

# Leptospirosis (Weil's Disease)

Leptospirosis is an infection caused by corkscrew-shaped bacteria called *Leptospira interrogans*. The bacteria occur worldwide and many different serotypes are known.

People get leptospirosis by contact with fresh water, wet soil or vegetation that has been contaminated by the urine of infected animals, especially rodents (rats, mice), cattle, pigs, horses and dogs. Both domestic and wild animals can carry leptospirosis and they pass the bacteria in their urine.

Leptospirosis is an occupational hazard for many people who work outdoors or with animals, such as dairy farmers, sewer workers, veterinarians, abattoir workers and military personnel. Campers and people who participate in outdoor sports such as white water rafting, swimming or wading in contaminated lakes or rivers are also at risk. The *Leptospira* bacteria can enter the body through broken skin, water-softened skin, mucous membranes or by swallowing or inhaling contaminated water.

Symptoms of infection with *Leptospira* may range from no symptoms to fatal, and illness often occurs in two phases. The first phase of illness begins suddenly with symptoms which may include:

- > high fever
- > vomiting and diarrhoea
- > red eyes
- > muscle aches (especially thigh and calf muscles)
- > rash
- > chills
- > headache.

This stage usually lasts five to seven days, then a second phase of illness (immune phase) may follow one to two weeks later, with symptoms such as:

- > jaundice (yellowing of the skin and eyes)
- > kidney failure
- > irregular heart beat
- > lung problems
- > meningitis (inflammation of the lining of the brain)
- > red eyes.

Diagnosis is difficult, but is usually made by blood and urine tests. Early in the illness the *Leptospira* bacteria may be grown from blood or urine, though they take a long time to grow.

## Incubation period

*(time between becoming infected and developing symptoms)*

Usually 10 days, with a range of 2 – 26 days.

## Infectious period

*(time during which an infected person can infect others)*

Infections are the result of contact with the urine of infected animals. Person-to-person transmission does not occur.

## Treatment

Effective antibiotic therapy is available. People with serious illness may require hospitalisation for treatment of complications such as kidney failure.

## Control of spread

- > Minimise contact with fresh water, mud and vegetation that might be contaminated with the urine of infected animals, especially rodents. Wear protective clothing, such as waterproof boots or waders, when participating in recreational or work activities that might result in such exposure.
- > Vaccinate dairy cows.
- > Rodent control is important.
- > No vaccine is available for humans.



**Leptospirosis is a notifiable disease**

- > Serotype