Hello, this is Dr. Karen Becker, and today we’re going to discuss your pet’s gallbladder health.

The gallbladder is a balloon-shaped organ, or structure that sits between the lobes of the liver. Bile that’s made in the liver is stored and concentrated here. Bile is released from the gallbladder and travels down the common bile duct through the pancreas and into the small intestine.

**Functions of Bile in Your Pet’s Body**

There are four main functions that bile has in your pet’s body. The first thing it does is alkalizing your pet’s small intestinal content. Bile has a Ph of 9.5; it’s very alkaline. The reason that bile has to be so alkaline is one of its primary goals, which is to neutralize the really strong acid that’s released from your pet’s stomach with the food into the small intestine.

Dogs are scavenging carnivores; cats are obligate carnivores. This means their bodies are able to consume raw, living, potentially disease-ridden meat. Cats catch barn mice, which can be full of whole hosts of different viruses, bacteria, and even fungi.

The really strong stomach acid that dogs and cats produce is designed to kill off many of those pathogenic bacteria and viruses that enter your pet’s body, because they’re not able to survive the strong stomach acid.

Stomach acid is a blessing. However, when it moves to the small intestine, it’s highly irritating. So bile – with its PH of 9.5 – neutralizes that potentially toxic stomach acid in the small intestine.

The second thing that bile does is being necessary for the emulsification of fats and oils. Emulsification is the process of turning fats and oils into water-soluble compounds that can be absorbed. Bile is critical for the absorption of fat.

The third function of bile is stimulating peristalsis, the act of moving food down the small intestine to be able to effectively process and absorb it.

The fourth thing that bile does is perform its immune function. Over 50% of your pet’s immune system is located in its gastrointestinal tract. Your pet has hundreds of lymph nodes along the small and large intestines, and they’re called Peyer’s patches. Bile has a strong
immunoregulatory function in your pet’s gastrointestinal tract, which means it balances your pet’s GI system. It prevents an overreaction. If you think about dogs and cats and everything that they eat, they eat a lot of foreign antigenic, allergy-stimulating material. Bile does a really good job of quieting down and balancing the immune system overreaction to some of these really noxious antigens.

Bile also has antibiotic and antifungal properties. Bile by nature, is germicidal. It kills fungus, bacteria, yeast, and even viruses.

**Factors That Affect Bile Flow and Production**

Many factors can affect bile flow in your pet. When normal bile flow slows down, it’s called bile sludging. This means that the bile, instead of being fluid, becomes too thick. If bile sludging occurs for a long-enough period of time, your pets can end up with gall stones. Unfortunately, gall stones are very common in veterinary medicine. We don’t tend to address them until the end stage when, of course, the gall stone has already occurred.

We need to talk about some of the reasons why there is abnormal bile production in pets. The first reason is nutritional deficiency. If your dog or cat is deficient in phosphatidyl choline, glycine, or taurine, you can end up with a bile sludging problem in your pet.

Environmental toxins can also cause bile sludging. Not just flea and tick prevention, but also dewormers, vaccines, air, water chemicals, toxins that are in your pet’s food, aflatoxins and microtoxins that are in processed foods all can affect normal bile flow from your pet’s gallbladder.

**Effects of Bile Deficiency**

What this results in are three major issues. Bile deficiency in the intestine is what’s most common. Ultimately, what happens is that your pet has signs of indigestion. Your pet has acid reflux and ulcers, because the strong hydrochloric acid is allowed into the small intestine.

Without bile to neutralize this, your pet can have small intestinal ulcers, which cause bleeding, GI upset, anemia, and some conditions.

If you have bile deficiency in your pet, peristalsis does not happen, and your pet can become constipated. What happens through constipation is that normal toxins aren’t released through normal bowel movement.

You can see a purging episode when your dog or cat is not passing feces for several days, followed by an explosive bout of diarrhea and then several more days of constipation. That could be a symptom of bile deficiency happening in your dogs and cats.
Autoimmune reactions within the gastrointestinal tract, as well as small intestinal bacterial overgrowth and symptoms of inflammatory bowel disease, have all been linked to bile insufficiency in dogs and cats.

The second thing that can happen is bile backwash, which means that the gallbladder becomes backed up with bile. This, in turn, backs up the liver and creates the condition called cholangiohepatitis, the stagnation of the gallbladder and liver secondary to the bile not flowing out of the gallbladder effectively.

The third thing that can happen is bile backwash into the pancreas. As I mentioned previously, the common bile duct passes through the pancreas before it enters the small intestine. If there is backwash of bile into the pancreas, pancreatitis -- inflammation of the pancreas -- can occur. Secondary scarring can occur in your pet’s pancreas.

When pancreas function is not up to par, your pets can ultimately end up with type 2 diabetes, because there’s simply not enough pancreatic tissue left to produce adequate amounts of insulin.

If your pet has had his or her gallbladder removed, is suffering from gallbladder problems, has recurrent gastrointestinal problems, vomiting, diarrhea, bile loss through recurrent vomiting, or intermittent soft stool followed by intermittent bouts of constipation, your pet could be dealing with bile insufficiency.

I would encourage you to contact your integrative veterinarian to not only make a diagnosis, but to be able to put together an integrative protocol to effectively address gallbladder stagnation before you have major problems and require surgery.