

# Canine Distemper

## Overview

Canine distemper is a highly contagious disease caused by canine distemper virus (CDV). It may affect the respiratory, gastrointestinal and neurologic systems and is generally transmitted through contact with mucous and watery secretions discharged from the eyes and noses of infected dogs. However, it can also be transmitted by contact with urine and other bodily fluids, so your dog may become infected without coming into contact with an infected dog. Air currents and inanimate objects can also carry the virus.

Distemper was a common infection in dogs many years ago, but the incidence has been significantly decreased through widespread vaccination. Canine distemper is now most commonly seen in young, unvaccinated or immune-compromised dogs. More than 50 percent of dogs that contract the disease die from it. Even if a dog doesn't die, canine distemper can cause irreparable damage to the nervous system, leaving the dog with partial or total paralysis, seizures or persistent tics.

## Diagnosis and Treatment Notes:

- Distemper can be difficult to diagnose. A thorough history, physical examination, bloodwork, chest x-rays, evaluation of cells from the underside of the eyelid and cerebrospinal fluid (CSF) taps may be performed. The measurement of distemper antibody titers in the blood may also be recommended.
- Treatment depends on the severity of the disease, your individual pet, and your veterinarian. Pets with distemper are treated with supportive care since there is no treatment that kills the virus. Affected dogs may receive fluids, antibiotics, seizure control medication, and medication to alleviate the various symptoms that develop. Discuss treatment details when your pet is diagnosed with this condition.

## What to Watch for\*:

- Vomiting
- Poor appetite
- Lethargy
- Diarrhea
- Depression
- Seizures
- Involuntary muscle tremors or tics

# Canine Leptospirosis

## Overview

Leptospirosis is a zoonotic disease that can pass from animals to humans. It is a bacterial disease that damages the liver and kidneys of dogs, sometimes resulting in renal failure and death. It is caused by a spirochete (spiral shaped bacterium) called a leptospire.

Leptospire live in fluids from infected animals, including urine, saliva, blood and milk. The disease is transmitted by direct contact with the fluids or with an infected animal. It is also transmitted by indirect contact such as vegetation, food and water, soil and bedding materials. Leptospire enter the body through mucous membranes or through breaks in the skin. The disease may be carried for years in animals without any apparent symptoms of the disease.

Any age, breed or sex of dog is susceptible to leptospirosis, although in general, young animals are more severely affected than adults. Large breed outdoor adult dogs are most commonly affected.

## Diagnosis and Treatment Notes:

- Leptospirosis is generally diagnosed by bloodwork, including a leptospirosis serologic test to detect leptospiral antibodies. In some cases, a kidney biopsy is necessary to make or confirm the diagnosis.
- Treatment depends on the severity of the disease, your individual pet, and your veterinarian. Dogs diagnosed with leptospirosis are treated with antibiotics such as penicillin or tetracycline. Those with kidney failure are also treated with fluid therapy and other medications. Discuss treatment details when your pet is diagnosed with this condition.

## What to Watch for\*:

- Chills and fever
- Lack of appetite
- Weight loss
- Generalized muscle tenderness
- Dehydration
- Blood in the vomit or stool, bloody nose or widespread bruising
- Jaundice
- Labored breathing or coughing
- Sudden lack of production of urine

# Canine Lyme Disease

## Overview

Lyme disease is a bacterial disease caused by a microscopic organism, the spirochete, *Borrelia burgdorferi*, and is spread by ticks. The bacteria normally feed on small mammals, especially mice. Ticks then feed on the mammals and carry the bacteria to their victims. The deer tick is the most common tick involved in spreading the disease, although other ticks can pass it along, too. Ticks capable of spreading Lyme disease are most commonly found in the eastern United States, the upper Midwest and the Pacific Northwest. Lyme disease can affect different organs and body systems. The disease is named because of the initial discovery in human beings that occurred in 1975 in Lyme, Connecticut.

