

Leptospirosis

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What is leptospirosis?

Leptospirosis is a disease that humans get from contact with infected animals. It is caused by *Leptospira* bacteria. Many different animals both domestic and wild can harbour *Leptospira* including rats, mice, possums, hedgehogs and dogs. Animals processed for meat - cattle, pigs, sheep, goats and deer - can also be infected. Approximately 50 to 100 cases of leptospirosis are notified each year in New Zealand.

What are the symptoms?

The common symptoms of leptospirosis include:

- fever and chills
- headaches and lethargy
- aching muscles
- red eyes
- nausea and vomiting.

The severe form of leptospirosis (Weil's disease) affects the kidney and liver (causing jaundice) and may cause bleeding. Meningitis can also occur and occasionally the disease is fatal.

Symptoms appear between 1 to 4 weeks after a person is infected and last for a few days to three weeks or longer. Some people may take months to recover.

How is it caught or spread?

Infection occurs when urine (or other fluids) from an infected animal or water contaminated with animal urine, gets into the eyes, nose, mouth or through cracks in the skin. Infection can occur following contact with soil contaminated with the urine of infected animals.

Factors increasing the chances of leptospirosis in a risk environment include having cuts, cracks or grazes on the skin and eating or smoking with unwashed hands,

How is it diagnosed and treated?

The disease may be difficult to diagnose. Blood tests are done for antibody levels and culture for the organism from blood or urine may be attempted. Modern molecular diagnostic techniques are being developed.

Leptospirosis is treated with antibiotics.

Leptospirosis is notifiable to the Medical Officer of Health at Community and Public Health. Staff may contact the person to find out how they became infected.

Who is at risk?

Most New Zealand cases are occupationally acquired and are associated with farms and the meat processing industry. Vets are also at risk. A person who developed leptospirosis as a result of his/her employment is eligible for ACC cover.

Occasionally hunters, those having contact with wild animals and those exposed to rural environments including lakes and streams get leptospirosis.

How is the disease prevented?

Farm workers and those in the meat processing industry should **keep urine splashes off their skin and face, and keep their skin dry.**

Good work practices help to do this, including:

- wearing gloves, overalls, aprons, boots, hats and eye shields when handling live animals (e.g. during milking, tagging, birthing)
- wearing the proper protective equipment and clothing when processing carcasses
- washing hands using soap, and drying them using disposable towels before eating or smoking and after handling animals or equipment that may be contaminated
- showering after work, covering any skin cuts with waterproof dressings.

For other people disease can be prevented by:

- avoiding contact with water that is likely to be contaminated with animal urine
- covering cuts and abrasions with waterproof dressings, especially before coming into contact with soil, mud or water that may be contaminated with animal urine
- wearing footwear outdoors, especially when walking in mud or moist soil
- wearing gloves when gardening.

There is no leptospirosis vaccine for humans but there is a vaccine for animals.

Controlling leptospirosis in animals

The following steps can reduce the risk of animals contracting leptospirosis.

- Vaccination can stop animals shedding the bacteria and spreading the infection. The vaccine is available for cattle, pigs, deer, sheep and dogs and the option should be discussed with a vet.
- Not feeding raw offal to dogs.
- Controlling rodent infestation.