

## CANINE VACCINATION INFORMATION



### **DAPP (Distemper, Adenoviruses, Parvovirus, Parainfluenza,)**

- **Canine Distemper**

Canine distemper is a contagious and serious viral illness with no known cure. The disease affects dogs and certain species of wildlife, such as raccoons, wolves, foxes, and skunks. Ferrets are also carriers of this virus. Young, unvaccinated puppies and non-immunized older dogs are more susceptible to the disease.

The virus, which is spread through the air and by direct or indirect (i.e. utensils, bedding) contact with an infected animal, attacks the respiratory, urogenital, gastrointestinal, and nervous systems. An infected dog will become lethargic and tired, and will usually become anorexic. Persistent coughing, vomiting, and diarrhea may also occur. In the later stages of the disease, the virus starts attacking the other systems of the dog's body, particularly the nervous system. The brain and spinal cord are affected and the dog may start having seizures, paralysis, and attacks of hysteria. In dogs or animals with weak immune systems, death may result

Unfortunately, there is no cure for canine distemper. Treatment for the disease, therefore, is heavily focused on alleviating the symptoms.

- **Adenovirus (Infectious Canine Hepatitis)**

Infectious canine hepatitis is a viral disease that causes upper respiratory tract infections. This virus targets the functional parts of the organs, notably the liver, kidneys, eyes, and the cells that line the interior surface of the blood vessels.

The virus is transmitted via nose and mouth exposure, and then spreads into the bloodstream. The virus is shed into the feces and saliva, making both infectious to other dogs.

In dogs with only partial neutralizing antibody response, chronic hepatitis takes place. This severe condition often results in cytotoxic ocular injury due to inflammation and death of the cells in the eye with inflammation of the front of the eye. This condition leads to one of the more outwardly visible and classic signs of infectious hepatitis: "hepatitis blue eye."

Symptoms will vary depending on the immunologic status of the dog and degree of initial injury to the cells. Symptoms can vary from lethargy, anorexia, transient fever,

tonsillitis, vomiting, diarrhea, lymphadenopathy, enlarged liver, and abdominal pain to symptoms of central nervous system, collapse of blood vessels, coagulation disorder and death.

- **Canine Parvovirus**

The canine parvovirus (CPV) infection is a highly contagious viral illness that affects dogs. The virus manifests itself in two different forms: The more common form is the intestinal, characterized by vomiting, diarrhea, weight loss, and lack of appetite (anorexia). The less common is the cardiac form, which attacks the heart muscles of very young puppies, often leading to death. The majority of cases are seen in puppies between six weeks and six months old.

The major symptoms associated with the intestinal form of a canine parvovirus infection include severe, bloody diarrhea, lethargy, anorexia, fever, vomiting, and severe weight loss. The intestinal form of CPV affects the body's ability to absorb nutrients and an infected animal will quickly become dehydrated and weak from lack of protein and fluid absorption.

The virus is chiefly transmitted either by direct contact with an infected dog, or indirectly, by the fecal-oral route. Heavy concentrations of the virus are found in an infected dog's stool, so when a healthy dog sniffs an infected dog's stool, it will contract the disease. The virus can also be brought into a dog's environment by way of shoes that have come into contact with infected feces. There is evidence that the virus can live in ground soil for up to a year. It is resistant to most cleaning products, or even to weather changes.

For unknown reasons, certain dog breeds, including Rottweilers, Doberman Pinschers, Pit Bulls, Labrador Retrievers, German Shepherds, English Springer Spaniels, and Alaskan sled dogs, are particularly vulnerable to the disease

Since the disease is a viral infection, there is no real cure for it. Treatment is focused on curing the symptoms and preventing secondary bacterial infections in a hospital environment. Intensive therapy and system support is the key to recovery. Intravenous fluid and nutrition therapy is crucial in maintaining a dog's normal body fluid after severe diarrhea and dehydration, and protein and electrolyte levels will be monitored and regulated as necessary. Prognosis is lower for puppies, since they have a less developed immune system. It is common for a puppy that is infected with CPV to suffer shock and sudden death.

- **Parainfluenza (Canine Influenza)**

The virus that causes dog flu, Influenza Type A (H3N8), was first identified in Florida in 2004. It primarily infects the respiratory system and is extremely contagious. A vaccine was granted full license by the United States Department of Agriculture in 2009 (Nobivac® Canine Flu H3N8). Some dogs can be exposed to the virus and fight off infection without showing clinical signs.

Dogs that are infected with the canine influenza virus may develop two different

syndromes: Mild: These dogs will have a cough that is typically moist and can have nasal discharge; occasionally, it will be a drier cough. In most cases, the symptoms will last 10 to 30 days and usually will go away on their own. Severe: Generally, dogs with severe flu have a high fever (above 104°F, 40°C) and develop signs very quickly. Pneumonia, specifically hemorrhagic pneumonia, can develop. The influenza virus affects the capillaries in the lungs, so the dog may cough up blood and have trouble breathing if there is bleeding into the alveoli (air sacs). Patients may also be infected with bacterial pneumonia, which can further complicate the situation.

General signs of these syndromes include coughing, sneezing, anorexia, fever, and malaise. Red and/or runny eyes and runny nose may be seen in some dogs.

The mild form is usually treated with cough suppressants. Antibiotics may be used if there is a secondary bacterial infection. It is important to give the dog rest and keep it isolated from other dogs. The severe form needs to be treated aggressively with a broad spectrum of antibiotics, fluids, and other general support treatments. Hospitalization and isolation are necessary until the dog is stable.