

Feline Infectious Peritonitis

Feline infectious peritonitis (FIP) is a disease caused by a coronavirus infection. FIP-producing strains are distinguished by their ability to invade and grow in certain white blood cells. The infected cells transport the virus throughout the cat's body. An intense inflammatory reaction occurs in the tissues where these virus-infected cells locate. It is this interaction between the body's own immune system and the virus that is responsible for the disease.

Infected cats shed coronavirus in their saliva and feces. Most cats become infected by inhaling or ingesting the virus, either by direct contact with an infected cat, or by contact with virus-contaminated surfaces like clothing, bedding, feeding bowls, or toys. Although the virus can survive for a number of weeks in the environment, it is rapidly inactivated by most household detergents and disinfectants. An inexpensive and effective disinfectant is one part of household bleach in thirty-two parts of water (4 ounces of bleach per gallon of water).

FIP and feline leukemia are caused by different viruses. Some cats that have FIP may also be infected by the feline leukemia virus, but the diseases are two separate entities.

Initial exposure to the FIP virus usually results in no obvious clinical disease, although some cats may experience a mild upper respiratory disease that is characterized by sneezing, watery eyes, and watery nasal discharge. Some cats may experience a mild intestinal disease. Most cats that undergo the primary infection completely recover, although some of them may become virus carriers. Only a small percentage of exposed cats develop the lethal disease: weeks, months, or perhaps years after primary infection.

The onset of clinical signs of lethal FIP may be sudden (especially in kittens), or the signs may gradually increase in severity over a period of weeks. Many cats have nonspecific signs such as intermittent inappetence, depression, rough hair coat, weight loss, and fever. The major forms of lethal FIP are effusive (wet) FIP, non-effusive (dry) FIP, and combinations of both.

The most characteristic sign of effusive FIP is the accumulation of fluid within the abdomen and/or chest. When fluid accumulation becomes excessive, it may become difficult for the cat to breathe normally.

The onset of non-effusive FIP is usually slower. Fluid accumulation is minimal, although weight loss, depression, anemia, and fever are almost always present.

In both forms, signs of kidney failure (increased water consumption and urination), liver failure (jaundice), pancreatic disease (vomiting, diarrhea, diabetes), neurologic disease (loss of balance, behavioral changes, paralysis, seizures), enteritis (vomiting, diarrhea), or eye disease (inflammation, blindness) may be seen in various combinations.

FIP is often a difficult disease to diagnose because each cat can display different signs that are similar to those of many other diseases. Young cats (less than two years of age), older cats (over ten years old), cats in poor physical condition, and cats undergoing concurrent infections or stress are more susceptible to FIP. It is a relatively uncommon disease in the general cat population, probably affecting fewer than one percent of the cats brought to a veterinarian's office for treatment. In multiple-cat populations such as some shelters and catteries the disease rate can be much higher, affecting up to 10 to 20 percent of the susceptible population over a period of several months.

Currently, FIP is considered to be a routinely fatal disease once a positive diagnosis has been made. Unfortunately, no cure yet exists. The basic aim of therapy is to provide supportive care and to alleviate the self-destroying inflammatory response of the disease. Some treatments may induce short-term remissions in a small percentage of patients. A combination of corticosteroids, cytotoxic drugs, and antibiotics with maintenance of nutrient and fluid intake may be helpful in some cases.

In multiple cat environments, keeping cats as healthy as possible and minimizing exposure to infectious agents lessens the likelihood of cats' developing FIP. Preventing overcrowding, keeping cats current on vaccinations, providing proper nutrition and adequate sanitation, and eliminating feline leukemia virus infections can be helpful in reducing the incidence of FIP groups of cats.

The first FIP vaccine was introduced in 1991. It is a temperature-sensitive, modified-live vaccine. The vaccine is licensed for intranasal vaccination of cats at 16 weeks of age, with boosters in 3 to 4 weeks, and then yearly. Once a cat is vaccinated, its serum may have a positive coronavirus antibody titer. There is controversy over the efficacy of the vaccine but overall it appears safe.

Once clinical signs appear, cats with effusive (wet) form of FIP will live a few days to a few weeks, although some adult cats may linger for six to eight months. Cats with the dry form of FIP usually die within a few weeks, but survival for up to a year or more is possible. Providing good nursing care and feeding a balanced, highly nutritious diet will make your cat more comfortable in the terminal stages of the disease. Your veterinarian may prescribe medications to reduce the discomfort associated with the disease or provide more-specific supportive therapy.