

Leptospirosis (Weil's Disease and Hardjo)

Background Information

Leptospirosis is a zoonotic infection found worldwide, of which there are two forms: Weil's disease and Hardjo. Weil's disease is a potentially serious bacterial infection. It is most commonly acquired from water contaminated with rat urine and is therefore often associated with outdoor water activities. Hardjo is similar to Weil's disease, although usually less serious. It is generally caught from infected cattle.

Organism

Leptospira species

Incidence and Transmission

There are around 50 cases of Leptospirosis each year in the UK, although some of these are acquired abroad.

Weil's disease is spread via direct or indirect contact with rat urine, often via contaminated water.

Hardjo is spread from cattle to humans. Infected cattle spread the disease via bacteria in their urine.

The bacteria enter through cuts or abrasions in skin or through the mucous membranes of the nose, mouth and eyes.

Leptospirosis infections are not generally spread from person to person.

Occupations and processes where Weil's disease may present a risk

Occupational exposure may occur in those who:

- are in contact with water contaminated with rat urine;
- are in contact with other materials contaminated with rat urine; or
- are in contact with rats.

Occupations where there may be a risk of occupationally acquired Weil's disease include:

- watersports instructors;
- workers in outdoor leisure industries, particularly if in contact with water;
- sewage and waste water workers;
- divers;
- construction/demolition/building renovation workers – where there are rodents or stagnant water;

- farm workers; and
- pest control workers.

Occupations and processes where Hardjo may present a risk

Occupational exposure may occur in those who:

- are in contact with infected cattle – particularly being splashed with urine; or
- work with materials or products from infected cattle.

Occupations where there may be a risk of occupationally acquired Hardjo include:

- cattle and dairy farmers – particularly urine splash during milking;
- veterinary surgeons; and
- abattoir workers, meat processing plant workers and butchers.

Clinical Information

The incubation period is generally 7–21 days (may be 2–30 days).

Some cases are asymptomatic or have mild flu-like symptoms. In more severe cases symptoms include fever, severe headache, muscle pain and vomiting, and may lead to jaundice, meningitis and kidney failure. The disease can be fatal.

Anyone with flu-like symptoms who may have been in contact with rat urine or with cattle or their products should seek medical attention. Antibiotic treatment should be started as soon as possible.

Control

The following control measures reduce the risk of infection:

- Cattle herds may be vaccinated against *Leptospira* infections, although this does not totally eliminate the risk of infection.
- The rat population should be effectively controlled.
- Cuts and abrasions should be covered with waterproof dressings.
- Good occupational hygiene practices should be followed, especially washing with warm water and soap.
- Suitable protective gloves should be worn when handling rats (dead or alive).
- Suitable protective clothing should be worn when working with cattle or cattle products, eg gloves and waterproof overalls where there is a risk of urine splash.
- A suitable disinfectant should be used.
- If involved in watersports, full immersion in lake water should be avoided where possible.

- Always shower after watersports, especially if you fall in.

Further Information

[HSE – Leptospirosis information](#)

[Public Health England – Leptospirosis](#)

[NHS Choices – Leptospirosis](#)