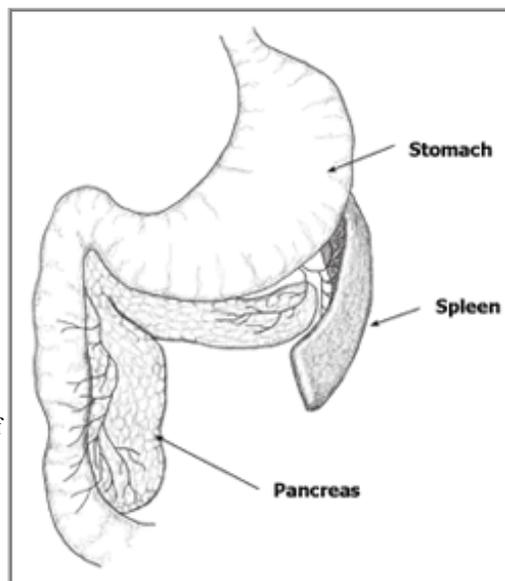


Pancreatitis (Inflammation) in Dogs

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The [pancreas](#) is a V-shaped organ located behind the stomach and the first section of the small intestine, the duodenum. It has two main functions: it aids in metabolism of sugar in the body through the production of insulin, and is necessary for the digestion of nutrients by producing pancreatic enzymes. These enzymes help the body promote the digestion and absorption of nutrients from food. Acute pancreatitis is a sudden onset of pancreatic inflammation. Chronic pancreatitis can also occur.



What are the causes of pancreatitis?

Multiple factors can contribute to the development of pancreatitis in dogs:

- Certain medications, especially potassium bromide, as well as some anti-cancer drugs and some antibiotics
- Metabolic disorders including hyperlipidemia (high amounts of lipid in the blood) and hypercalcemia (high amounts of calcium in the blood)
- Hormonal diseases such as [Cushings disease \(hyperadrenocorticism\)](#), [hypothyroidism](#), and diabetes mellitus
- Obese and overweight dogs appear to be more at risk
- Genetics may play a role, with Schnauzers and Yorkshire terriers appearing to be more prone to pancreatitis
- Nutrition: Dogs with diets high in fat, dogs who have recently gotten into the trash or have been fed table scraps, or dogs who 'steal' or are fed greasy 'people food' seem to have a higher incidence of the disease
- Abdominal surgery, trauma to the abdomen (e.g., hit by a car), shock, or other conditions that could affect blood flow to the pancreas
- Previous pancreatitis

What are the symptoms of pancreatitis?

Symptoms of acute pancreatitis may range from mild to very severe. The symptoms are similar to those of other diseases and may include a very painful abdomen, abdominal distention, lack of appetite, depression, dehydration, a 'hunched up' posture, vomiting, and perhaps diarrhea. Fever often accompanies these symptoms.

Animals with more severe disease can develop heart arrhythmias, sepsis (body-wide infection), difficulty breathing, and a life-threatening condition called disseminated intravascular coagulation (DIC), which results in multiple hemorrhages. If the inflammation is severe, organs surrounding the pancreas could be 'autodigested' by pancreatic enzymes released from the damaged pancreas and become permanently damaged.

Dogs with chronic pancreatitis may show signs similar to those in acute pancreatitis, but they are often milder, and severe complications are less likely.

How is pancreatitis diagnosed?

To diagnose pancreatitis, other causes of the symptoms must be ruled out. A complete history is taken and a thorough physical exam, a [complete blood count](#), [chemistry panel](#) and [urinalysis](#) are performed. Blood levels of two pancreatic enzymes, amylase and lipase, may be obtained. The cPLI (canine pancreatic lipase immunoreactivity) test is another diagnostic tool. In addition, radiography (x-rays) and ultrasound can also help in making the diagnosis. A biopsy can result in a conclusive diagnosis, but is not commonly performed.

How is pancreatitis treated?

The goals of treatment are to:

- Correct dehydration
- Provide pain relief
- Control vomiting
- Provide nutritional support
- Prevent complications

Dehydration and electrolyte imbalances are common in dogs with acute pancreatitis, so supplemental fluids are given either by the subcutaneous or intravenous route; depending upon the severity of the condition.

Dogs who are experiencing pain can be treated with pain relievers such as meperidine or butorphanol.

Medications are often given to decrease the amount of vomiting. If vomiting is severe, food, water, and oral medications are withheld for at least 24 hours. Depending upon the dog's response, food intake can be started again after a day or more. The dog is generally fed small meals of a bland, easily digestible, high-carbohydrate, low-fat food. In some cases, it may be necessary to use tube feeding to provide proper nutrition.

If the pancreatitis was caused by a medication, the medication should be stopped. If it was caused by a toxin, infection, or other condition, the appropriate therapy for the underlying condition should be started.

In rare instances where there are intestinal complications or the development of a pancreatic abscess, surgery may be necessary.

What is the prognosis for dogs with pancreatitis?

Pancreatitis can be a very unpredictable disease. In most cases, if the pancreatitis was mild and the pet only had one episode, chances of recovery are good and keeping the dog on a low-fat diet may be all that is necessary to prevent recurrence or complications. In other cases, what appears to be a mild case may progress, or may be treated successfully only to have recurrences, sometimes severe.

Some animals develop chronic pancreatitis, which can lead to diabetes mellitus and/or [pancreatic insufficiency](#), also called 'maldigestion syndrome.' In pancreatic insufficiency, the nutrients in food are passed out in the feces undigested. A dog with this disease often has a ravenous appetite, diarrhea, and weight loss. Even though he is eating, he could literally starve to death. Treatment for pancreatic insufficiency is lifelong and expensive, but is possible. The dog's digestive enzymes are replaced through a product processed from pancreases of hogs and cattle which contain large quantities of the digestive enzymes. A change in diet with added nutritional supplements may also be necessary.

Summary

Acute pancreatitis can be a life-threatening condition, and early recognition and treatment can improve chances of recovery. In dogs, fever, lack of appetite, depression and vomiting are the most common signs. Treatment is based on correcting the dehydration and maintaining proper fluid and electrolyte balances, controlling other symptoms and providing nutritional support.