



## Canine Parvo Virus

- Is a Highly Contagious Viral Disease
- Appears Suddenly and Has a High Mortality Rate
- Can Be Prevented By Vaccination

Canine parvo virus strikes with severity, spreads rapidly, and affects dogs of all ages. It attacks the lining of the intestinal tract causing vomiting, diarrhea, depression, dehydration and, frequently, death. In one form, canine parvo virus causes sudden death from heart disease in very young puppies.

### How has animal research helped dogs with parvo virus?

In the spring of 1978 a worldwide outbreak of disease in dogs struck in epidemic proportions. Canine parvo virus, not previously recognized, was isolated in dogs in the fall of 1978. The use of dogs in finding the cause, diagnosis, transmission, and prevention of the disease was essential because this particular disease is not reproducible in small laboratory animals. However, research soon proved the disease to be similar to feline distemper for which an effective vaccine is available. This discovery, one of the greater success stories of modern veterinary medicine, led to the development of a vaccine for canine parvo virus within a year of the initial epidemic. Because the new vaccine was intended for dogs, it had to be carefully tested in research dogs to demonstrate its safety and efficacy before it was released for use on privately owned pets. The

vaccine proved effective and stopped the outbreak almost immediately.

### Is animal research still necessary on canine parvo virus?

No vaccine works one hundred percent of the time. More study is necessary to determine why some dogs do not respond to the vaccine and therefore still acquire the disease after vaccination. We also need to know why some purebred dogs, such as German Shepherd, Doberman and Rottweiler, are more susceptible to the disease. Parvo virus continues to cause sickness and death, especially in puppies six to sixteen weeks of age. Puppies kept in large colonies or kennels also run a greater risk of getting the disease.

### What's ahead in canine parvo virus research?

Researchers continue to look for ways to treat and prevent parvo virus in dogs not helped by vaccination. The study of the disease in laboratory dogs is essential to their search. More effective means of treatment and prevention are possible only through continued research with dogs and other animals with related disorders.



**Michigan Society for Medical Research**  
P.O. Box 3237 • Ann Arbor, Michigan 48106-3237  
tel 734.763.8029  
fax 734.930.1568  
email [mismr@umich.edu](mailto:mismr@umich.edu)  
web [www.mismr.org](http://www.mismr.org)





## Feline Leukemia Virus

- Is a Long-term, Contagious Viral Infection
- Affects Two to Three Percent of the Cat Population
- Vaccination Reduces the Risk of Infection By Only About Fifty Percent

**F**eline leukemia virus, or FeLV, is one of the most important causes of disease in cats today. Infected cats may show a variety of symptoms including fever, loss of appetite, weight loss, diarrhea, and anemia. FeLV caused illnesses may take a year or more to become noticeable and may persist for weeks, months, or even years. FeLV can cause death from cancer or from an AIDS like disease which destroys the cat's natural resistance to infection. The virus is spread from one cat to another through licking, biting, scratching, or sharing food bowls and litter boxes. A pregnant cat may pass the virus to her kittens before they are born and nursing mothers can transmit the virus in their milk. Animals that live closely together in a multi-cat household or large cattery are at a greater risk. A vaccine is available to help prevent infection in cats exposed to the virus.

### How has animal research helped with feline leukemia?

The use of cats in research enabled veterinary researchers to isolate the virus that is responsible for many feline diseases. FeLV was identified in 1964, but until 1970 researchers focused primarily on its cancer causing effects. That year a blood test was developed which proved that many cats

suffering from a variety of illnesses are actually infected with FeLV. As a result, research took a new direction. Researchers found that FeLV infection could be present in cats for a long time without producing outward signs of disease. Additionally, the course and outcome of FeLV caused diseases were discovered to be unpredictable. Although a majority of exposed cats recover and become immune, many others remain carriers and continue to spread the virus. Various methods of treatment have been developed, including chemotherapy, blood transfusions, and the use of antibiotics to fight bacterial infections, but at this point treatment is not very effective and there is no cure.

### Is animal research on feline leukemia still needed?

Since the virus affects cats in unique ways, cats must be used for additional studies. A more effective vaccine needs to be developed and tested, and ways to improve the immune system of infected cats is needed to help them overcome the virus before illness develops. This research may also help us learn more about AIDS in humans.

**Michigan Society for Medical Research**  
P.O. Box 3237 • Ann Arbor, Michigan 48106-3237

tel 734.763.8029

fax 734.930.1568

email [mismr@umich.edu](mailto:mismr@umich.edu)

web [www.mismr.org](http://www.mismr.org)

