

***Ask the Vet:* Leptosporiosis & Giardia are Waterborne Risks**

By Nancy Irvine, DVM – Daisy Hill Animal Hospital, Ltd.

Two waterborne diseases, leptospirosis and giardiasis, should receive consideration for owners of dogs that have access to waterways or moist soil areas, whether it be at home or while on a trip. Streams, ponds, lakes and soil areas that often are moist can harbor these infectious organisms, which can cause disease if encountered.

Most mammals, including people, are susceptible to leptospires bacterial infection. The incidence of leptospires infection is highest in late summer and autumn, because the quantity of bacteria is highest in water and soil after a period of warm weather.

Heavy rains in spring, as we experienced this year, increase the risk of leptospires bacterial infection for our area.

Symptoms of disease resemble the flu with headache, fever, chills and achiness in people. In dogs, the onset of disease usually is characterized by sudden fever, anorexia, lethargy and weakness. Some dogs will have vomiting and diarrhea and/or bloody urine.

This disease strikes hard and fast. It requires immediate treatment to prevent kidney failure, liver damage or death. Diagnosis confirmation requires sophisticated tests on blood or urine samples that must be performed by a reference laboratory.

The leptospires bacteria enter the body through cuts in the skin or through mucus membranes -- eyes nose and mouth. The bacteria are spread into water and moist soil typically by wild animals who have survived infection but still have the bacteria in their bodies. Fluids such as saliva and, especially, urine from these survivor animals contaminate the water and soils.

Leptospires can live long term in the water and soil, but they are sensitive to freezing. Contact with contaminated water or moist soil would be a likely source of infection. The highest concentration of the bacteria may be found in stagnant water.

Prevention of leptospirosis should be discussed with your family veterinarian. Vaccination of dogs at risk is worthwhile. Because the duration of protection for the leptospirosis vaccine is not as long as that of many other vaccines for dogs, your veterinarian may suggest a booster vaccine a month or two prior to late summer or prior to any vacation near water.

Interestingly, veterinarians generally accept that cats do not develop disease from leptospires bacteria. It is hypothesized that cats have developed a sort of immunity due to their longtime predatory history with rodents. Wild rodents commonly are carriers of the leptospires bacteria.

Although several common drugs are effective in aiding survival of an infected dog, some drugs do not clear the leptospires from the body, resulting in a carrier state. Use of medication that will clear the infection is important to reduce exposure risk for your family and other pets.

Giardiasis is another water-associated disease that, unfortunately, can affect both humans and pets. Infection occurs when the microscopic giardia protozoa enters the body by way of the mouth from contaminated water, food or unwashed hands. This protozoal parasite can live on dry surfaces for months, but we think of it as being most commonly associated with lakes, rivers, ponds or streams that are contaminated by sewage or the feces of infected wildlife.

Diarrhea and, sometimes, vomiting are the most common symptoms of disease. Some infected animals may not show any symptoms at all; such animals are carriers or reservoirs for spread of the protozoa. These carriers are often the source of the spread of giardia in places where animals are living in crowded conditions such as shelters or puppy mill kennels.

Very young, elderly and immunocompromised individuals are at highest risk for severe disease.

Laboratory tests performed in veterinary hospitals and ordered through reference laboratories are used to confirm giardiasis. Treatment with a course of oral medications usually is effective but success is somewhat dependent on the overall health of the patient.

No effective vaccine exists for giardiasis; your best prevention is a healthy immune system, good hygiene and avoidance.

When visiting your family veterinarian, it is important to discuss your pet's lifestyle so that preventive care accurately can be tailored to your pet's needs.