

# Diarrhea in Ferrets: Causes, Diagnosis and Treatment

*Drs. Foster & Smith Educational Staff*

Diarrhea is a very common disorder among ferrets. The normal stool of ferrets is generally slightly soft and formed. Diarrhea occurs when the stool becomes more liquid in form and/or there is an abnormal frequency of defecation. Many gastrointestinal (GI) diseases cause similar clinical signs including loose stools, malabsorption (stools have the appearance of bird seeds), loss of appetite, and weight loss.

Causes of diarrhea in ferrets

Diarrhea in ferrets may be associated with a number of diseases including:

**Rotavirus enteritis:** Rotavirus enteritis is a viral infection that usually occurs in ferret kits 2-6 weeks of age. It is sometimes referred to as "ferret-kit disease" or "green-slime disease" since the kits develop a yellowish to greenish liquid diarrhea with mucus. Often the mother will discontinue grooming the affected kit(s). There is currently no accurate serological test for rotavirus infection. This infection is often fatal, but some kits will survive if given intensive supportive care. Antibiotics are commonly given since secondary bacterial infections often occur. Supplemental feeding is often required. There is no vaccine against this disease.



**Ferret corona virus infection (epizootic catarrhal enteritis):** [Ferret coronavirus](#) infections (epizootic catarrhal enteritis) are easily transmitted, and may be associated with outbreaks in facilities where large numbers of ferrets are housed together. Young kits may carry and spread the virus for months without showing any signs. The diarrhea is usually green, with mucus, and may have a "birdseed-like" consistency. In some animals the liver may be affected, which worsens the prognosis. Treatment is generally supportive.

**Eosinophilic gastroenteritis:** Eosinophilic gastroenteritis is a disease most commonly seen in young male ferrets. The cause of this disease is unknown, however it results in inflammation of the abdominal organs, and sometimes organs in the chest as well. In addition to diarrhea and weight loss, some ferrets will have vomiting episodes and difficult breeding. It is diagnosed through biopsy of the affected intestine. Eosinophilic gastroenteritis is treated with long-term doses of prednisone.

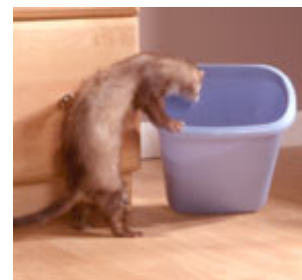
**Proliferative colitis:** [Proliferative colitis](#) is associated with infections with the bacteria *Lawsonia intracellularis*. This is the same bacteria that causes "wet tail" in hamsters. Proliferative colitis is more commonly seen in young ferrets, 4-6 months of age. Ferrets with this disease often have frequent painful defecation with straining. Some ferrets with proliferative colitis develop a [rectal prolapse](#) from the continual straining. Only small amounts of feces may be passed, along with large amounts of mucus and blood. This disease, also, is diagnosed through intestinal biopsy. It is usually treated with chloramphenicol, sometimes in combination with [metronidazole](#).

***Helicobacter mustelae* infection:** [Helicobacter mustelae infection](#) is a bacterial infection that may cause black, tarry stools. It is more commonly seen in ferrets 12-20 weeks of age. This is a bacteria that is present in the GI tract of almost every ferret, but generally only causes disease when other stressors such as rapid growth, dietary change, or other diseases are present. It can also result in anemia due to blood loss into the intestine. The diagnosis of *Helicobacter mustelae* infection in ferrets is made through the culture of the organism from stomach contents. *Helicobacter mustelae* infection is usually treated for 3 weeks with [amoxicillin](#), [bismuth subsalicylate](#), metronidazole, and [cimetidine](#).

**Gastric ulcers:** Gastric ulcers can occur in ferrets and may be complicated by *Helicobacter mustelae* infection. Sometimes significant bleeding can occur, which results in stools that may appear black and tarry. Gastric ulcers can cause abdominal pain, which may cause some ferrets to grind their teeth.

