

## **LEPTOSPIROSIS**

### **What is leptospirosis?**

Leptospirosis is a bacterial disease of dogs that can affect the blood, liver, or kidneys. It is caused by bacteria that are spiral shaped.

### **How do dogs acquire the infection?**

The bacteria are carried mainly by rats and other rodents, but infected dogs can also act as a source of the infection. Ingestion of infected urine is the most important means of transmission, but some forms of the bacteria can penetrate damaged or very thin skin. The incubation period (from infection to onset of clinical signs) is usually 4-12 days.

### **What are the signs of leptospirosis?**

Many infections go undetected, but many other cases can be life-threatening. There are three main forms of the disease: hemorrhagic (bleeding), icteric (liver), and renal (kidney). In the hemorrhagic disease there is early high fever with lethargy and loss of appetite. Multiple small hemorrhages occur in the mouth and on the whites of the eyes. Bloody diarrhea and vomiting may occur. This form is often fatal. The jaundice form begins much like the hemorrhagic form, and many of the signs are the same. It differs in the presence of a yellow color (jaundice or icterus) in the mouth and whites of the eyes. In severe cases in dogs with white hair, the skin will turn yellow. The renal form causes kidney failure. These dogs are very lethargic, anorectic, and experience vomiting. Their mouth may have a very offensive odor, and the ulcers often develop on the tongue. This form may be fatal, but recovered dogs often have chronic kidney disease.

### **How common is leptospirosis?**

This disease is not common in North America because of the past widespread use of vaccine to prevent it. However, it is becoming more common because of the decreased use of the old vaccine due to significant vaccine reactions.

### **What is the treatment?**

Antibiotics are reasonably effective if they are begun promptly. However, these dogs are so sick that hospitalization and intensive nursing care, including intravenous fluids, are necessary.

### **How can leptospirosis be prevented?**

The vaccine for leptospirosis is used to be part of the routine vaccination program of veterinarians. There is a new vaccine which is supposed to be less likely to cause reactions. It is probably prudent to give it at a separate time to minimize the potential for reactions until we know more about it.

### **Can the new vaccine cause reactions?**

Of all the components of a dog's annual vaccinations, the old portion for leptospirosis was the most likely to cause a reaction. This usually results in lethargy for several days and possibly loss of appetite. Sometimes, the face would become swollen as well. At this time, the new vaccine seems to be less associated with this type of vaccine reaction.