Large bowel diarrhea is common, and the acute form is often self-limiting. There are numerous potential causes of acute colitis, but diet, infectious agents (e.g., bacteria or their toxins), viral agents, and parasites are the most important and frequently encountered. In dogs with colitis that is not self-limiting, nonspecific or symptomatic therapy is often sufficient to achieve complete resolution. Dietary therapy is effective for most dogs; in particular, diets high in insoluble or mixed fiber can help improve motility, bind colonic irritants, and improve colonic health by providing short-chain fatty acids, which provide nutrition to the colon epithelial cells. For dogs that do not respond to dietary therapy alone, a course of antibiotics (for treatment of clostridial enterocolitis) or anthelmintics (for whipworms) is indicated. Antibiotic use is generally only justified based on positive identification of clostridial infection or rectal cytology showing increased numbers of polymorphonuclear neutrophils.

Chronic colitis is more often associated with inflammatory bowel disease (IBD) or one of its variants, neoplasia, fungal diseases, or extra-gastrointestinal causes of colitis, such as Addison’s disease or chronic metabolic diseases (liver or renal failure, pancreatitis). Dogs with chronic colitis should undergo a complete diagnostic evaluation, which may include blood work, radiography, abdominal ultrasonography, more advanced fecal analysis (ELISA, toxin assays, cytology, or culture), and colonoscopy for biopsies. Many dogs with chronic colonic diseases not related to cancer will respond to therapy but may require long-term treatment to control recurrences.

**DIAGNOSTIC CRITERIA**

**Historical Information**

**Gender Predisposition**
- None reported for acute or chronic colitis.

**Age Predisposition**
- Acute colitis can occur in dogs and cats of any age but is predominant in younger patients.
- Chronic colitis due to IBD or cancer tends to occur in middle-aged to older adults.

**Breed Predisposition**
- No predisposition to lymphoplasmacytic colitis has been reported in dogs, but histocytic ulcerative colitis is more commonly reported in boxers.
- Siamese cats may be predisposed to colonic IBD.

**Owner Observations**
Owners most frequently notice that their pet has one or more of the following signs but otherwise appears healthy:
- Straining to defecate.
- Increased urgency or frequency of defecation.
- Presence of blood or mucus on the surface of the stool.

**Other Historical Considerations/Predispositions**
- Dogs in urban environments are more likely to be exposed to whipworms, a major cause of acute colitis.
- Long-haired cats that pass large amounts of hair in their feces are prone to development of hair-induced colitis.
- Dogs that are boarded may be predisposed to development of acute nosocomial (presumed clostridial) colitis.

**Physical Examination Findings**
- Most dogs and cats with colitis have no abnormal physical examination findings.
- Rectal examination is likely to reveal fresh blood or mucus in the stool. The irritated bowel wall can make the anorectum quite sensitive, as can significant irritation due to straining.
- Dogs and cats with chronic colitis, especially those with cancer or severe IBD, may have weight loss, anorexia, or other signs of ill health. Systemic signs of weight loss and alterations in appetite may also suggest concurrent small intestinal involvement (e.g., enterocolitis).

**Laboratory Findings**
- Dogs and cats with colitis may have completely normal hematology and serum chemistry test results because colonic diseases are not frequently associated with large fluid or electrolyte losses, loss of blood is minimal, and inflammation is not reflected in systemic blood tests.
- Fecal examination is an extremely important part of evaluation of any animal with colitis; flotation for whipworms, *Giardia*, and other parasitic pathogens is especially pertinent.
Other fecal tests that may be beneficial include fecal cytology, fecal ELISA (for *Giardia* antigen), or fecal cultures (for *Yersinia* and other pathogens causing colitis).

- Fecal toxin assays may be used to assist in the diagnosis of clostridial colitis; however, the presence of a positive assay is not definitive proof that clostridial toxins are the cause of the diarrhea.
- Cytology of rectal scrapings may reveal organisms (*Giardia* oocysts, *Histoplasma*) or lymphocytes (lymphoma), thereby providing a diagnosis.

Other Diagnostic Findings

- **Plain radiography** is important to determine the presence of obstructive causes of colitis, such as neoplasia or foreign objects (e.g., rocks, stones).
- **Contrast radiography**, including barium enemas or pneumocolon procedures, may be helpful in identifying masses in the wall of the colon or rectum not visible via plain radiography or ultrasonography and not palpable by digital rectal examination.
- **Ultrasoundography** may be useful for evaluation of masses, thickened segments of the bowel wall, and lymphadenopathy, but findings are often normal. Cytologic or histopathologic (preferred) samples are still required for definitive diagnosis.
- **Endoscopy** (both flexible and rigid) is the most useful method for obtaining a definitive diagnosis, as it allows both direct visualization as well as a means of obtaining mucosal tissue for biopsy. (Exfoliative gastrointestinal tract cytology is a useful adjunct to mucosal biopsy.)
  - **Flexible endoscopy** allows visualization and biopsy of the entire colon, ileocolic junction, and in some animals, the distal ileum. If the proper equipment is available, the endoscope can also be used to remove small masses and polyps.
  - **Rigid endoscopy** using a rigid colonoscope allows visualization of the distal colon and rectum and is useful for obtaining biopsies using larger, rigid biopsy forceps.
- **Surgical biopsy** may be needed if endoscopic biopsy is nondiagnostic or if masses, strictures, or obstructive lesions must be resected. The procedure is difficult, and the risk of bowel leakage must be carefully considered before attempting surgical biopsy.

