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# What to Know About Lepto

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Leptospirosis is a bacterial infection that, until recently, was rarely diagnosed in Colorado dogs. Over the past five years, this has changed dramatically. A Colorado State University Diagnostic Laboratory report has shown that 10-22% (varies with serovar) of dogs tested for Leptospirosis were positive over the last 4.5 years. Because there is much cross reactivity in antibody response to the six major serovars, dogs that develop antibodies to one serovar have antibodies to all or most other serovars. The serovar with the highest titer is thought to be the infective agent. The CSU study points to grippotyphosa, icterohemorrhagiae, and pomona as being the primary serovars in our area.

Depending on the serovar involved, Leptospirosis causes either acute renal failure (canicola and grippotyphosa) or hepatic disease (ictero-hemorrhagiae and pomona) or both. Meningitis, conjunctivitis, rhinitis and uveitis may also occur in affected dogs. This past fall, we saw several cases of acute oliguric renal failure and cholestatic liver disease in young, small breed dogs in the Fort Collins/Loveland area, at least three of which were confirmed as Leptospirosis by serology, urine PCR and/or necropsy. Sadly, all of these patients but one died within 72 hours of hospitalization.

There are many incidental hosts for Leptospirosis in Colorado wildlife, including mice, raccoons, foxes, skunks, opossums, and voles. In addition, studies have shown increased incidence of *L. grippotyphosa* in new housing developments. Leptospirosis is in Colorado and, although the incidence may fluctuate slightly from year to year, it is probably here to stay. As veterinarians, we should be discussing the benefit vs. risk of vaccination with a four-way Leptospirosis bacterin with our clients to limit this disease.

**Dr. Ellen Miller**