

Feline Coronavirus (FCoV) and Feline Infectious Peritonitis (FIP)



CATS PROTECTION
VETERINARY GUIDE 10



What is Feline Coronavirus or FCoV?

FCoV is a common and contagious virus which is passed in the faeces of cats. It is more commonly found in multi-cat households and does not affect other animals or people.

How does a cat catch FCoV?

FCoV is caught by inadvertently swallowing the virus, through contact with other cats, litter trays or soil where other cats have toileted. Exposure to faeces in the litter tray is the most common means of transmission. Forty per cent or more of cats will be infected with the virus at some time in their lives and most owners will be unaware of it. Nearly every cat that encounters the virus will become infected and most will remain healthy and the majority will clear the virus themselves.

What problems does FCoV cause?

Most cats do not display any sign of being infected with FCoV, although some cats get diarrhoea for a few days. These cats tend to shed the virus in their faeces for a few months and remain healthy.

In a very small percentage of cats, the virus mutates and causes a fatal disease called feline infectious peritonitis (FIP). This is more likely to occur in multi-cat environments and can take weeks, months or occasionally years after the initial infection with FCoV to develop.

If a cat clears FCoV and doesn't develop FIP, is it then immune?

Unfortunately not, a cat can become re-infected with FCoV again at any time and can be susceptible to it mutating and causing FIP.

Why does FCoV change in some cats?

It is not known exactly why the virus changes to cause FIP in some cats, but a number of factors seem to increase its likelihood:

- stress eg moving home, new pets in the house, too many pets in the house, being placed in a boarding cattery
- age – young and old cats are more susceptible
- a poor immune system or concurrent disease
- possible genetic factors, although it is extremely rare following a case of FIP for all infected related cats eg littermates, to develop FIP

It is thought some strains of FCoV may mutate more easily than others and studies to find out more about this complex virus are ongoing.

What is FIP?

FIP is an uncommon, fatal, viral disease caused by an infection from mutated FCoV. The disease is most common in young cats aged six weeks to two years old. Cats living with other felines are also more likely to develop the disease.

What are the signs of FIP?

There are no unique signs of FIP and they do vary. All cats with FIP are unwell and most will have a fever, appear lethargic and go off their food. Two types of disease exist, although there can be a crossover between the two:

- wet FIP – fluid builds up in the abdomen, causing it to appear swollen. This can also happen in the chest which causes breathing difficulties

- dry FIP – minimal fluid builds up, but cats may appear dull with a poor appetite and/or a high temperature. They may lose weight, have problems with their vision, behaviour or nervous system and can develop jaundice

How is FIP diagnosed?

FIP is not easy to diagnose. There is no single test that can be performed on sick cats that will always confirm or rule out FIP. A combination of history, physical findings, blood tests and testing the fluid from the chest or abdomen can give an indication, but the only definitive way to diagnose FIP is through biopsies taken. Sadly, the disease is often only confirmed at post-mortem.

There is also no test available to predict whether a cat with FCoV will develop FIP. A blood test can detect antibodies to FCoV, but this can be misleading as a high level of antibodies only means that the cat has been exposed to the virus at some point. It does not indicate whether the cat is shedding FCoV – ie whether the cat poses a risk to other cats – or whether the cat will go on to develop FIP. In some cases, cats that develop FIP actually have no antibodies at all. Special faecal tests can indicate if cat is shedding FCoV, but again this does not indicate whether a cat will develop FIP and a negative result cannot rule out FCoV infection.

Is there any treatment for FIP?

There is no cure for FIP. Treatment may be given to relieve the symptoms but sadly, most affected cats have to be euthanased.

Can FIP be prevented?

Unfortunately, there is no vaccine in the UK to protect against FCoV infection or FIP.

Once a cat is infected with FCoV there is no way of knowing whether it will develop FIP or not.

Fewer than one in 10 cats infected with FCoV will go on to develop FIP. However, should you suspect that your cat has been exposed to FCoV, minimising stress may help to reduce the risk of FIP developing. To do this, avoid overcrowding, introducing a new pet or putting your cat into a cattery. Where possible, avoid lots of stressful events happening together eg worming, vaccination and neutering.

It may also help to remove faeces as soon as possible after they are passed, keep your cat's food bowls away from their litter tray and to disinfect the litter tray at least twice a week.

How long does the virus survive in the environment?

Outdoors, the virus can usually only survive for hours or days. Indoors, in dried-up cat litter, it can survive for up to seven weeks. It is killed by most disinfectants but ensure you use a disinfectant that is safe for felines because some household products are toxic for cats.

