



### ABOUT THE DISEASE

*Leptospirosis* is a bacterial disease caused by one of the many bacterial strains in the *Leptospira* family which inhabit both water and soil sources. The most common source is standing or slow-moving water which has been contaminated with infected urine.

These bacteria can penetrate intact or broken skin, as well as the mucous membrane of the mouth. Patients are also at risk if they consume infected water or infected carcasses. Bite wounds have been reported to transmit the organism, as well.

It is possible for canine patients to be exposed and never develop clinical signs. There is concern because these patients may continue to shed the organism in their urine. If the bacteria causes disease in a canine patient, *leptospirosis* can cause kidney failure, liver failure, or both in canine patients.

Clinical signs will vary based upon the strain exposed and the patient's immune system. Some symptoms include:

- Fever
- Muscle tenderness, reluctance to move
- Increased thirst
- Increased urination frequency & volume changes
- Vomiting, diarrhea, loss of appetite, lethargy
- Jaundice/icterus (yellowing of the skin and mucous membranes)
- Sometimes bleeding disorders

While many strains exist, canine patients are routinely vaccinated against four common types of *leptospirosis*.

There is a low potential that *leptospirosis* is transmissible (zoonotic) to humans. Most often this organism causes flu-like symptoms in humans. Although some more serious signs may occur in immunocompromised or pregnant humans. Contact your physician if you have any questions regarding your own health and safety.

### OBTAINING A DIAGNOSIS

Most all veterinary clinics have the ability to test for *leptospirosis* with simple in-house testing. However, it may take up to one week for patients to start to develop antibodies in an acute infection.

In cases where it is suspected that the patient has not yet had time to generate antibodies, and therefore show a false-negative on in-house testing, there is a specific reference laboratory test available for *leptospirosis*. This test utilizes PCR technology to specifically look for DNA from the organism.

Routine laboratory tests such as a complete blood count, chemistry profile, and urinalysis may show dehydration, kidney failure, and liver disease.

### TREATMENT

Treatment is often dictated by the symptoms of illness caused by the *leptospirosis*.

In mild cases patients are often treated with one or two antibiotics, and show improvement and recovery.

In more severe cases patients may require intensive-care hospitalization for dehydration, kidney failure, acute liver inflammation, or any combination of these problems.

### TIPS FOR SUCCESS

- Prevent contact with infected patient's urine or bodily secretions.
- Be aware that standing water or the wetlands are the most common sites of exposure.
- Vaccinate your canine patient annually against *leptospirosis*.