Summary of Diagnostic Criteria

- Rectal and fecal examinations are very important initial tests needed to rule out parasitic and enteropathogenic bacterial causes of colitis.
- **Endoscopy** is the most important diagnostic tool for definitive diagnosis of chronic colitis in both dogs and cats.
- Laboratory tests and imaging modalities (radiography and ultrasonography) are best used to rule out causes of large bowel diarrhea not due to colonic disease or to assess the extent of lesions affecting extra-gastrointestinal tissues.

Diagnostic Differentials

- Acute colitis is most often caused by parasites (whipworms), bacterial infections or their toxins (clostridial colitis), or dietary disturbances.
- Metabolic or endocrine diseases (pancreatitis, Addison’s disease, hyperthyroidism in cats) may occasionally be associated with large bowel diarrhea on presentation.
- Major causes of chronic colitis include parasites (*Giardia*), infections (bacterial, viral, or fungal enterocolitis), inflammation (IBD), or neoplasia (lymphoma or adenocarcinoma); chronic colitis may also be idiopathic (irritable bowel syndrome).

TREATMENT RECOMMENDATIONS

Initial Treatment

- All animals presenting with acute large bowel diarrhea should be dewormed:
  - Fenbendazole: 50 mg/kg PO q24h for 3–5 days.
  - Praziquantel–pyrantel pamoate–febantel tablets (Drontal Plus [Bayer Animal Health]): For use in dogs only; dose based on dog’s size.
- Antibiotics are indicated only for patients with clostridial infections or bacterial enterocolitis:
  - Ampicillin: 10–20 mg/kg PO q8h.
  - Metronidazole: 5–15 mg/kg PO q12h.
  - Clindamycin: 5 mg/kg PO q12h.
- Dietary fiber therapy: A diet with increased amounts of fiber, especially mixed (i.e., soluble and insoluble) fibers, should be fed if other dietary restrictions are not present.
• Motility modifiers (loxapine or diphenoxylate, 0.1–0.2 mg/kg q12h PO) are indicated for irritable bowel or acute nonspecific colitis. These drugs should not be used in cats or in cases of suspected invasive bacterial infections (e.g. salmonellosis). $ 

• In animals with IBD, therapy with one of the following is indicated in addition to dietary therapy and antibiotics:
  — Prednisone: 1–2 mg/kg PO q12h. This dose is often used for 7 to 14 days until the clinical signs resolve, decreased to q24h for another 1 to 2 weeks, and then decreased to q48h and discontinued. $ 
  — Nonsteroidal antiinflammatory therapy with mesalamine (5 mg/kg PO q12h) or olsalazine (5 mg/kg PO q12h). $ 

• If histoplasmosis is identified, therapy with itraconazole (dogs, 5–10 mg/kg q12h; cats, 10 mg/kg q24h) is initiated. This therapy must be continued for 6 months or at least 1 month past resolution of clinical signs. $$$ 

• Pythiosis is not generally responsive to oral antifungal therapy alone. Surgical resection of the affected bowel is the most effective means of controlling the infection; in the colon, however, this is difficult and may result in peritonitis due to poor healing of affected tissue. $$$ 

**Alternative/Optional Treatments/Therapy**

• For dogs with severe histiocytic ulcerative colitis, enrofloxacin (10 mg/kg PO q24h) is indicated in addition to metronidazole, clindamycin, and prednisone therapy. 

• Specific cancer requires specific pharmacologic therapy. 

**Supportive Treatment**

Fluid therapy is rarely indicated for dogs or cats with large bowel diarrhea, but any animal with chronic, severe ulcerative or infiltrative colitis may become dehydrated and require fluid support. 

**Patient Monitoring**

Improvement in fecal character, decrease in frequency and urgency, and disappearance of blood or mucus in feces are the most important criteria in determining therapeutic success. 

**Milestones/Recovery Time Frames**

• Acute colitis should respond rapidly to appropriate antibiotic, dietary, or anthelmintic therapy. 

• The response to therapy for chronic large bowel diarrhea depends on the underlying cause (e.g. neoplasia, inflammatory bowel); in some cases, the signs may persist for months or wax and wane. 

**PROGNOSIS**

**Favorable Criteria**

• Rapid response (improvement in fecal character) to appropriate therapy. 

• Lack of evidence of neoplasia or fungal disease in biopsies. 

**Unfavorable Criteria**

• Persistent clinical signs. 

• Inability to pass feces without dyschezia. 

• Persistent or recurrent constipation due to colonic or rectal luminal obstruction or narrowing or abnormal colonic motility. 

**RECOMMENDED READING**


