

CANINE VACCINATION INFORMATION



Lyme Borreliosis

Lyme disease is one of the most common tick-transmitted diseases. It is caused by a spirochete (bacteria) species of the *Borrelia burgdorferi* group. The dominant clinical feature in dogs is recurrent lameness due to inflammation of the joints. There may also be a lack of appetite and depression. More serious complications include damage to the kidney and, rarely, heart or nervous system disease.

Kidney disease related to Lyme appears to be more prevalent in Labrador retrievers, golden retrievers, and Bernese Mountain dogs.

Many dogs with Lyme disease have recurrent lameness of the limbs due to inflammation of the joints. Others may develop acute lameness, which lasts for only three to four days but recurs days to weeks later, with lameness in the same leg, or in other legs. Better known as “shifting-leg lameness,” this condition is characterized by lameness in one leg, with a return to normal function, and then lameness in another leg; one or more joints may be swollen and warm; a pain response is elicited by feeling the joint; the condition responds well to antibiotic treatment.

Some dogs may also develop kidney problems. If left untreated, this may lead to glomerulonephritis, which causes inflammation and accompanying dysfunction of the kidney’s glomeruli (essentially, a blood filter). Eventually, total kidney failure sets in and the dog begins to exhibit signs such as vomiting, diarrhea, lack of appetite, weight loss, increased urination and thirst, and fluid buildup in the abdomen and tissues, especially in the legs and under the skin.

Other symptoms associated with Lyme disease include:

- Stiff walk with an arched back
- Sensitive to touch
- Difficulty breathing
- Fever, lack of appetite, and depression
- Inflammation of the joints
- Superficial lymph nodes close to the site of the infecting tick bite may be swollen
- Heart abnormalities (rare)
- Nervous system complications (rare)

Borrelia burgdorferi, the bacteria responsible for Lyme disease, is transmitted by slow-feeding, hard-shelled deer ticks. However, infection typically occurs only after the carrier has been attached to the dog for at least 18 hours.