



## Clinical Symptoms of DRY FIP

### Dry FIP

**Dry FIP (Feline Infectious Peritonitis) often develops slowly and may not show clear signs immediately. It requires careful observation and combination of clinical signs for diagnosis. Here's what to look for:**

#### Periodic Fever:

**What to Observe:** The cat may experience recurring fevers that come and go, often without an apparent cause.

#### Extreme Tiredness (Lethargy):

**What to Observe:** The cat may appear unusually tired, with less energy and increased sleeping.

#### Loss of Appetite and Weight Loss:

**What to Observe:** The cat may refuse food and lose weight despite eating less.

#### Growth Retardation:

**What to Observe:** In younger cats, you may notice stunted growth or failure to gain weight appropriately.

#### Dry Coat:

**What to Observe:** The cat's fur may become dry and brittle, lacking its usual shine.

#### Granulomas:

**What to Observe:** Granulomas are small, inflamed areas that can form in various organs, such as the liver, kidneys, or intestines. They may cause swelling or discomfort in these areas.

#### Symptoms Not Responsive to Antibiotic Therapy:

**What to Observe:** Common symptoms that don't improve with standard antibiotic treatments.

### Diagnostic Clues

#### Blood Biochemistry:

Blood tests may show a high FCoV (Feline Coronavirus) titer of  $\geq 1:3200$ , which can be an indicator of FIP.

### Recognizing the STAGES OF Dry FIP

#### Early Stage:

Young cats ( $\leq 2$  years old) with periodic fever, lethargy, loss of appetite, weight loss, growth retardation, and dry coat. Ineffective antibiotic treatment raises suspicion of FIP. Some cases may also show diarrhea or constipation.

Bloodwork often shows leukocytosis, increased neutrophils, decreased lymphocytes, elevated serum total protein, hyperglobulinemia, hypoalbuminemia,  $A \leq 0.6$ .

Gradual formation of granulomas in various organs, causing swelling of liver, kidneys, testicles, enlarged intestinal lymph nodes, and extensive purulent peritonitis.

#### Mid Stage:

Symptoms worsen, including chronic non-regenerative anemia ( $HCT \leq 24\%$ ), jaundice, and golden yellow to dark yellow urine.

Eye lesions, primarily uveitis, leading to cloudy eyeballs, iris texture changes, and potential for white turbidity in the vitreous and yellow-white granulomatous nodules in blood vessels.

#### Mid-Late Stage:

Severe anemia ( $HCT \leq 16\%$ , timely blood transfusion recommended). Neurological symptoms such as nystagmus, resting tremor, rear limb weakness, bradykinesia, and postural instability may develop. FIP can cause aseptic meningitis when the virus penetrates the CNS.

#### Late Stage:

Symptoms include rigidity, confusion, incontinence, convulsions, tremor, paralysis, disorientation, and shock. Advanced disease often indicates a poor prognosis. Although some cats recover with treatment, there is a 30% recurrence rate after stopping medication.



## Clinical Symptoms of WET FIP

### Wet FIP

**leads to fluid buildup in the abdomen and chest. Identifying these symptoms early can help ensure timely veterinary care. Here's what to look out for:**

#### Swollen Abdomen:

What to Observe: The cat's abdomen may become noticeably swollen. Ultrasound or X-rays may show the presence of fluid (ascites).

#### Rapid Breathing:

What to Observe: The cat may breathe faster than usual. Ultrasound or X-rays may reveal fluid in the chest (pleural effusion).

#### Fluid Buildup:

What to Observe: Both ascites (fluid in the abdomen) and pleural effusion (fluid in the chest) can be present.

#### Common Symptoms

##### Loss of Appetite (Anorexia):

The cat may refuse to eat and show little interest in food.

Extreme Tiredness (Fatigue) and Sleepiness:

The cat may appear very tired and sleep more than usual.

