



This Dog Has Leptospirosis. Is the Owner at Risk?

George E. Moore, DVM, PhD
Purdue University

Michael R. Lappin, DVM, PhD, DACVIM
Colorado State University

There are multiple *Leptospira* species that can infect dogs, cats, or humans, and these bacteria have worldwide distribution.

In General

- ▶ Prevalence rates vary by region and species, and multiple different wildlife reservoirs exist.
- ▶ Organisms are commonly shed in urine; infection is often initiated after ingestion of contaminated water.
 - Alternatively, *Leptospira* spp infections can occur via direct penetration of intact skin.
- ▶ Clinical manifestations vary and depend on the infecting strain and mammalian species infected.
 - Acute inappetence, vomiting, and renal and hepatic inflammation are common in dogs.
 - Clinical illness is less frequently reported in cats.

- ▶ Humans can develop leptospirosis. In one study, it was estimated that approximately 10% of infected humans were infected from contact with pets.¹

Client Communication

- ▶ Infection appears to be uncommon for owners of dogs with leptospirosis that are undergoing treatment with appropriate antibiotics.
 - Still, owners should consult their physician, particularly if a family member is immunocompromised or develops fever, muscle aches, or headaches.
- ▶ The owner should avoid contact with the urine of the infected pet, use routine household disinfectants to clean areas of urine contamination, and wash hands after handling the infected pet.²
- ▶ Infected dogs should urinate in an

area that is not close to bodies of water or frequented by family members until antibiotic treatment is completed.

- ▶ Repeat infection with *Leptospira* spp can occur.
 - If the source of the primary infection is known, it should be avoided.
- ▶ Dogs vaccinated against the 4 most common *Leptospira* spp serovars are likely to shed fewer organisms if exposed.³

References

1. Meites E, Jay MT, Deresinski S, et al. Reemerging leptospirosis, California. *Emerg Infect Dis.* 2004;10(3):406-412.
2. Sykes JE, Hartmann K, Lunn KF, Moore GE, Stoddard RA, Goldstein RE. 2010 ACVIM small animal consensus statement on leptospirosis: diagnosis, epidemiology, treatment, and prevention. *J Vet Intern Med.* 2011;25(1):1-13.
3. Schuller S, Francey T, Hartmann K, et al. European consensus statement on leptospirosis in dogs and cats. *J Small Anim Pract.* 2015;56:159-179.