

A word about feline coronavirus amid the Covid-19 pandemic



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The Covid-19 pandemic has raised questions about the potential role of cats and other companion animals in the transmission of the SARS-CoV-2 virus which causes Covid-19. Thankfully, **the evidence strongly indicates that pet animals are NOT involved in the pandemic.** Feline coronavirus, which causes enteric infection and FIP in cats, belongs to a different coronavirus family than the Covid-19 virus and is effectively unrelated.

During the Covid-19 pandemic, naturally occurring SARS-CoV-2 infections have been reported in cats (domestic and non-domestic), dogs, and farmed mink. Some cats and dogs of human Covid-19 patients have tested positive. At this time the significance of SARS-CoV-2 as a feline or canine pathogen is unknown as cats and dogs with reported infections have apparently recovered and there has been no evidence of transmission occurring between cats or dogs in the field. Extensive and most up-to-date information on the role of SARS-CoV-2 in animals, can be found at: https://www.oie.int/scientific-expertise/specific-information-and-recommendations/questions-and-answers-on-2019novel-coronavirus/

*** It is extremely important to emphasize that the current Covid-19 pandemic is being sustained through human-to- human transmission of SARS-CoV-2.

Coronaviruses (CoVs) are enveloped, positive-sense, single-stranded RNA viruses. Coronaviruses in general are ubiquitous in the environment. You may recognize the names SARS (Severe Acute Respiratory Syndrome) and MERS (Middle Eastern Respiratory Syndrome) both diseases are caused by coronaviruses.

Feline Infectious Peritonitis (FIP) is caused by infection with feline coronavirus (FCoV). The virus may be genetically classified into two genotypes of FCoV (FCoV I and FCoV II) both genotypes have the ability to cause FIP. FCoV I genotype has been estimated to be responsible for approximately 80% to 95% of FCoV infections in the field.

Very important to keep in mind: **FCoV does NOT infect humans.** Commonly coronaviruses are host specific, only infecting closely related species. FCoV is genetically similar to the canine coronavirus and it has been postulated that FCoV II originated from a double recombination event involving FCoV I and canine coronavirus I (CCoV).

FCoV transmission is fecal-oral, primarily through sharing litter trays, and from cat litter fomites. Virus transmission is mainly indirect. Infected cats shed the virus in their feces from about 2-3 days post infection. FCoV Type I shedding persist for weeks to months. It is estimated that about 13% of cats infected with FCoV Type I become persistently infected (carrier cats). The duration of FCoV Type II shedding is unknown, but based on experimental infections, it is likely about 2 weeks.

Most cats who become infected with FCoV do NOT develop FIP. Sadly, and estimated 5% - 10% of infected cats at one point in their lives will develop FIP. Incidence is higher in kittens with undeveloped immune system. Kittens are exposed to infection when maternally derived antibody wanes between 5-7 weeks of age. The vast majority of cats who develop FIP do so within the first 18 months post-infection, and by 36 months post-infection, there is only a 5% chance of the disease developing. Therefore, in order to reach a proper diagnosis, it is not only important to establish that the cat could have become infected, but also if the opportunity to become infected with FCoV occurred within the previous 3 years.

Seroconversion (the time period during which a specific antibody develops and becomes detectable in the blood) occurs at 18-21 days post-infection. The presence of FCoV antibodies indicates **ONLY** that the cat has been infected with FCoV, **NOT** that the cat has FIP *nor* that for certain the cat will develop FIP. About 70% of FCoV infection is transient, and it is estimated that 1% - 3% of cats are resistant to feline coronavirus.

On a closing note, Feline Infectious Peritonitis (FIP) is an almost always fatal infectious inflammatory disease of cats. **FIP** is a progressive **disease** which is caused by **FCoV** (**virus**). The disease (FIP) it is **NOT** contagious whilst FCoV infection is widespread in the feline population. A cat must have had the opportunity to become infected with FCoV for FIP to develop. In other words, if you can prevent FCoV infection then you prevent FIP. Quite simple: **NO FCoV = NO FIP!**

Want to learn more about feline coronavirus (FCoV). Visit: www.endfip.com/etiology/

EndFIP® has a vision: every cat a healthy cat. EndFIP® is committed to impart worldwide awareness and understanding of feline coronavirus and we will continue to encourage people to respect the seriousness of FCoV infection and inspire them to create lasting solutions to prevent feline coronavirus (FCoV) infection in multi-cat environments.



"There is nothing so patient, in this world or any other, as a virus searching for a host." – *Mira Grant*



