Condition in which a high number of bacteria are found in the upper small intestine (known as “small intestinal bacterial overgrowth”)
- Diarrhoea and other signs caused by absence of a long section of small intestine, usually because of surgical removal (condition known as “short-bowel syndrome”)
- Ulcers of the stomach and upper intestines (known as “gastroduodenal ulcers”)

Abnormal Digestion of Food

- Syndrome caused by inadequate production and secretion of digestive enzymes by the pancreas (known as “exocrine pancreatic insufficiency”)
- Liver disease

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
- Side effect of medications

Large Bowel Diarrhoea (Involves the Large Intestines or Colon)

Primary Large Intestinal Disease

- Inflammatory bowel disease—various types, including lymphoplasmacytic colitis, eosinophilic colitis, histiocytic ulcerative colitis, and granulomatous colitis
- Tumor or cancer—such as benign polyp, lymphoma, adenocarcinoma, leiomyoma, and leiomyosarcoma
- Parasites—whipworms (Trichuris), Giardia, hookworms (Ancylostoma), Entamoeba, and Balantidium
- Bacterial infections—Campylobacter, Salmonella, and Clostridium perfringens
- 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)
- Fibre

Metabolic Disorders

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

Other

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

Clinical Signs

- Larger volume of bowel movement (faeces) than normal
- Frequency of defecation is mild 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) diarrhoea
- Dehydration—variable
- Thickened intestines, abdominal fluid, and enlarged abdominal lymph nodes may be felt by your pet's veterinarian
- Large Bowel Diarrhoea (Involves the Large Intestines or Colon)
- Smaller volume of bowel movement (faeces) per defecation than normal
- Frequency of defecation significantly higher than normal (greater than 4 times per day)
- No 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 may be felt by your pet's veterinarian

Associated Risks

Small Bowel Diarrhoea (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 exocrine pancreatic insufficiency (syndrome caused by inadequate production and secretion of digestive enzymes by the pancreas)
- Pythiosis (infection with *Pythium*, a water mould) occurs most often in young, large-breed dogs living in states bordering the Gulf of Mexico.

Large Bowel Diarrhoea (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.
- Pythiosis (infection with *Pythium*, a water mould) occurs most often in young, large-breed dogs living in states bordering the Gulf of Mexico.

How can it be treated?

Treating the underlying cause rarely resolves long-term chronic diarrhoea. Faecal examinations are carried out to identify parasites. They are often negative in whipworm-infested dogs because of intermittent shedding of eggs; because whipworms are a common cause of diarrhoea, deworming with fenbendazole may be performed as a diagnostic aid before pursuing extensive diagnostic tests. If the dog is dehydrated it will require fluid therapy.

For pets with low levels of protein in the blood (known as “hypoproteinemia”) that need fluid therapy consider colloids. “Colloids” are fluids that contain larger molecules that stay within the circulating blood to help maintain circulating blood volume, examples are dextran and hetastarch.

Correct electrolyte (such as sodium, potassium, chloride) and acid–base imbalances. Furthermore, some dogs with inflammatory bowel disease or exocrine pancreatic insufficiency (syndrome caused by inadequate production and secretion of digestive enzymes by the pancreas) have secondary small intestinal bacterial overgrowth (condition in which a high number of bacteria are found in the upper small intestine), which must be treated along with the primary disorder.

Diet; Feeding a low-fat, highly digestible diet for 3–4 weeks may resolve diarrhoea due to dietary intolerance. Feeding a hypoallergenic diet may be beneficial, if food allergy is suspected.

Surgery; Biopsy of the stomach, small intestine, and/or large intestine or exploratory surgery of the abdomen and surgical biopsy.

What medications are available?

Medications will vary depending on underlying cause. In dogs with signs of inflammation of the colon (known as “colitis”), a therapeutic trial with *fenbendazole* to rule out whipworms may be performed, before pursuing extensive diagnostic testing.

Possible Complications

- Dehydration
- Poor body condition
- Fluid build-up in the abdomen (ascites), under the skin (subcutaneous oedema) 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).

Prognosis and Follow up Care

Some causes of long-term (chronic) diarrhoea result in actual changes to the lining of the intestines that may require many months to resolve or that may not resolve. Resolution of diarrhea usually is gradual after treatment; if it does not resolve with treatment, consider re-evaluating the diagnosis.

It is recommended that faecal volume and character, frequency of defecation, and body weight are checked regularly to monitor the dog’s progress and reaction to treatment.

In dogs with protein-losing enteropathy (condition in which proteins are lost from the body through the intestines)—serum proteins and clinical signs (fluid build-up in the abdomen [known as “ascites”], under the skin [known as “subcutaneous oedema”], in the space between the lungs and chest wall [known as “pleural effusion”]).

Complete resolution of signs is not always possible, despite a correct diagnosis and proper treatment.