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Dog Tips

Canine Pancreatitis Demystified – Is Your Dog at Risk?

Know the silent danger of pancreatitis in dogs, a condition that can range from mild to life-threatening. Explore the role of digestive enzymes and the impact of processed pet foods.

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STORY AT-A-GLANCE

- One of the most common causes of acute pancreatitis in dogs is indiscriminate ingestion of a large quantity of high fat food (often as a result of counter surfing)
- The condition can range from mild to life-threatening, and there are multiple risk factors that increase susceptibility
- Symptoms of pancreatitis include loss of appetite, nausea and vomiting, dehydration, and abdominal pain
- Treatment is primarily supportive and focused on symptom relief
- Digestive enzymes and a nutritionally optimal, species-specific diet can help prevent pancreatitis or a recurrence

There are many causes of canine pancreatitis (inflammation of the pancreas), but one of the most common is the impromptu ingestion of a large quantity of high fat food. (Picture a freshly cooked turkey ready for carving that gets pulled off the stovetop by a resourceful dog while her human's back is turned.)

This episode can result in a case of acute pancreatitis in the turkey thief, and pancreatitis is no laughing matter. In humans, the disease is reportedly fatal in 5% to 15% of cases. In dogs, it's even more dangerous — from 27% to 58% of patients with the disease don't survive it.[1]

An inflamed pancreas can't efficiently perform its critical functions, which include secreting insulin to balance blood sugar levels, and producing digestive enzymes such as amylase, lipase, and protease, which are necessary for nutrient digestion and absorption.

Severe damage to the pancreas can trigger a massive inflammatory reaction known as systemic inflammatory response syndrome (SIRS), characterized by increased capillary permeability, fever, rapid heart rate, a drop in blood pressure, and ultimately, multiple organ failure.

In addition, as the result of a process called autodigestion, dogs can develop severe necrotizing pancreatitis in which entire portions of the organ are completely destroyed.

Pancreatitis Risk Factors

Pancreatitis most often occurs in middle aged or older small breed dogs, especially the Miniature Schnauzer, Cavalier King Charles Spaniel, Cocker Spaniel, Sheltie, Toy Poodle, and the Yorkshire Terrier.

Risk factors include obesity, diabetes, hypothyroidism, **Cushing's disease**, and pre-existing gastrointestinal (GI) disease. In fact, estimates are that about 25% of dogs with acute **diabetes** also have acute pancreatitis.[2] The condition is also more common in dogs who have had recent surgery, especially procedures involving the abdominal organs.

In addition, certain drugs are suspected of triggering acute pancreatitis, including anti-seizure medications such as potassium bromide or phenobarbital, prednisone and other catabolic steroids, and the diuretic Lasix.

As in the example of the turkey-eating dog, dietary indiscretions are also very commonly the culprit in attacks of pancreatitis and typically involve high-fat, cooked foods such as fatty meats, any fried foods, bacon grease, etc.

In my experience, **ultraprocessed pet food** also plays a role in pancreatitis in pets, which I'll discuss shortly.

Symptoms to Watch For

Canine pancreatitis can cause a variety of symptoms that are also seen in many other conditions, and they can range from mild to very severe. A 1999 study showed that in dogs with acute pancreatitis that ultimately proved fatal, the following symptoms were reported:[3]

- Anorexia (91%)
- Abdominal pain (58%)
- Vomiting (90%)
- **Dehydration** (46%)
- Weakness (79%)
- Diarrhea (33%)

When the disease is very severe, inflammation can become systemic, which can cause shock or cardiovascular (circulatory) collapse.

The symptoms veterinarians most commonly see when examining dogs with acute pancreatitis are dehydration, excessive drooling and lip-licking (signs of **nausea**), and abdominal pain. Since these symptoms are present in a wide variety of disorders, a thorough diagnostic workup should be performed, including bloodwork and x-rays or scans.

Historically, veterinarians have diagnosed pancreatitis using a blood test called the PLI (pancreatic lipase immunoreactivity). More recently, Texas A&M University has developed a test for canine pancreatic-specific immunoreactivity called the Spec cPL test. There's also now a cPL test that offers results almost immediately at the vet clinic, without the need to ship the sample to an outside lab.