##### Weight Loss:

Despite the swollen abdomen, the cat may lose weight.

##### Persistent Fever:

The cat may have a fever lasting more than four days (above 102.5°F).

##### High Coronavirus Titer:

Elevated levels of the virus may be detected in blood tests.

##### Non-Regenerative Anemia:

Low red blood cell count that does not improve with treatment.

##### Changes in White Blood Cells:

Increased absolute neutrophils (a type of white blood cell).

Decreased absolute lymphocytes (another type of white blood cell).

##### Protein Level Changes in Blood:

Decreased albumin (ALB), increased globulin (GLOB), and an A ratio of  $\leq 0.6$ .

##### Jaundice:

Yellowing of the skin, gums, or the whites of the eyes, with increased total bilirubin (TBIL).



# Clinical Symptoms of WET FIP

## WET FIP

### Fluid Analysis

Color of Fluid: Indicative of FIP:

Yellow, yellow-green, light yellow, deep yellow.

Less Indicative of FIP: Milk-white, blood-red.

### Tests:

#### Rivalta Test:

Positive for ascites, pleural effusion. A negative result can reasonably exclude FIP, but the test is subjective.

#### RT-PCR:

Positive results are highly indicative of FIPV, but the test has a 30% false negative rate. A negative result cannot exclude the disease, especially with serum, plasma, or stool samples.

## Recognizing the Stages of WET FIP

### Early Stage:

Young cats ( $\leq 2$  years old) with periodic fever, lethargy, loss of appetite, weight loss, growth retardation, and dry coat. Ineffective antibiotic treatment raises suspicion of FIP. Some cases may also show diarrhea or constipation.

Bloodwork often shows leukocytosis, increased neutrophils, decreased lymphocytes, elevated serum total protein, hyperglobulinemia, hypoalbuminemia,  $A \leq 0.6$ .

Ascites causes gradual abdominal growth and softer touch. Increased pleural effusion leads to faster breathing. Drainage may be necessary if breathing is affected.

### Mid Stage:

Symptoms worsen, including chronic non-regenerative anemia ( $HCT \leq 24\%$ ), hyperbilirubinemia, golden yellow to dark yellow urine, and increased ascites or pleural effusion causing difficulty breathing.

### Late Stage:

Severe anemia ( $HCT \leq 16\%$ , timely blood transfusion recommended). Cats may lose the ability to self-feed, walk unstably, and suffer from ataxia, severe icterus, and hemolytic anemia. Median survival for wet FIP is only 8 days. Early diagnosis and treatment are crucial to reversing symptoms and restoring quality of life.



## Clinical Symptoms of OcULAR (EYE) FIP

### **OcULAR FIP (EYE):**

Ocular FIP is a form of feline infectious peritonitis that affects a cat's eyes.

#### **Eye Inflammation (Uveitis):**

The colored part of the eye (iris) may look darker or change color.  
The eye may appear cloudy or bluish.

#### **Cloudy Eyes (Aqueous Flare):**

A hazy or cloudy appearance in the front part of the eye due to inflammation.

#### **White Spots on the Eye (Keratic Precipitates):**

Small white deposits may appear on the inner surface of the eye.

#### **Blood in the Eye (Hyphema):**

You might notice blood in the front part of the eye.

#### **Changes in Vision (Retinal Changes):**

Cats may experience vision problems or blindness due to damage at the back of the eye.

#### **Inflamed Retina (Chorioretinitis):**

The back part of the eye (retina) may be inflamed, causing visual impairment.

#### **Swelling of the Eye (Corneal Edema):**

The eye may appear swollen or cloudy.

#### **Pus in the Eye (Hypopyon):**

Pus may accumulate in the front part of the eye.

#### **Small Pupils (Miosis):**

The pupils may become smaller and not respond well to light.

#### **Increased Eye Pressure (Secondary Glaucoma):**

Due to inflammation, the pressure inside the eye may increase, causing pain.

