



Pancreatitis

What is the pancreas?

The pancreas is a small, pale pink glandular organ that lives just under the stomach and right beside the first section of the small intestine (called the duodenum). The pancreas has two main functions. The first is to secrete insulin and glucagon, which are required for blood sugar regulation. The second is to make, store, and secrete enzymes essential for digestion of food.

What is pancreatitis?

Pancreatitis is simply inflammation of the pancreas. Normally, digestive enzymes are stored safely in the pancreas until they are needed during mealtime. At that time, the enzymes are released into ducts that empty into the small intestine. Only then do they become activated into potent chemicals that break down food. With pancreatitis, the digestive enzymes are released and activated inside the pancreas. The end result of this is that the pancreas essentially digests itself, causing severe inflammation of that organ as well as adverse effects on many organ systems in the body. Most commonly, the inflammation is confined to the pancreas and nearby liver, but possible serious consequences include: temporary or permanent diabetes mellitus due to failure of blood sugar regulation, disruption of lung surfactants leading to respiratory failure, and disseminated intravascular coagulation (or DIC) in which normal blood clotting and clot dissolving mechanisms break down causing simultaneous abnormal bleeding and clotting of blood throughout the body.

What causes pancreatitis?

Most of the time no cause for pancreatitis is identified. Risk factors in the dog include obesity and recent ingestion of a fatty meal. In cats it has been associated with certain infections and inflammatory bowel disease. In any patient it can be associated with abdominal trauma, certain medications, and concurrent diseases involving hormonal imbalance such as diabetes, hypothyroidism, and hypercalcemia.

What are the signs of pancreatitis?

Classic signs of pancreatitis in the dog are appetite loss, vomiting, diarrhea, painful abdomen, fever, and lethargy. Cats can show any of these signs as well, but the only consistent signs are lethargy and loss of appetite.

How is pancreatitis diagnosed?

Pancreatitis is historically difficult to diagnose, as the above listed signs are seen in many other diseases, but there have been recent improvements in laboratory tests available. For dogs there is an in-house blood test that checks for pancreas-specific lipase (a digestive enzyme) that takes just a few minutes which can confirm the diagnosis. For cats there is a blood test as well, but not one that can be run in-house yet. It must be sent away to a special lab and results may not be available in time to help a sick cat. There are several other tests that will be recommended to help us rule out other causes of vomiting and also to determine the best course of treatment including: complete blood count (CBC) and serum chemistry, abdominal radiographs (X-ray) and/or abdominal ultrasound.

What treatment is needed?

Pancreatitis should be treated as quickly and aggressively as possible. Pancreatitis can be unpredictable and even with intensive treatment some patients die. Most patients are going to require hospitalization, sometimes for several days. The passage of food through the duodenum is a strong stimulus to the pancreas, but we want the pancreas to rest with no stimulation at all. Patients are placed on intravenous (IV) fluids to support hydration, restore blood pressure, and allow administration of electrolytes. No food or water is given for at least 24 hours, often longer. Pancreatitis is a very painful condition; therefore pain management is an important part of treatment. Medication is often given to control nausea, and antibiotics are sometimes given to prevent secondary bacterial infection. Blood tests will usually be rechecked to monitor hydration status, electrolytes, and signs of DIC, to name a few. Some patients require more intensive care or more specialized procedures than our clinic can provide. We will let you know if we think your pet might be better served by a referral facility with 24 hour nursing care available, or you may ask for more information about it at any time. Patients can go home from the hospital when they are able to eat and drink and are no longer vomiting.

What happens when my pet comes home?

In most cases, patients recovering from pancreatitis will have a normal future life expectancy. There is a potential for the pancreas to always have a chronic low-grade smoldering inflammation present, and you may see recurrence of acute pancreatitis. It is essential to minimize this risk in dogs by feeding a low fat diet for the remainder of the pet's life. This will usually mean a prescription diet, and it will always mean the end of high-fat table scraps or dog treats. You will need to get low fat dog treats and the only appropriate people foods are lean, un-processed meats, fruits, and vegetables. Cats do not necessarily need a prescription diet, but if they have co-existing metabolic disease, such as obesity or diabetes, steps need to be taken to correct it.

If the pancreas sustains enough damage your pet may suffer from exocrine pancreatic insufficiency, which is treatable with long term supplementation of digestive enzymes. Permanent or temporary diabetes mellitus may also result, requiring insulin injections and possibly a special diet.

If you have further questions, feel free to contact the clinic at the above telephone number.