

What is parvovirus?

Canine parvovirus (CPV) disease is currently the most common infectious disorder of dogs in the United States.

- 'Parvo' is a highly contagious disease characterized by diarrhea that is often bloody
- Current vaccinations have helped to control the spread of this disease but despite being vaccinated, some dogs still contract and die from parvo.

How is parvovirus spread?

- ❖ Parvovirus is spread through contact with feces containing the virus.
- ❖ The virus is known to survive on inanimate objects - such as clothing, food pans, and cage floors - for 5 months and longer in the right conditions.
- ❖ . Insects and rodents may also serve as vectors playing an important role in the transmission of the disease
- ❖ The normal incubation period (time from exposure to the virus to the time when signs of disease appear) is from 7-14 days.
- ❖ Virus can be found in the feces several days before clinical signs of disease appear, and may last for one to two weeks after the onset of the disease.

What are the symptoms of parvovirus infection?

There is a broad range in the severity of symptoms shown by dogs that are infected with parvovirus. Many adult dogs exposed to the virus show very few, if any, symptoms. The majority of cases of disease are seen in dogs less than 6 months of age with the most severe cases seen in puppies younger than 12 weeks of age. There are also significant differences in response to parvovirus infections and vaccines among different breeds of dogs, with Rottweilers, Doberman Pinschers, and Labrador Retrievers being more susceptible than other breeds.

- The most common form of the disease is the intestinal form known as **enteritis**.
- Parvovirus enteritis is characterized by vomiting (often severe), diarrhea, dehydration, dark or bloody feces, and in severe cases, fever and lowered **white blood cell** counts.
- **Acute** parvovirus enteritis can be seen in dogs of any breed, sex, or age. The disease will progress very rapidly and death can occur as early as two days after the onset of the disease.

How is parvovirus infection diagnosed?

The only way to know if a dog has parvovirus is through a positive diagnostic test. In addition to the more time consuming and expensive traditional testing of the blood for

titers, a simpler test of the feces with an enzyme-linked immunosorbent assay antigen test (ELISA), commonly called the CITE test, is also available through most veterinary clinics. Testing of all suspect cases of parvo is the only way to correctly diagnose and treat this disease. A complete physical exam and additional laboratory tests such as a **CBC** and **chemistry panel** help to determine the severity of the disease.

How is parvovirus disease treated?

The treatment of parvovirus is fairly straightforward and directed at supportive therapy.

- ❖ Replacing fluids lost through vomiting and diarrhea is probably the single most important treatment. **Intravenous** administration of a balanced **electrolyte** solution is preferred, but in less severe cases, **subcutaneous** or oral fluids may be used.
- ❖ . In severe cases, blood transfusions may be necessary. Antibiotic therapy is usually given to help control secondary bacterial infections.
- ❖ Undertaking the treatment of affected dogs and puppies without professional veterinary care is very difficult. Even with the best available care, the mortality of severely infected animals is high.
- ❖ Without the correct amount of properly balanced intravenous fluids, the chance of recovery in a severely stricken animal is very small.

Immunity and vaccination

- The generally recommended protocol is to vaccinate puppies against parvovirus beginning at 6-8 weeks of age, and revaccinating every 3 weeks until the puppy is 16-20 weeks of age. A booster is given at one year of age and every 1-3 years thereafter.
- Vaccination protocols have been developed that will help protect the widest range of dogs. In using these protocols, we understand we will be vaccinating some dogs that are not capable of responding and we will be revaccinating some dogs that have already responded and developed a high titer

Cleaning the infected area

Indoor decontamination:

- **Indoors, virus loses its infectivity within one month; therefore, it should be safe to introduce a new puppy indoors one month after the active infection has ended.**

Outdoor decontamination:

- **Freezing is completely protective to the virus. If the outdoors is contaminated and is frozen, one must wait for it to thaw out before safely introducing a new puppy.**
- **Shaded areas should be considered contaminated for seven months.**
- **Areas with good sunlight exposure should be considered contaminated for five months.**

Of course, the above presupposes that no decontamination steps (other than waiting) have been taken. In most households, owners want to know how to disinfect their homes to create a safer environment for the other dogs there or to create a safe environment for a new or replacement puppy.

Here's what we know about disinfection:

- **Despite the introduction of new cleaners with all sorts of claims, parvovirus remains virtually impossible to completely remove from an environment. The goal of decontamination is to reduce the number of viral particles to an acceptable level.**
- **The best and most effective disinfectant against viruses (including parvoviruses) is BLEACH. One part bleach is mixed with 30 parts water and is applied to bowls, floors, surfaces, toys, bedding, and anything contaminated that is colorfast or for which color changes are not important.**

Bleach completely kills parvovirus

- **Disinfection becomes problematic for non-bleachable surfaces such as carpet or lawn. Outdoors, if good drainage is available, thorough watering down of the area may dilute any virus present. Since carpet is indoors, it may be best to simply wait a good month or so for the virus to die off before allowing any puppies access to the area.**