Fact Sheet
PARVOVIRUS INFECTION

What is Canine Parvovirus disease?
Canine parvovirus (CPV) infection is a relatively new disease that first appeared in 1978. Because of the severity of the disease and its rapid spread through the canine population, CPV has aroused a great deal of public interest. The virus that causes it is very similar to feline enteritis, and the two diseases are almost identical. Therefore, it has been speculated that the canine virus is a mutation of the feline virus. However, that has never been proven.

How does a dog become infected with parvovirus?
The causative agent of CPV disease, as the name infers, is a virus. The main source of the virus is the feces of infected dogs. The feces of an infected dog can have a high concentration of viral particles. Susceptible animals become infected by ingesting the virus. Subsequently, the virus is carried to the intestine where it invades the intestinal wall and causes inflammation.
Unlike most other viruses, CPV is stable in the environment and is resistant to the effects of heat, detergents, and alcohol. CPV has been recovered from dog feces even after three months at room temperature. Due to its stability, the virus is easily transmitted via the hair or feet of infected dogs, contaminated shoes, clothes, and other objects. Direct contact between dogs is not required to spread the virus. Dogs that become infected with the virus and show clinical signs will usually become ill within 7-10 days of the initial infection.

How does this disease affect the dog?
The clinical manifestations of CPV disease are somewhat variable, but generally take the form of severe vomiting and diarrhea. The diarrhea may or may not contain blood. Additionally, affected dogs often exhibit a lack of appetite, depression, and fever. It is important to note that many dogs may not show every clinical sign, but vomiting and diarrhea are the most common signs; vomiting usually begins first. Parvo may affect dogs of all ages, but is most common in dogs less than one year of age. Young puppies less than five months of age are often the most severely affected and the most difficult to treat.

How is it diagnosed?
The clinical signs of CPV infection can mimic other diseases causing vomiting and diarrhea; consequently, the diagnosis of CPV is often a challenge for the veterinary surgeon. The positive confirmation of CPV infection requires the demonstration of antigens to the virus in the feces. This is achieved by taking a swab of the patient's rectum and using a simple test kit that takes a total of around 10 minutes to perform. Occasionally, a dog will have parvovirus but test negative for antigens to the virus in the feces. Fortunately, this is not a common occurrence.

Can it be treated successfully?
As with any virus disease there is no treatment to kill the virus once it infects the dog. However, the virus does not directly cause death; rather, it causes loss of the lining of the intestinal tract. This results in severe dehydration, electrolyte (sodium and potassium) imbalances, and infection in the bloodstream (septicaemia). It is when the bacteria that normally live in the intestinal tract are able to get into the blood stream that it becomes more likely that the animal will die.
The first step in treatment is to correct dehydration and electrolyte imbalances. This requires the administration of intravenous fluids containing electrolytes. Antibiotics and anti- inflammatory drugs are

given to prevent or control septicemia. Antispasmodic drugs are used to inhibit the diarrhea and vomiting that perpetuate the problems.

What is the survival rate?
Most dogs with CPV infection recover if aggressive treatment is used and if therapy is begun before severe septicaemia and dehydration occur. **Delaying medical care can mean life or death if your puppy is parvo positive.** For reasons not fully understood, some breeds, notably the Rottweiler, have a much higher fatality rate than other breeds.

Can it be prevented?
The best method of protecting your dog against CPV infection is proper vaccination. **It's very important to avoid public places if your puppy has not been fully vaccinated.** Puppies receive a parvo vaccination as part of the vaccines given at 6, 12 and 16 weeks of age. After the initial series of vaccinations when the dog is a puppy, all dogs should be boosted at least once a year. Bitches should be boosted before mating or immediately before whelping in order to transfer protective antibodies to the puppies. The final decision about a proper vaccination schedule should be made by your veterinary surgeon. **It is suggested to bleach your shoes and change your clothes when coming home until your puppy is fully vaccinated.**

Should I Titer Test My Dog?
In short, YES. If your not familiar with what titer testing is, A titer test is a blood test that measures the level of immune system proteins called antibodies. When your dog gets a vaccination, their immune system responds by producing antibodies, which the body can use to fight off future infections. The titer test determines how many antibodies are still in your dog's blood after one or more years from the time of vaccination. Vaccines are important because they inject a replicated part of a virus or bacteria that is dead or weakened, which allows your dog to build up immunity without getting sick. Still, vaccines have risks, though they are uncommon and usually don't outweigh the benefits. That's not to say vaccinations aren't necessary. The major diseases that are vaccinated against are distemper, parvovirus, adenovirus, and rabies. These diseases have a mortality rate of 60 to 80 percent in young dogs, so the risk of rare complications from a vaccine doesn't outweigh the danger of what they protect your dog against.
Still, if a dog's immune system is capable of fending off these diseases, there may be no need to over-vaccinate and face the risks. That is what the titer test should determine. Defiantly talk with your vet to see if this is something they can offer you.

Is there a way to kill the virus in the environment?
The stability of the CPV in the environment makes it important to properly disinfect contaminated areas. This can be accomplished by cleaning food bowls, water bowls, and other contaminated items with a solution of 250 mL of chlorine bleach in 5 liters of water. It is important that chlorine bleach or glutaraldehyde based disinfectants be used because many other "viricidal" disinfectants will not kill the canine parvovirus.

Does parvovirus pose a health risk for me? How about for my cats?
It is important to note that at the present time, there is no evidence to indicate that CPV is transmissible to cats or humans.