I already have a cat and I'm thinking of getting another, but am worried a new cat may introduce FCoV into the household

When acquiring any new cat, there is always a chance that it will be infected with FCoV – around 40 per cent of cats may be infected at some time in their lives. However, don't forget your

existing cat may also already be infected as the virus is very common and many infected cats appear to be healthy – or they may pick up the virus in the future.

Cats that are over two years of age are less likely to develop FIP. It is rare for a resident cat to develop FIP after the introduction of a new cat. In fact, if any of them develop FIP it is more likely to be the new cat which is affected – perhaps due to the stress following a change of environment. Obviously this would only happen if FCoV is already present in the resident or new cat. Integrating new cats carefully is always important, to minimise stress and ensure a harmonious household. See Cats Protection's *Essential Guide: Welcome home*.

One of my cats has been diagnosed with FIP, should I isolate them from my other cats?

No, not in terms of protecting your other cats from FCoV infection. It is highly likely that your other felines will already have been infected with FCoV, but they are no more at risk of developing FIP. It may be helpful to minimise stress and ensure good litter tray hygiene. However with regard to your cat with FIP, speak with your vet about whether some time on its own would be beneficial.

My cat died of FIP, when can I get another cat?

If it was your only cat, it is probably safe to get another cat six weeks after your cat died. Ensure you disinfect the litter tray, food and water bowls and surrounding areas with diluted bleach before rinsing thoroughly.

If you already have other cats, they are likely to be infected with FCoV and therefore could infect a new cat coming in. Speak to your vet about the best time to get another cat. Some vets may recommend blood or faeces tests and waiting until antibody levels have reduced, or virus shedding stops in your current cats – this can take months or years. Also, bear in mind that any new cat may also already be infected with FCoV so your vet may suggest testing the new cat for high antibody levels.

Unfortunately, there is no generally agreed practical and effective scheme for achieving control of FIP in multi-cat environments, but further discussion can be found in the FIP policy statement on The Cat Group website at www.thecatgroup.org.uk The Cat Group is a group of professional organisations dedicated to feline welfare and includes Cats Protection, British Small Animal Veterinary Association, International Society for Feline Medicine, RSPCA and others.

In summary:

- FCoV is common
- FCoV only leads to FIP in a small percentage of cats
- cats can pick up FCoV from any other infected cats and their toileting sites
- taking measures to minimise stress is important
- good hygiene measures and avoiding overcrowding can help cats to eliminate the virus

Learn more about your cat online!

Take a look at our free interactive tool to help you understand cats' origins and their behaviour within our homes. <http://learnonline.cats.org.uk/content/ufo>

ESSENTIAL GUIDES

- 1 Caring for your cat 84001
- 2 Welcome home 84002
- 3 Moving house 84003
- 4 Feeding and obesity 84004
- 5 Keeping your cat safe 84005
- 6 Neutering – family planning for felines 84006
- 7 When to let go 84007
- 8 Microchipping 84008
- 9 Understanding your cat's behaviour 84009
- 10 Managing your cat's behaviour 84010
- 11 Cats living together 84011
- 12 Indoor and outdoor cats 84012
- 13 Cats and the law 84013
- 14 Cats and people 84014
- 15 Caring for your kitten 84015
- 16 Elderly cats 84016
- 17 Feral cats 84017
- 18 Pregnant cats, birth and care of young kittens 84018

VETERINARY GUIDES

- 1 Arthritis 83201
- 2 Feline Lower Urinary Tract Disease (FLUTD) 83202
- 3 Diabetes 83203
- 4 Itchy cats and skin disorders 83204
- 5 Feline Parvovirus (FPV) 83205
- 6 Kidney or renal disease 83206
- 7 Cats with disabilities 83207
- 8 Hypertension 83208
- 9 Feline Immunodeficiency Virus (FIV) and Feline Leukaemia Virus (FeLV) 83209
- 10 Feline Coronavirus (FCoV) and Feline Infectious Peritonitis (FIP) 83210
- 11 Heart murmurs and heart disease 83211
- 12 Hyperthyroidism 83212
- 13 Feline asthma 83213
- 14 Teeth and oral health 83214
- 15 Fleas and other parasites 83215
- 16 Cat flu 83216
- 17 Infectious disease and vaccination 83217
- 18 Digestive disorders – vomiting and diarrhoea 83218
- 19 You and your vet 83219
- 20 Cats and pregnant women – Toxoplasmosis 83220



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Reg Charity 203644 (England and Wales) and SC037711 (Scotland)

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