



Understanding Canine Parvovirus (CPV) (For the Dog Owner)

Canine Parvovirus is a highly contagious viral infection that is spread from dog to dog through direct and indirect contact with the feces of an infected dog. Parvovirus (parvo), when contracted by a dog, can be fatal. It can be treated, but the mortality rate is quite high. The good news is that measures can be taken to help prevent your dog from becoming infected with parvo.

How Does Parvo Affect a Dog

Lethargy, diarrhea, and vomiting are the most common symptoms. Fever can accompany parvovirus. It is not uncommon for the diarrhea and/or vomiting to be excessive – which can cause dehydration. Dehydration can cause an electrolyte imbalance, which can critically affect a dog. Secondary infections can develop as a result of the weakened immune system. The intestinal lining is affected. Blood and protein leak into the intestine which can lead to anemia, loss of protein and endotoxemia. The white blood cell count falls, further weakening the dog. Any or all of these factors can lead to shock and death.

Risk Factors

- Puppies are at highest risk. Immature immune systems make it difficult for a puppy to fight the viral infection when exposed.
- Any unvaccinated dog – regardless of age – can become infected.
- Dogs that are unvaccinated and live in a high risk area. A high risk area would be one that generally has a population of unvaccinated dogs that come into contact with other dogs – either directly or indirectly.

Prevention

- Vaccinate
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- Vaccinate – we can't say it enough. Vaccination is very effective in preventing parvovirus infection. **Puppies** should begin as soon as possible after adoption. At HSHA, we recommend beginning the vaccination process at 6-8 weeks of age. Booster vaccines should then be administered every 2-4 weeks until the pup reaches the age of 16 weeks. **Adult dogs** should be vaccinated with the initial vaccine, with a booster being administered 2-4 weeks after the initial vaccine was given. In both cases, once the initial series has been completed, the vaccine needs to be given annually.

- If you have a puppy, do not allow him/her access to areas where unfamiliar dogs frequent. Don't walk your pup through the neighborhood; don't go to the dog park, the pet store, groomer, doggy-daycare or a boarding kennel. When you take your pup to the vet's office, carry him/her. Don't allow visits with dogs that are not up-to-date with their vaccines. Going out in your yard is probably OK – unless you live in an area where a lot of strays wander in and out of your yard. In that case, try to limit access to your yard from other dogs.

Treatment

Parvovirus can be successfully treated, but the mortality rate is quite high, and the cost can be quite high. The survival rate depends on how quickly a diagnosis was made, the age of the dog and how aggressive the treatment. Treatment usually involves extensive hospitalization for (supportive care) due to severe dehydration, damage to the intestines and bone marrow. Supportive care can include IV fluids, anti-nausea medication and medications administered to keep the dog comfortable through serious bouts of diarrhea and vomiting. In some cases, a blood plasma transfusion can be performed using the plasma of a dog who has recovered from CPV. Some veterinary hospitals have plasma onsite – or keep dogs on hand to be donors. Call your veterinarian immediately if you suspect your dog has parvo.

Decontamination/Disinfection

Unfortunately, CPV is a very hardy virus. It can live in the environment for months to years – especially in dark moist environments. Only one household cleaner/disinfectant will kill parvovirus, and that is household bleach (5% sodium hypochlorite) diluted at ½ cup of bleach per 1 gallon of water. The area to be cleaned must be cleared/pre-cleaned of all organic matter (feces, urine, plants... anything). The bleach needs a contact time of at least 20 minutes to effectively kill the virus. Affected areas should be cleaned at least 2 times (we recommend 3), paying attention to cracks, corners, crevices – any area where a miniscule particle of contamination could be hiding. After use, soak your cleaning tools in a bleach solution of the same concentration. This will help prevent cross-contamination from the tools to a new or currently disinfected area.

“Parvo” is a word that strikes fear in the hearts of shelter workers because we have seen the effects of this virus. We know how deadly it can be. We know how easily spread it is. We also know how easily preventable it can be. Vaccination is the key to prevention. There are many low-cost vaccine clinics offered in the community making affordable vaccination within reach of all dog owners. There is no excuse not to vaccinate a dog. If you are taking on the responsibility of bringing a dog into your home, you should be committed to providing the necessary care that will keep your pet healthy from those illnesses that are preventable.