

# FELINE INFECTIOUS PERITONITIS

## About the Diagnosis

Feline infectious peritonitis (FIP) is an extremely serious viral disease that is contagious between cats but does not affect dogs, humans, or any other species. It is caused by a coronavirus, meaning that it is spread mainly through the digestive tract, and is contracted by cats when they are in contact with the feces (stool) or bodily fluids of infected cats. FIP is often fatal in cats, so identification of infected cats and prevention of contact with other cats that might contract the illness is important.

There are many coronaviruses which infect the gastrointestinal tracts of different animals, and they fall into two broad categories: enteric coronaviruses, which cause mild, brief signs of digestive upset and are relatively harmless, and mutated coronaviruses such as the FIP virus. An example in the first category, feline enteric coronavirus, is a virus that is commonly found in cats, is restricted to the gastrointestinal tract, and does not cause significant illness at all. By contrast, some variants, or strains, of this virus, such as feline infectious peritonitis virus, fall into the second category, do cause significant illness, and are responsible for FIP. These viral variants are able to travel out of the digestive tract, through the bloodstream, to other parts of the body where they may persist indefinitely.

FIP is a disease that most frequently appears in young cats from 6 months to 3 years old but can occur in cats of any age. Almost any part of the body may be affected, including the liver, kidneys, nervous system, and eyes.

While coronaviruses in general are highly contagious, the number of exposed cats that actually contract FIP is low. In most cats, the virus will be confined to the intestinal tract and will not cause disease. However, since there is no cure for FIP and the possibility of contagion exists, precautions such as separation of an infected cat from other cats are essential.

Affected cats may have stunted growth and fail to thrive. They will often be thin and have a rough, dull hair coat. Two different clinical forms of FIP are seen, and each form produces distinctive symptoms. The "wet" form causes fluid accumulation in the belly or the chest. The cat may develop a "pot-bellied" appearance or may begin to have difficulty breathing due to fluid accumulation around the lungs. Cats with the "dry" form of FIP may slowly lose weight and have appetite loss, lethargy, and unexplained fever. The onset of disease is usually very gradual with the dry form. Older cats almost always contract the dry form of FIP. This form of FIP can also cause a variety of nervous system symptoms, including seizures.

Diagnosis of FIP requires a thorough physical examination, blood tests, and x-rays and/or ultrasound in most cases. Even so, confirming the diagnosis of FIP is complicated by the fact that blood tests cannot distinguish between nonpathogenic feline enteric coronavirus and the strains that cause FIP. Many normal, healthy cats have been exposed to coronavirus and will test positive without having FIP. Therefore, advanced testing such as withdrawal of accumulated fluid from the chest or abdomen with a small needle for analysis may be necessary in some cases. Usually the symptoms of the wet form of FIP are distinctive enough that a diagnosis can be straightforward. However, positive diagnosis of the dry form of FIP can be a challenge. If there is a high suspicion that dry FIP is responsible for a cat's symptoms, surgery may be required to obtain biopsy samples from various organs. Tests run on the biopsy samples can confirm the diagnosis.

## Living with the Diagnosis

If your cat is diagnosed with FIP, you should prevent its coming in contact with new cats since the virus is potentially contagious. However, there is no need to isolate it from other cats in the household with which it has already been in contact. All of the household cats are likely to have already been exposed to the virus, so isolation will not prevent spread of the virus and may, in fact, have a negative impact on the health of the cats due to the additional stress it causes. Most cats exposed to the virus will not develop FIP.

## TREATMENT

There is no cure for FIP. Therefore, treatment is aimed at making the cat comfortable. The cat should be encouraged to eat, and stress should be avoided. Treatments with immunosuppressive drugs, such as corticosteroids, or immunomodulators are often used, but the benefits are limited. FIP is devastating and virtually every cat with confirmed FIP dies of the disease, although some can live for several months with supportive treatment.

## DOs

- Be sure that the diagnosis is accurate since FIP is devastating, and false results (false positive or false negative) are common. Specialists in veterinary internal medicine, who are experts in current diagnosis and treatment of this type of illness, are known as Diplomates of the American College of Veterinary Internal Medicine. They can provide a significant second opinion and are found in most large North American cities.
- If the diagnosis of FIP is confirmed and your cat is showing symptoms of illness such as loss of appetite, tempt your cat to eat with its favorite foods.
- Avoid stressful situations for the cat (unnecessary transport, extremes of temperature, etc.), which can allow the disease to worsen.
- Consult your veterinarian for information on other supportive treatments that may be appropriate.

## DON'Ts

- Do not allow your cat to roam outdoors or otherwise have contact with uninfected cats to prevent spread of the virus.

## When to Call Your Veterinarian

- If your cat will not eat or drink or becomes extremely debilitated.
- If your cat develops rapid, shallow breathing or begins to breathe through its mouth (panting like a dog), which is abnormal in cats (exceptions: when traveling or when the weather is hot, in which case even healthy cats may pant).

## Signs to Watch For

- Rapid, difficult breathing or open-mouth breathing. This can be a sign of fluid buildup around the lungs and is an emergency. Be careful to not stress your cat if it shows these signs, but rather telephone the veterinary hospital and proceed calmly.

## Additional Information

- Cats diagnosed with FIP usually live in, or have originated from, multiple-cat households (more than 5 cats) or breeding catteries. Breeders and owners of multiple cats should consult their veterinarian for more information on the control of FIP in these situations.
- A vaccine is available for FIP. However, it is not generally recommended for household cats and has not proved to be very effective in preventing the disease.