In the past, feline panleukopenia (FP) was a leading cause of death in cats. Today, it is an uncommon disease, due in large part to the availability and use of very effective vaccines.

Q:

What is feline panleukopenia?

Feline panleukopenia (FP) is a highly contagious viral disease of cats caused by the feline parvovirus. Over the years, FP has been known by a variety of names including feline distemper, feline infectious enteritis, cat fever and cat typhoid. Feline distemper should not be confused with canine distemper—although their names are similar, they are caused by different viruses.

The feline parvovirus infects and kills cells that are rapidly dividing, such as those in the bone marrow, intestines, and the developing fetus. Infected cats usually develop bloody diarrhea. Because red blood cells and white blood cells are produced in the bone marrow, infected cats develop anemia (due to loss of red blood cells) and are more likely to be infected with other illness (due to the loss of white blood cells, which play critical roles in the immune system). People cannot develop FP if they come in contact with an infected cat because the virus does not infect people.

Q: How can I tell if a cat has FP?

The signs of FP can vary and may be similar to other illnesses such as *Salmonella* or *Campylobacter* infection, pancreatitis, feline immunodeficiency virus (FIV) infection, or feline leukemia virus (FeLV) infection. Infected cats may even show signs that resemble those seen when a cat has been poisoned or has swallowed a foreign object.

The first visible signs an owner might notice include generalized depression, loss of appetite, high fever, lethargy, vomiting, severe diarrhea, nasal discharge, and dehydration. Sick cats may sit for long periods of time in front of their water bowls but not drink much water. Normally, the sickness may go on for three or four

days after the first fever. In some cats, the fever will come and go during the illness and abruptly fall to lower-than-normal levels shortly before death.

Cats are very good at hiding disease and by the time a cat displays the signs of illness, it may be severely ill. Therefore, if any abnormal behaviors or signs of illness are observed, it is important to have your cat examined by a veterinarian as soon as possible.



FP may be suspected based on a history of exposure to an infected cat, lack of vaccination, and the visible signs of illness. FP is confirmed when the feline parvovirus is found in the blood or stool.

How do cats get infected with the virus that causes FP?

Infection occurs when cats come in contact with the blood, urine, stool, nasal secretions, or even the fleas from infected cats. A cat can also become infected without ever coming in direct contact with an infected cat. Bedding, cages, food dishes and the hands or clothing of people who handle the infected cat may harbor the virus and transmit it to other cats. It is, therefore, very important to isolate infected cats. Any materials used on or for infected cats should not be used or allowed to come in contact with other cats, and people handling infected cats should practice proper hygiene to prevent spreading the infection.

The virus that causes FP is difficult to destroy and resistant to many disinfectants. At room temperatures, virus present in a cat's environment can still infect other cats for up to one year. Ideally, unvaccinated cats should not be allowed into an area where an infected cat has been — even if the area has been disinfected.

Pregnant female cats that are infected with the virus and become ill (even if they do not appear seriously ill) may give birth to kittens with severe brain damage. In most cases, if a cat recovers from FP, it will not infect other cats through direct contact.

Q: Which cats are susceptable to FP?

While cats of any age may be infected with the feline parvovirus that causes FP, young kittens, sick cats, and unvaccinated cats are most susceptible. It is most commonly seen in cats 3-5 months of age with about 75% of kittens less than 16 weeks of age likely to die if infected.

The virus has appeared in all parts of the United States and most countries of the world. Kennels, pet shops, animal shelters, unvaccinated feral cat colonies, and other areas where groups of cats are housed together appear to be the main reservoirs of FP. During the warm months, urban areas are likely to see outbreaks of FP because cats are more likely to come in contact with other cats.

Q: How is FP treated?

The likelihood of recovery from FP for infected kittens less than eight weeks old is poor. Older cats have a greater chance of survival if adequate treatment is provided early. Since there are no medications capable of killing the virus, treatment is limited to supporting the cat's health with medications and fluids until its own body and immune system can fight off the virus. Without such supportive care, up to 90% of cats with FP may die.

Once a cat is diagnosed with FP, treatment may be required to correct dehydration, provide nutrients, and prevent secondary

infection. If the cat survives for 48 hours, its chances for recovery are greatly improved. Once home, the area where the infected cat is kept should be warm, free of drafts, and very clean. Strict isolation from other cats in the home is necessary to prevent spread of the virus. Other cats that may have been in contact with the infected cat, or in contact with objects or people who were in close contact with the sick cat, should be carefully monitored for any visible signs of illness. Sadly, some cats may lose the will to live when they are very sick, so frequent petting, hand feeding, and good nursing care are essential to promote healing.

Q: How can FP be prevented?

Cats that survive an infection develop immunity that likely protects them for the rest of their lives. Mild cases that go unnoticed will also produce immunity from future infection.

It is also possible for kittens to receive temporary immunity through the transfer of antibodies in the colostrum — the first milk produced by the mother. How long this passive immunity protects the kittens from infection depends upon the levels of protective antibodies produced by the mother. It rarely lasts longer than 12 weeks.

"An ounce of prevention is worth a pound of cure" definitely rings true for FP—preventing infection is more effective than treating an infected cat. Today, there are vaccines that offer the best protection from feline parvovirus infection. The vaccines stimulate the cat's body to produce protective antibodies. Later, if the vaccinated cat comes in contact with an infected cat, its body will likely fight off the infection because of those same antibodies produced in response to the vaccine.

The vaccines are effective for prevention of FP but they cannot treat or cure an unvaccinated cat once it becomes ill. Vaccines must be given before the cat is exposed and infected. Most young kittens receive their first vaccination between six and eight weeks of age and follow-up vaccines are given until the kitten is around 16 weeks of age. Adult vaccination schedules vary with the age and health of the cat, as well as the risk of FP in the area. Cat owners should consult a veterinarian for advice on a vaccination schedule appropriate for their cats.





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