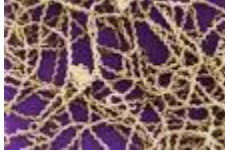


# Leptospirosis

## What is Leptospirosis?



Leptospirosis is a bacterial disease that affects humans and animals. It is caused by bacteria of the genus *Leptospira*. In humans, it can cause a wide range of symptoms, some of which may be mistaken for other diseases. Some infected persons, however, may have no symptoms at all.

## How is it Spread?

The bacteria that cause leptospirosis are spread through the urine of infected animals, which can get into water or soil and can survive there for weeks to months. Many different kinds of wild and domestic animals carry the bacterium. When these animals are infected, they may have no symptoms of the disease.

Infected animals may continue to excrete the bacteria into the environment continuously or every once in a while for a few months up to several years.

Humans can become infected through:

- Contact with urine (or other body fluids, except saliva) from infected animals.
- Contact with water, soil, or food contaminated with the urine of infected animals.

The bacteria can enter the body through skin or mucous membranes (eyes, nose, or mouth), especially if the skin is broken from a cut or scratch. Drinking contaminated water can also cause infection. Outbreaks of leptospirosis are usually caused by exposure to contaminated water, such as floodwaters. Person to person transmission is rare.

## Signs and Symptoms

In humans, Leptospirosis can cause a wide range of symptoms, including:

- High fever
- Vomiting
- Diarrhea
- Headache
- Jaundice (yellow skin and eyes)
- Rash
- Chills
- Red eyes
- Muscle aches
- Abdominal Pain

Many of these symptoms can be mistaken for other diseases. In addition, some infected persons may have no symptoms at all.

The time between a person's exposure to a contaminated source and becoming sick is 2 days to 4 weeks. Illness usually begins abruptly with fever and other symptoms. Leptospirosis may occur in two phases:

- After the first phase (with fever, chills, headache, muscle aches, vomiting, or diarrhea) the patient may recover for a time but become ill again.
- If a second phase occurs, it is more severe; the person may have kidney or liver failure or meningitis. This phase is also called Weil's disease.

The illness lasts from a few days to 3 weeks or longer. Without treatment, recovery may take several months.

## Diagnosis

Leptospirosis is diagnosed by a specific blood test.

## Treatment

Leptospirosis is treated with antibiotics, such as doxycycline or penicillin, which should be given early in the course of the disease.

Intravenous antibiotics may be required for persons with more severe symptoms. Persons with symptoms suggestive of leptospirosis should contact a health care provider.

## People at Risk

Leptospirosis occurs worldwide, but is most common in temperate or tropical climates. It is an occupational hazard for many people who work outdoors or with animals, such as:

- Farmers
- Mine workers
- Sewer workers
- Slaughterhouse workers
- Veterinarians and animal caretakers
- Fish workers
- Dairy farmers
- Military personnel

The disease has also been associated with swimming, wading, kayaking, and rafting in contaminated lakes and rivers. As such, it is a recreational hazard for campers or those who participate in outdoor sports. The risk is likely greater for those who participate in these activities in tropical or temperate climates.

In addition, incidence of Leptospirosis infection among urban children appears to be increasing.

## Prevention

The risk of acquiring leptospirosis can be greatly reduced by not swimming or wading in water that might be contaminated with animal urine, or eliminating contact with potentially infected animals.

Protective clothing or footwear should be worn by those exposed to contaminated water or soil because of their job or recreational activities.



**For more sources of information on this topic visit:**

ST. CLAIR COUNTY HEALTH DEPARTMENT [www.scchealth.co](http://www.scchealth.co)

MICHIGAN DEPARTMENT OF HEALTH AND HUMAN SERVICES [www.michigan.gov/mdhhs](http://www.michigan.gov/mdhhs)

CENTERS FOR DISEASE CONTROL AND PREVENTION [www.cdc.gov](http://www.cdc.gov)