***Campylobacter jejuni* infection:** [Campylobacter jejuni infection](#) can occur in ferrets and is most commonly associated with the feeding of contaminated meat products, particularly poultry, or unpasteurized milk. In addition to diarrhea, ferrets may show straining to defecate. *Campylobacter jejuni* infection is diagnosed through special tests of the stomach contents. The infection is usually treated with [erythromycin](#). The bacteria can spread between ferrets and infect people, especially those with suppressed immune systems.

**Gastrointestinal foreign bodies:** Ferrets are rather notorious for [ingesting foreign objects](#), especially those made of rubber. In some instances they will develop diarrhea. Other signs include abdominal pain, loss of appetite, lethargy, weakness, a reluctance to move, vomiting, and drooling (a sign of nausea). Since most foreign bodies are of soft density (rubber or cloth), they are often not apparent on a radiograph (x-ray). The diagnosis many times is made through exploratory surgery.



**Aleutian disease:** [Aleutian disease](#) is relatively rare in ferrets. It is caused by a parvovirus, but not the same strains as those that affect dogs, cats, or humans. It is a chronic wasting disease that is most often associated with large numbers of ferrets being grouped together, as in a shelter. Ferrets with Aleutian disease may have dark stools and also develop paralysis, generalized weakness, and weight loss. It is usually diagnosed through special blood tests. There is not a specific treatment for Aleutian disease. Fluid therapy, tube or

syringe feeding, and administering anti-inflammatory drugs may be helpful.

**Salmonellosis:** Infections with *Salmonella* are rare in ferrets, and when they do occur are usually associated with the feeding of raw or undercooked meat, poultry, or by-products. Ferrets with salmonellosis often have bloody diarrhea as well as a fever and weakness. They may develop an anemia, as well. The treatment includes supportive care as well as antibiotics, often [trimethoprim-sulfa](#).

**Gastrointestinal parasites:** Unlike dogs and cats, intestinal parasites are relatively rare in ferrets. They can, however, become infected with protozoal parasites including [Giardia lamblia](#), [Cryptosporidium parvum](#), and [coccidia](#). Ferrets are not susceptible to the same coccidian species that infect dogs and cats. The severity of signs can vary. Some infected ferrets may show no signs whereas severe infestations may cause diarrhea, lethargy, dehydration, and rectal prolapse if the straining becomes severe. The diagnosis of gastrointestinal parasites is made through a fecal examination. It is often necessary to examine multiple samples since the parasites are not always present in sufficient quantities to be detected. Coccidia infections are usually treated with [sulfadimethoxine](#), whereas *Giardia* is treated with metronidazole. There is no treatment for *Cryptosporidium parvum*, which can infect persons who are immunocompromised.

**Lymphosarcoma:** [Lymphosarcoma](#) is a common cancer among ferrets that can affect multiple organs. When it occurs in the intestinal tract, it may cause diarrhea. Ferrets with intestinal lymphosarcoma have a poor prognosis since the disease generally progresses very rapidly.

**Nutritional changes:** Sudden changes in diet, or feeding foods that are not a normal part of a ferret's diet can cause diarrhea. The resulting mild diarrhea is common in ferrets because they have a short, inefficient intestinal tract that is very sensitive to changes in diet.

**Inflammatory bowel disease:** Inflammatory bowel disease (IBD) has been diagnosed in ferrets and may be the result of a number of factors. The diagnosis is made through a biopsy of the intestine. Treatment may include dietary changes and medications for specific infections.

#### Diagnosis

To diagnose the cause of diarrhea in ferrets, the history is very important including the age of the animal, contact with other ferrets, the presence of other stressors, nutritional history, and the extent and duration of symptoms. In many cases baseline tests are performed including a [complete blood count \(CBC\)](#), [serum chemistry profile](#), and fecal examination. Tests for Aleutian disease, [radiographs](#), and fecal cultures may be indicated. Depending upon the signs, a biopsy of the affected portion of the gastrointestinal tract may need to be performed and stomach contents tested.

#### Treatment

Treatment will depend on the cause of the diarrhea and its severity. Ferrets that are sick and severely dehydrated may need to be hospitalized. Fluids may be given along with nutritional support. Once a specific diagnosis is made, the appropriate treatment can be given.