#### **Eye Pain or Discomfort:**

Your cat may squint, rub its eyes, or show signs of discomfort around the eyes.



## Clinical Symptoms of NEUROLOGICAL FIP

### **Neurological Signs:**

Neurological FIP is a form of feline infectious peritonitis that affects a cat's nervous system.

#### **Tremors (Resting Tremor):**

Involuntary shaking or trembling, often noticed when the cat is at rest.

**Weakness in the Back Legs (Rear Limb Weakness):**

Difficulty walking or an unsteady gait, especially in the hind legs.

#### **Stiffness (Rigidity):**

The cat may appear stiff or have difficulty moving.

#### **Slow Movements (Bradykinesia):**

Movements may become slow and uncoordinated.

#### **Balance Issues (Postural Instability):**

The cat may have trouble maintaining balance and may fall over easily.

The cat may sway at the hips or walk as if drunk.

#### **Confusion and Disorientation:**

The cat may seem confused or disoriented, not recognizing familiar people or surroundings.

#### **Incontinence (Urine or Fecal Incontinence):**

The cat may lose control over its bladder or bowels.

#### **Seizures:**

The cat may experience convulsions or fits.

#### **Paralysis:**

Partial or complete loss of movement in certain parts of the body.

### **Unequal Pupil Size (Anisocoria):**

One pupil may be larger than the other, indicating a neurological issue.

### **Shock:**

In severe cases, the cat may go into shock, showing signs of extreme weakness or collapse.

### **Additional Symptoms to Look For Reluctance to Jump:**

The cat may avoid jumping up or down from furniture.

### **Leaning to One Side:**

The cat may lean or tilt its head to one side.

### **Severe Itching or Scratching (Attacking):**

The cat may excessively scratch or bite at its skin.

### **Stiff Tail:**

The tail may become stiff or less flexible.

### **Falling Down:**

The cat may fall over frequently.

### **Cross Stepping:**

The cat's legs may cross over each other when walking.

### **Staying Low to the Ground:**

The cat may crouch close to the ground when moving around.



## FIRST SIGNS -

What clinical signs does a cat infected with FIP develop? In cats that develop FIP, the first signs of illness may be very vague. Listlessness, lethargy, decreased or absent appetite, weight loss, and a fluctuating fever are commonly reported clinical signs.

1

### INITIAL PHASE

Common cold-like  
symptoms

2

### SECOND PHASE

Wobbly walk  
Abdominal swelling  
Weight loss

3

### FINAL PHASE

Shortness of breath  
Incontinence  
Paralysis

The rate of recovery decreases  
as the disease progresses.

Unfortunately the treatment cannot reverse any permanent organ damage in cats with advanced FIP and the treatment may not help if your cat's condition has been left for too long and have signs such as paralysis and organ shutdown

Today cat FIP  
is treatable

IF NOTICE ANY OF THESE SIGNS  
- PLEASE CONTACT US ASAP -  
\*THERE IS HOPE\*

# FIP in Cats Symptoms

The symptoms of FIP in cats can vary depending on the type of FIP. Wet FIP is the more common form and is characterized by fluid accumulation in the abdomen or chest. Symptoms of this form of FIP include weight loss, loss of appetite, vomiting, diarrhea, and difficulty breathing.

Some common symptoms of FIP in cats include:

- Fever
- Lethargy
- Loss of appetite
- Drastic weight loss
- Vomiting
- Diarrhea
- Difficulty in breathing
- Fluid buildup in the abdomen (Wet FIP)
- Jaundice
- Anemia

In certain conditions, late FIP treatment can lead to other symptoms, such as neurological symptoms (neurological FIP) or eye problems (ocular FIP).

Coronavirus infection usually has no signs. In some cases, however, signs can include the following:

- diarrhea
- vomiting
- stunted growth
- upper respiratory signs
- weight loss

This stage may last several days or months if severe.