Treatment Options

There is no procedure or medication that cures pancreatitis, so treatment is supportive and focused on reducing the dog's symptoms. Baseline supportive therapy includes:

- Intravenous (IV) fluids to address dehydration (IV vitamin C can be very helpful in cases of SIRS and necrotizing pancreatitis), hypovolemia (decreased blood volume), and electrolyte imbalances
- The recently approved IV medication Panoquell, which reduces pancreatic inflammation
- Pain management
- Anti-emetics to alleviate nausea and vomiting
- Enteral nutrition (tube feeding)

In most cases of pancreatitis, **antibiotics** are unnecessary and unhelpful. In addition, non-steroidal anti-inflammatory drugs (NSAIDs) and steroid medications like prednisone should be avoided. Pain management is crucial for these patients.

Dogs who develop an acute bout of pancreatitis can have different outcomes. Some recover fully with no further issues. Others recover but go on to develop chronic pancreatitis. And some dogs have recurrences of acute pancreatitis. In dogs with co-existing conditions such as diabetes, successful treatment of pancreatitis depends on successful treatment or management of those other disorders.

Pets should be hospitalized if they aren't eating or drinking on their own, and bloodwork should be repeated until the PLI values are normal. A low fat, low residue, human grade diet should be instituted until the condition has resolved. According to animal model studies, DHA and EPA (omega-3 essential fatty acids) do not exacerbate pancreatitis and actually help **reduce inflammatory markers in these patients**.

The Role of Ultraprocessed Pet Food in Pancreatitis

Veterinarians are seeing increasing numbers of both dogs and cats with pancreatitis, and I'm convinced ultraprocessed pet food plays a bigger role than either the pet food industry or most kibble-only veterinarians are willing to admit, for a variety of reasons.

KetoPet Sanctuary (which completed its mission and is no longer in operation) made some interesting discoveries about dogs fed unadulterated (raw), healthy fat vs. dogs eating cooked (rendered) fat during their data collection. It seems raw fat (even very high fat) diets didn't cause pancreatitis in sanctuary patients (or in my patients), but cooked (oxidized) fat does induce pancreatitis in some patients, even when fed in small amounts.

So the question I think we should be asking is, "Are the highly processed, poor quality fats (heated repeatedly, up to four times during the manufacturing process) used to create pet food contributing to the epidemic of chronic, low-grade pancreatitis occurring worldwide in pets?" I'm certainly suspicious.

Unfortunately, rancid, oxidized heat-damaged "bad fats" have vilified this important group of macronutrients, making many pet parents fear fats, in general. It's important to remember that clean, human-grade sources of unrefined fresh fats provide an excellent source of energy for pets and meet critical fatty acid requirements for immune, skin, brain

and organ health; the key is to provide the correct types of healthy fats in the correct amounts. Cooked fats should be avoided, across the board, especially foods that have been re-heated multiple times (kibble).

In addition, processed pet food is devoid of the natural food-based enzymes that help reduce pancreatic stress, which is why I suspect the pancreas of many pets exists in a state of chronic, low-grade inflammation. Food that doesn't contain natural enzymes stresses the pancreas, which then tries to make up the difference. If it fails to perform adequately, enzyme deficiency and pancreatic stress results. In addition, pets consume the tissue-damaging AGEs produced during the heat-processing of pet foods, which research shows can also be a trigger for pancreatitis.

Dogs (and cats) are designed to get supplemental enzymes from the foods they consume, since their ancestral diet is loaded with living foods that contain abundant enzymes. Enzymes are sensitive to heat, so any heat process reduces the enzymes found in food. In the wild, dogs consume the pancreas of their prey, which is a rich source of supplemental enzymes.

Even if you're a raw feeder, chances are you may not be giving your dog whole ground pancreas, which means that even pets consuming a **nutritionally optimal, species-specific, raw food diet** can be enzyme deficient.

Pancreatitis Prevention Tip: Digestive Enzymes

One of the most important steps you can take to lower your dog's risk of a repeat episode of pancreatitis is to provide a rich source of digestive enzymes, either through feeding pancreatic tissue (which is unappealing to most pet parents, and can be difficult to source) or a supplement containing pancrealipase or panreatin. This will help reduce the stress your pet's pancreas is under to produce enough enzymes to process food.

So if you have a dog who's currently dealing with pancreatitis, has had it in the past, or if you want to take preventive measures to reduce the likelihood he'll develop the condition, adding broad spectrum digestive enzymes to his minimally-processed food and avoiding heat-processed fats at mealtimes is a great way to help reduce pancreatic stress and protect and preserve pancreas function as pets age.

Sources and References

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[1] Topics in Companion Animal Medicine. (27)3:123-132 August 2012

[2] dvm360, May 11, 2018

[3] Journal of the American Veterinary Medical Association. 1999 Jan 1;214(1):46-51