

## CANINE VACCINATION INFORMATION



### Leptospirosis

Leptospirosis is an infectious disease that can affect many animals including wildlife, rodents, dogs and people. The disease is caused not just by one specific strain of *Leptospira* spp. but rather by any of a number of different types within this bacterial genus. They exist everywhere in the world but are most commonly prevalent during periods of heavy rainfall.

Dogs can contract the organism through direct contact with another infected animal, by eating infected meat or most commonly through contact with anything that has been contaminated by the urine of an infected animal. Most infections occur when dogs go swimming in and/or drink infected water, but in reality most anything (plants, dirt, objects or water) can be a potential source of infection. Once they are infected, wild animals can serve as reservoirs and may continue to excrete the bacteria into the environment for months or even years, which may then live in the environment for weeks to months.

Unfortunately, leptospirosis infections may present with any of a number of rather vague, non-specific symptoms that can vary in intensity. Some of these may include the following:

- Sudden fever and illness
- Stiffness in muscles, legs, stiff gait
- Shivering
- Weakness
- Depression
- Lack of appetite
- Increased thirst and urination (may be indicative of chronic kidney failure, progressing to inability to urinate)
- Rapid dehydration
- Vomiting, possibly with blood
- Diarrhea, with or without blood
- Bloody vaginal discharge
- Dark red speckled gums (petechiae)
- Yellow skin and/or whites of eyes – anemic symptoms
- Spontaneous cough
- Difficulty breathing, fast breathing, irregular pulse
- Runny nose
- Swelling of the mucous membrane
- Mild swelling of the lymph nodes

Leptospirosis spreads throughout the entire body, reproducing in the liver, kidneys, central nervous system, eyes, and reproductive system. Soon after initial infection, fever and bacterial infection of the blood develop, but these symptoms soon resolve with the reactive increase of antibodies, which clear the spirochetes from most of the system. The extent to which this bacteria affects the organs will depend on your dog's immune system and its ability to eradicate the infection fully. *Leptospira spirochetes* can remain in the kidneys, reproducing there and infecting the urine. Infection of the liver or kidneys can be fatal for animals. Younger animals with less developed immune systems are most likely to develop severe complications.