



## Leptospirosis

Leptospirosis, often shortened to lepto, is a bacterial infection that infects humans and animals. The bacteria that causes lepto has several different subtypes. Each of these subtypes can cause varying degrees of liver and kidney disease. This part of Illinois is in a “lepto hotspot”.



Lepto is most commonly spread through contaminated urine. It can survive in water such as streams or puddles or in dirt. It can also be spread through bite wounds or ingestion of infected tissue.

Wildlife such as raccoons tend to be carriers of the disease. As they wander through your neighborhood, they shed the bacteria and put you and your pet at risk.

### Signs

Signs of leptospirosis include fever, decreased appetite, lack of energy, shivering, muscle tenderness, and vomiting. As the disease worsens, your pet will show signs of kidney failure such as increased drinking and urination.

As the liver starts to fail, the skin, eyes, and gums turn yellow. Often pets go into shock.



This dog has severe jaundice (yellow skin and gums) due to liver failure.

### Diagnosis

There are many things that can cause liver and kidney failure thus making diagnosis of lepto difficult. There is no good test to identify the bacteria.

The blood can be tested to determine if the pet was exposed to the bacteria. This testing can take several days to get results. It may also require additional testing a couple weeks later. The test may be inconclusive if the dog was vaccinated or if it is early in the disease.

### Treatment

The goal of treatment is to treat the bacterial infection while decreasing or preventing kidney failure. This requires hospitalization with intravenous (IV) fluids and IV antibiotics. The kidneys normally remove waste products from the body so the fluids help flush the kidneys and prevent toxic build up of waste material in the body.



The antibiotics are important to kill the bacteria in the blood stream. Later, an oral antibiotic is given to kill the bacteria in the tissue to prevent the pet from shedding the disease.

### ***Other considerations***

Since humans are at risk for contracting lepto, an infected pet will be placed under quarantine. Most pets need to be treated for several days or even weeks. The survival rate for leptospirosis is 75-80% with aggressive treatment.

Commonly, pets that survive have kidney and liver damage that must be managed for the rest of their lives. Denamarin is an herbal nutritional supplement that helps support the liver. Other supplements, such as probiotics and fish oil, help support kidney function. Both conditions can also be treated with prescription diets. A pet with severely affected kidneys may need fluid administration under their skin (subcutaneous fluids) on a regular basis.

To protect your pet and yourself against lepto, it is strongly recommended to keep your pet vaccinated. The current lepto vaccination is available for dogs and provides protection for up to 1 year against several subtypes. Unfortunately, the protection has not been shown to last for longer than 1 year, even in pets that have had the disease. Therefore, it is important to keep your dogs up to date on their vaccines. Since cats are rarely infected, there is no lepto vaccine for cats at this time.

Canine Leptospirosis "Hot Spots" in the Continental U.S.