Lyme disease is most common in dogs but has been reported in other species. There appears to be no breed or sex predisposition. Outside, hunting and working dogs are more likely to be exposed to ticks than dogs kept indoors. Puppies appear to have a higher risk, and it is thought that less than five percent of dogs exposed to Lyme disease in an endemic (prone) area may develop clinical signs.

## Diagnosis and Treatment Notes:

- Lyme disease is generally diagnosed by blood tests for Lyme disease titers or a Western blot blood test. Analysis of joint fluid may also be done to rule out other causes of lameness.
- Treatment depends on the severity of the disease, your individual pet, and your veterinarian. Lyme disease is treated with antibiotics such as tetracycline, doxycycline, cephalexin or amoxicillin. Antibiotics are typically continued for up to 4 weeks. Discuss treatment details when your pet is diagnosed with this condition.

## What to Watch for\*:

- Recurrent lameness in a joint with complete recovery
- Reluctance to move (pain)
- Swelling in one or more joints
- Anorexia
- Fever
- Lethargy

# Kennel Cough

## Overview

Kennel cough (infectious tracheobronchitis) is a highly contagious inflammation of the trachea (windpipe) and bronchial tree caused by a contagious virus (adenovirus, parainfluenza virus, canine distemper virus) or bacterium (*Bordetella bronchiseptica*). The infectious agents can be transmitted through the air or by contact with contaminated surfaces. Puppies and young dogs are at greatest risk, especially those housed in high-density situations or boarding kennels.

The incubation period from the time the dog first contracts the infection to the time that symptoms develop is typically between 3 to 10 days, and the symptoms can last for days to weeks. Many dogs will have a mild to moderate cough without other signs, which is usually self-limiting. In some cases, the cough lingers and the dog may develop pneumonia or chronic bronchitis.

## Diagnosis and Treatment Notes:

- Diagnosis is often made based on clinical signs and excluding other diseases. Upon examination, the windpipe is often sensitive to palpation and may elicit a cough. Chest x-rays are usually normal.
- Treatment depends on the severity of the disease, your individual pet, and your veterinarian. For mild cases, the dog usually recovers with no treatment. For others, cough suppressants and sometimes antibiotics are prescribed to prevent secondary infections. Discuss treatment details when your pet is diagnosed with this condition.

## What to Watch for\*:

- Excessive dry cough
- Nasal discharge
- Breathing difficulty
- If your pet does not eat
- If your pet is vomiting or acts lethargic

# Canine Parvovirus

## Overview

Parvovirus is a virus that invades and destroys rapidly growing cells in the intestine, bone marrow and lymphoid tissue resulting in nausea, vomiting and severe bloody diarrhea. The disease can vary from mild to fatal if not properly treated.

Infection is generally attributed to ingestion of material contaminated by infected dog feces and can occur when a dog smells or licks the ground. Parvovirus is shed in the feces of infected dogs for approximately two weeks after initial ingestion and can live in the environment for years.

Dogs at highest risk for infection are unvaccinated puppies or those who have not yet completed their vaccine series. Especially susceptible breeds include Doberman pinschers, Rottweilers, Staffordshire terriers and black Labrador retrievers. Dogs of all ages can be infected, but puppies and younger dogs are more susceptible. Intact male dogs may also be susceptible for unknown reasons.

## Diagnosis and Treatment Notes:

- Parvovirus is generally diagnosed by a thorough history, physical examination and testing of the feces for the presence of viral antigens. Abdominal x-rays and blood tests are often recommended.
- Treatment depends on the severity of the disease, your individual pet, and your veterinarian. Most puppies diagnosed with parvovirus benefit from hospitalization with intravenous fluids, antibiotics and medications to control nausea and vomiting. Discuss treatment details when your pet is diagnosed with this condition.

## What to Watch for\*:

- Depression
- Fever
- Not eating
- Vomiting
- Diarrhea, sometimes bloody