

Leptospirosis

What is leptospirosis and what causes it?

Leptospirosis (LEP-toe-spy-ROW-sis) is a disease caused by spiral shaped bacteria. Humans and animals are most likely to get leptospirosis from drinking water contaminated with the bacteria. The disease occurs worldwide. Cases usually occur during the summer and fall. In tropical climates, disease is more common during the rainy season. Large outbreaks have occurred after floods.

What animals get leptospirosis?

Leptospirosis can affect many species of wild and domestic animals, including marine mammals. The disease can affect cattle, sheep, goats, pigs, horses, and dogs but is rare in cats.

How can my animal get leptospirosis?

Leptospirosis is spread through the urine of infected animals, which gets into water or soil and can survive there for weeks to months. Animals become infected when they come into **direct contact** with this contaminated water or soil. The bacteria enter through cuts in the skin or through mucous membranes (eyes, nose or mouth). Animals can also become infected by drinking (**oral**) contaminated water. The bacteria can also be inhaled (aerosol).

How does leptospirosis affect my animal?

Disease in cattle, sheep, goats and swine may include a fever and reproductive problems (e.g., abortions). In horses, the eye is most commonly affected. The eyelids may be

reddened, the horse will be sensitive to light and may blink frequently or clouding of the eye may be seen.

Signs of disease in dogs may include fever, vomiting, abdominal pain, diarrhea, refusal to eat, weakness, depression, stiffness and severe muscle pain. Some infected animals may show no signs of illness. Kidney damage can also occur from the disease. Young animals are usually more severely affected than older animals.

Can I get leptospirosis?

Yes. Humans can become infected with leptospirosis in ways similar to animals (**direct contact** with contaminated water or soil, ingestion [**oral**], or inhalation [**aerosol**]). Humans can also be exposed through direct contact with the urine of infected animals.

Disease may range from mild to severe. Signs include flu-like illness (fever, body aches, headache), weakness, vomiting, mental confusion, jaundice (orange/yellow skin color), and stiff neck. Severe cases can lead to damage of the liver, kidney or central nervous system (brain, spinal cord).



Leptospira
are spiral shaped bacteria,
that damage the liver,
kidneys and other organs

Photo: Electron micrograph of Leptospira.

Who should I contact, if I suspect leptospirosis?

In Animals –

Contact your veterinarian.

In Humans –

Contact your physician.

How can I protect my animal from leptospirosis?

Avoid contact with contaminated water or soil environments or infected wildlife, especially rodents. Do not allow animals to drink from or enter contaminated bodies of water.

Leptospirosis vaccines are available for pigs, cattle and dogs. These vaccines help to prevent disease severity but may not completely prevent infection.

How can I protect myself from leptospirosis?

Prevent and control infection in animals. Mice and rats can be reservoirs of the disease so rodent control is important. Do not handle urine, blood or tissues from infected animals. If you have contact with infected animals, wear protective clothing, especially gloves. Always wash your hands after touching animals or anything that may have been contaminated with animal urine.

For More Information

CFSPH Technical Fact Sheets. Leptospirosis at <http://www.cfsph.iastate.edu/DiseaseInfo/>

CDC website. Leptospirosis at http://www.cdc.gov/ncidod/dbmd/diseaseinfo/leptospirosis_g_pet.htm