

# Coronavirus

*Drs. Foster & Smith Educational Staff*

Canine Coronavirus (CCV) is the second leading viral cause of diarrhea in puppies with canine Parvovirus being the leader. Unlike Parvovirus, Coronavirus infections are not generally associated with high death rates. Canine Coronavirus is not new to the canine population; it has been known to exist for decades. Most domestic dogs, especially adults, have measurable Coronavirus antibody titers indicating that they were exposed to canine Coronavirus at some time in their life. Its importance as an infectious disease and killer of dogs has probably been overestimated by vaccine manufacturers and some veterinary authorities.



Canine Coronavirus is a single stranded RNA type of virus with a fatty protective coating. Because the virus is covered in a fatty membrane, it is relatively easily inactivated with detergent and solvent-type disinfectants. It is spread by virus shedding in the feces of infected dogs.

What are the symptoms?

The primary symptom associated with canine Coronavirus is diarrhea. As with most infectious diseases, young puppies are more affected than adults. Unlike Parvovirus, vomiting is not common. The diarrhea tends to be less profuse than that associated with Parvovirus infections. Although canine Coronavirus is generally thought of as a milder cause of diarrhea than Parvovirus, there is absolutely no way to differentiate the two without laboratory testing. Both Parvovirus and Coronavirus cause the same appearing diarrhea with an identical odor. The diarrhea associated with Coronavirus usually lasts several days with low mortality. To complicate the diagnosis, many puppies with a severe intestinal upset (enteritis) are affected by both Coronavirus and Parvovirus simultaneously. Mortality rates in puppies simultaneously infected may approach 90 percent.

What are the risks?

As previously stated, canine Coronavirus has been widespread among the canine population for many years. Many dogs, especially adults, are either naturally immune and not susceptible, or develop a very mild, oftentimes unnoticeable, case of the disease. Puppies less than twelve weeks of age are at the greatest risk and some especially weaker ones will die if exposed and infected. Most puppies, however, will recover after several days of mild to severe diarrhea.

What is the management?

As with canine Parvovirus, there is no specific treatment for canine Coronavirus. It is very important to keep the patient, especially puppies, from developing dehydration. Water must be force fed or specially prepared fluids can be administered under the skin (subcutaneously) and/or intravenously to prevent dehydration.

Vaccines are available to protect puppies and adults of all ages against canine Coronavirus. In areas where canine Coronavirus is prevalent, dogs and puppies should remain current on Coronavirus vaccinations beginning at or about six weeks of age. Sanitation with commercial disinfectants is highly effective and should be practiced in breeding, grooming, kennel housing, and hospital situations.