

HOW IS LEPTOSPIROSIS PREVENTED?

Fortunately, **vaccines are available** to help protect dogs from this potentially life-threatening disease. Vaccination also reduces the chance an infected dog will spread leptospirosis to others.

Experts recommend that **all** dogs be vaccinated against leptospirosis, starting at 12 weeks of age with a series of two vaccinations, followed by annual boosters.

Limiting your dog's exposure to possible sources of *Leptospira* bacteria also can help:

- Avoid letting your dog drink from or swim in rivers, lakes, ponds, marshy areas, or slow-moving or stagnant water.
- Keep your dog away from farm animals and wild rodents, including carcasses.

Although an infected dog is unlikely to infect you and your family, there still is some risk. Infected dogs also may infect other pets in the home. The following precautions can help protect you all:

- Give antibiotics to your infected dog as prescribed by your veterinarian.
- Wash your hands after handling the dog.
- Avoid contact with urine.
- Quickly clean up any urine in the home with a household disinfectant, and wear gloves while doing so.
- Encourage your dog to urinate away from standing water or areas where people or other animals will have access.

Consult your physician if you are ill, pregnant, or immunocompromised, or if you have questions about leptospirosis in people.

FOR MORE INFORMATION ON HOW TO KEEP YOUR PET HAPPY AND HEALTHY AS LONG AS POSSIBLE, VISIT:

American Veterinary Medical Association
avma.org/PetOwners



avma.org

(C) 2025 American Veterinary Medical Association

mcm-0825

LEPTOSPIROSIS IN DOGS

*Brought to you by your veterinarian
and the American Veterinary Medical Association*



Leptospirosis is a serious disease caused by infection with *Leptospira* bacteria. These bacteria can be found worldwide in soil and water. Multiple strains (serovars) of *Leptospira* can cause disease, and a wide range of mammals are susceptible—including dogs, people, livestock, and some wildlife. Although cats also may become ill, this happens only rarely.

WHERE DOES LEPTOSPIROSIS OCCUR?

Leptospirosis is more common in warm climates with high annual rainfall, but it can occur anywhere. Outbreaks have been reported after heavy rainfall and flooding.

For dogs, the midwestern, eastern, and southwestern regions of the United States are considered hotspots of infection. The risk of infection is generally higher in the late summer and fall, but this timing can vary depending on the region or climate.

HOW IS LEPTOSPIROSIS SPREAD?

Leptospirosis is most often spread through the urine of an infected animal, especially (but not only) wild rodents. Infected dogs can seem healthy but still pass *Leptospira* bacteria in their urine. The bacteria can survive for weeks to months in urine-soaked soil.

Dogs typically become infected when their mucous membranes (as in the mouth, nose, or eyes) or skin wounds (like cuts or scrapes) are exposed to urine or urine-contaminated water or soil. Infection can also be spread through urine-contaminated food or bedding, or the tissues or carcasses of infected animals. There also are rare instances when exposure occurs through breeding with or being bitten by infected animals. An infected mother dog may pass the bacteria to her unborn puppies through the placenta.

Experts recommend that all dogs be vaccinated annually against leptospirosis.

WHAT DOGS ARE AT RISK?

All dogs are at risk of leptospirosis, regardless of age, breed, sex, geographic location, lifestyle, and season. The following situations can increase that risk:

- Exposure to or drinking from slow-moving or stagnant water sources, like ponds, rivers, lakes, or streams
- Roaming on rural properties (because of exposure to potentially infected wildlife or farm animals or urine-contaminated water sources)
- Exposure to wild animals (especially rodents) or farm animals, even if in the backyard
- Contact with other dogs (such as in urban areas, dog parks, or boarding or training facilities)

WHAT ARE THE SIGNS OF LEPTOSPIROSIS?

The signs of leptospirosis in dogs vary, depending on the *Leptospira* strain, the dog's immune response, and other factors. Some infected dogs have no signs of illness; some have a mild and brief illness and recover on their own; and others develop severe, life-threatening illness.

For dogs that do become ill, their signs often mimic those of other diseases. These are the most common signs:

- Loss of appetite
- Vomiting
- Lethargy
- Abdominal pain
- Diarrhea
- Jaundice (yellowing of the skin and mucous membranes)
- Dehydration
- Drinking or urinating more than usual
- Weight loss
- Stiffness or muscle pain

The disease can progress to kidney and/or liver failure. Some dogs may develop severe lung disease and rapid, difficult breathing. Less commonly, dogs may develop signs of heart muscle damage.

Leptospirosis also can cause bleeding disorders, which can lead to blood-tinged vomit, urine, feces (poop), or saliva; nosebleeds;

and tiny red spots on the gums or other mucous membranes, or on light-colored skin. Fluid can build up in the body, causing swollen legs or excess fluid in the chest or abdomen.

HOW IS LEPTOSPIROSIS DIAGNOSED AND TREATED?

Because leptospirosis can look like other diseases, your veterinarian will need your help to make a diagnosis. This includes sharing information about your dog's lifestyle and travel history, which can help highlight possible exposure to *Leptospira* bacteria. In addition to a complete physical exam, your veterinarian may recommend blood tests, urine tests, X-rays, and an ultrasound exam. The choice of recommended tests is usually based on the nature and severity of the illness.

Leptospirosis generally is treated with antibiotics and supportive care. Depending on how sick an affected dog is, they may require fluid therapy, medications, and nutritional support. Dogs with severe disease may need intensive care like oxygen therapy, mechanical breathing support, or dialysis.

When leptospirosis is treated early, the chances for recovery are good. However, there is still a risk of permanent kidney or liver damage. For dogs whose kidneys are struggling to pass urine despite supportive treatment, a referral for dialysis may provide support until the kidneys recover function—and can be lifesaving. Dogs with severe respiratory disease are less likely to recover, even with treatment.

CAN PEOPLE CATCH LEPTOSPIROSIS?

Yes. Leptospirosis is one of the most widespread zoonotic diseases in the world, meaning it can be spread between animals and people. Infection in people can cause flu-like symptoms, inflammation of the eyes and/or heart muscle, neurologic problems, and liver and/or kidney disease. In the United States, most human cases of leptospirosis have been traced back to recreational activities involving water or exposure to infected rodents. Transmission of leptospirosis from an infected dog or cat is much less common, but it is possible.