The signs of feline infectious peritonitis vary depending on which organs are involved. Many organs, including the liver, kidneys, pancreas, CNS, and eyes, can be affected. The length of time between infection and mutation of the virus and development of signs varies between cats. Affected cats may be alert or depressed. Some eat with a normal or even increased appetite; others refuse to eat. Fever, weight loss, and/or jaundice may be noted.

Some cats have noticeable fluid build-up in the abdomen causing it to look distended. About one-third of cats with effusive disease have lung involvement and difficulty breathing. Fluid may also accumulate around the heart.

Cats without obvious fluid build-up usually have a history of vague illness. This includes repeated fever, malaise, weight loss, and occasionally organ failure (most often the kidneys or liver).

Involvement of the eyes and central nervous system is common and may occur either simultaneously or independently of other signs. When the eyes are affected, there may be bleeding or accumulation of pus in one or both eyes. Other ocular changes, including blindness, can also occur. The most common sign of nervous system involvement is poor coordination of muscles with slight paralysis progressing to generalized failure of muscle coordination. Convulsions (seizures), tremors, personality changes, and increased sensitivity to touch may also be seen.

## Signs of Feline Infectious Peritonitis

- Progressive distention of the abdomen due to fluid buildup
- Lung involvement and difficulty breathing
- Fever lasting 2 to 5 weeks
- Loss of appetite
- Weight loss
- Depression
- History of vague illness, including longterm fever, malaise, weight loss, and occasionally major organ system failure (kidneys, liver)
- Eye and central nervous system signs may occur simultaneously or independently

About 50% of all cats have signs related to involvement of abdominal organs (kidney, liver, spleen, pancreas, lymph nodes)

## FIP - Contagious or not ...

Feline infectious peritonitis is caused by a coronavirus that is unique to cats—**it is not contagious to people, dogs, or other species of animal**. This virus typically lives in the cat's intestinal system. It's spread through contact with feces in most cases, as infected cats shed the virus into litter boxes.

| FIV  | FelV  |
|--|---|
| Clinical Signs   |   |
| Fever and low white cell count<br>Ocular disease<br>Neurologic signs (behavior, ataxia, seizure)<br>Lymphoma<br>Upper respiratory infection, ocular infections   | Fever<br>Anemia – low red blood cell count<br>Low platelet counts, low white blood cells<br>Lymphoma<br>Chronic infections of skin, bladder, upper respiratory tract  |
| Disease Process  |   |
| Kittens & Geriatric cats exhibit clinical signs. The virus can become quiet but eventually signs reemerge, as the immune system becomes depleted cats develop secondary infection.   | Similarly this also has multiple phases where cats go into a phase of disease that becomes more difficult for them to fight off infections or other immune system challenges. Cats in the progressive phase typically die within 3 years.               |
| Housing  |   |
| FIV cats actually can live with their housemates as long as they <b><u>don't fight</u></b>   | FeLV cats usually have to be <b><u>isolated</u></b> from housemates.  |
| Testing  |   |
| All new cats and kittens at their first visit.<br>Cats that get into fights – especially if they fought the year before.<br>Outdoor cats or housemates of FIV infected cats should be tested annually.<br><u>Confirmatory tests:</u><br>Once a cat tests positive they are lifelong carriers of the virus. | All cats or kittens prior to introduction to the new home.<br>Prior to receiving their first vaccinations.<br>Sick cats<br><br><u>Confirmatory tests:</u><br>Secondary tests include IFA – which assess active infection and/or bone marrow involvement |
| Prevention   |   |
| Keeping cats indoors is the best way to keep <b><u>your cat and neighboring</u></b> cats healthy.<br>Vaccine although available is <b><u>not recommended</u></b> at this time.   | Keeping cats indoors.<br>Vaccination – Administered to kittens at 8-9 weeks of age with a second booster 3-4 weeks later.<br>Vaccine is boosted annually.   |