

## LEPTOSPIROSIS

### Frequently Asked Questions

#### ***What is Leptospirosis?***

Leptospirosis is a disease caused by spiral-shaped *Leptospira* bacteria (leptospire). It occurs worldwide.

#### ***Who gets Leptospirosis?***

Leptospirosis affects humans, wild animals, and domestic animals. Rodents are one of the primary reservoirs for *Leptospira*. Of domestic animals, it is most commonly diagnosed in cattle, pigs, and dogs. Leptospirosis in cats is rare. Human disease caused by *Leptospira* spp. can be an occupational hazard for veterinarians, those working in animal husbandry or meat processing, and military troops. In recreational settings, leptospirosis is a hazard for campers, hikers, hunters, competitive swimmers or adventure racers, and travelers to tropical countries (e.g., ecotourism). It has been associated with swimming, wading, and whitewater rafting in contaminated lakes and rivers.

#### ***How is Leptospirosis spread?***

Leptospirosis is spread largely through exposure to urine of infected animals or contaminated water or soil. Leptospire that get into the water or soil can survive for weeks to months. Leptospire enter the body through mucous membranes of the eyes, nose, or mouth, or through broken skin. Ingesting contaminated water may also cause infection. Infected wild and domestic animals may continue to excrete the bacteria into the environment continuously or occasionally for months to years.

#### ***What are the symptoms of Leptospirosis?***

Signs of leptospirosis in animals are varied and nonspecific. Common clinical signs of leptospirosis in dogs include fever, vomiting, abdominal pain, diarrhea, refusal to eat, severe weakness, depression, stiffness, muscle pain, or inability to have puppies. Generally, younger animals are more seriously affected than older animals.

Many people never show signs of infection. Illness associated with leptospirosis may occur in two phases. The first phase often produces flu-like symptoms (e.g., fever, headache, chills, nausea). This phase may result in complete recovery or may progress to a second phase. If the



second phase occurs, more severe symptoms are observed, including kidney or liver failure or meningitis. The second phase of the disease can potentially be life threatening.

***How soon do symptoms occur?***

The incubation period (time between exposure to the bacteria and onset of illness) is 2 days to 4 weeks. Generally, illness begins suddenly with fever and other symptoms within 7 to 10 days. The illness can last from a few days to three weeks or possibly longer. Recovery may take several months without treatment.

***When and for how long is a person able to spread this infection?***

Leptospirosis is not spread person-to-person.

***How is Leptospirosis diagnosed?***

The disease is diagnosed using specific blood or urine tests available through laboratories.

***Does past infection with Leptospirosis make a person immune?***

A past infection with Leptospirosis may provide immunity for the particular serovar (type) that caused the previous infection. However, there are over 200 serovars of *Leptospira* and there does not appear to be cross-immunity between them.

***What is the treatment for Leptospirosis?***

Leptospirosis should be treated early in the infection with antibiotics (e.g., doxycycline or penicillin). People with more severe symptoms may require intravenous antibiotics. People with symptoms suggestive of leptospirosis should contact their health care provider.

***What can be done to prevent the spread of Leptospirosis?***

- Control rodent populations.
- In case of rodent infestation, utilize the following precautions when cleaning the area once the rodents are eradicated:
  - ✓ Wear protective clothing such as gloves, washable boots, mask, and eye protection, especially if aerosolization of wastes is anticipated.
  - ✓ Air out enclosed areas at least 30 minutes prior to cleaning.



- ✓ Thoroughly wet the area to be cleaned with 10 percent household bleach solution (3 tablespoons of bleach per quart of water).
- ✓ When cleaning is complete, disinfect the area with 10 percent bleach and allow it to dry before reentering.
- ✓ **Before removing gloves**, wash hands with 10 percent bleach solution followed by soap and water.
- ✓ Thoroughly wash hands with soap and water once gloves have been removed.
- Avoid swimming or wading in potentially contaminated water (e.g., heavily impacted water bodies, especially after significant rainfall).
- Vaccinate farm and pet animals. While there are vaccinations available for leptospirosis in farm and pet animals, there is not one for humans.
- When possible, wear protective clothing such as waterproof boots or waders when participating in recreational or work activities that might result in contact with contaminated water.
- If your travel plans might put you at risk for leptospirosis, speak to your health care provider about taking antibiotics before and during travel to help prevent infection from short-term, high-risk exposures.

**Additional Information:**

CDC Leptospirosis Disease Fact Sheet –  
<http://www.cdc.gov/leptospirosis/index.html>

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