



## Professor Wills' Summer Course



EndFIP® has a vision: **every cat a healthy cat** and our ultimate goal is that one day, no one will have to go through the pain of losing their beloved cat to a disease that has claimed so many for so long.

All of us at EndFIP® truly believes: **prevention is better than cure** and we know education and awareness are the best weapons we have in the battle against Feline Infectious Peritonitis.

Before I re-start my “FIP Awareness Fridays” educational series on the Luca Fund for FIP Research page: <https://www.facebook.com/LucaFund/>, I was asked by my bosses at EndFIP® to release some purrrty tables showing the different protocols to implement to keep kittens safe, not just from FCoV, but also from other infectious diseases, while in your care. I assumed that you consider me to be a charming Purrrfessor but like any other cat, I am also quite the germaphobe. We all like clean, nice-smelling litter boxes. These tables will help you keep litter boxes up to our standards.

Let's not forget FIP is an unusual consequence - aberrant immune response - to infection with Feline Coronavirus (FCoV). Feline coronavirus (FCoV) is shed in the feces. FCoV infection occurs when cats ingest (or inhale) the virus. FCoV is a very contagious virus and it only takes a tiny speck of cat litter dust from a litter tray, previously used by an infected cat, for the virus to spread. Therefore, exposure to feces in litter boxes is the most common mode of infection.

FCoV is a relatively uncommon virus in pet cats allowed access to the outdoors and kept in households of one or two cats, but in situations where there are a lot of cats (i.e. breeding catteries, rescue shelters, hoarding situations, etc.) FCoV is endemic, infecting almost all of the corresponding cat population.

All of us at EndFIP® realized that every breeding cattery, rescue shelter or private home have its own set of challenges, logistics and resources. With that in mind, please use these protocol(s) as a guideline and adapt it to better fit your specific situation. In some instances, due to financial constraints, very few of the recommended strategies can be feasibly implemented but, at a minimum detailed hygiene practices must be followed.

As always, if you have a specific question or would like me to tackle a particular FCoV/FIP related matter, please send an email to: [reachus@endfip.com](mailto:reachus@endfip.com) and don't forget to write on the subject line “Attn: Professor Wills” so your email gets routed to the proper meowmber of our pawsome team.



Paws down... NO FCoV = NO FIP!

*Professor Wills*



# Ideal protocol for minimizing FCoV introduction or spread



**Breeding  
Catteries**

**Rescue  
Shelters**



- **Reduce the number of cats in any area**
  - In rescue facilities cats should be kept singly (if not possible – not more than 2 cats per cage)
  - Cats should be kept in small groups according to their antibody or virus excretion status
    - Antibody or virus negative cats together
    - Antibody or virus positive cats together
- **Prevention of kitten infection**
  - Rescuers or owners of pregnant cats should follow the “early weaning and isolation” protocol outlined below
- **Reducing fecal contamination of the environment**
  - Have adequate number of litter trays (1 tray per 1-2 cats)
  - Have adequate number of scoopers (1 x each tray)
  - Litter trays should be de-clumped at least daily (using its own scooper)
  - Use non-tracking litter
  - Remove all litter and disinfect litter trays at least once a week
  - Place litter trays away from food dishes
  - Wash food and water dishes in hot water (ideally in dishwasher hot cycle – 140F / 60C)
  - Wash bedding in hot water (140F / 60C)
  - Vacuum around litter trays regularly
  - Clip fur off hindquarters of long-hair cats
  - Disinfect pens between occupants using 1:32 dilution of sodium hypochlorite (household bleach) and hot water
  - Allow pens to lie empty (if possible)
  - Vacuum floors diligently and clean with cat friendly disinfectant and steam clean (if possible)
  - In rescue shelters, please train your personnel and/or volunteers to use disposable gloves and change them regularly (every time they move from cleaning one pen to another)
  - In rescue shelters, please train your volunteers to notify the employee in charge of the cat facility if any signs of disease are noted in the cats
  - Please isolate sick cats to prevent spread of infection (not just FCoV)

Want to learn more about FCoV transmission.

Visit: <http://www.endfip.com/virus-transmission/>

# Ideal protocol for prevention of FCoV infection in kittens

## Breeding Catteries | Rescue Shelters | Private Homes



**Kittens are born FCoV free. Help them have the long and healthy life they deserve.**

Feline coronavirus (FCoV) does not cross the placenta to the unborn kitten. Kittens are protected from FCoV infection by antibodies they receive in their mother's milk, when these antibodies wane at around 5-7 weeks of age, the kittens become susceptible to FCoV infection and the consequent risk of FIP.

Do not invite pain and heartache into theirs and your life.

FIP doesn't discriminate and it is merciless. Prevent kittens from being infected by FCoV.

- **Prepare kitten pens/nesting areas**

- In shelters or rescue groups, disinfect pens between occupants using 1:32 dilution of sodium hypochlorite (household bleach) and hot water
- In breeding catteries or family homes, the queen will seek a cozy and quiet space to give birth. You can help her create this area by providing her with a freshly cleaned, towel-lined box or tub and place it in a quiet, dark room. Please clean floors and surfaces using the above mentioned 1:32 dilution of sodium hypochlorite and hot water.
- Vacuum diligently, removing any microscopic dust sized particles of infected cat litter
- Color code and dedicate litter trays, food and water bowls to kitten section and disinfect frequently with sodium hypochlorite (1:32 dilution – meaning 1 cup of bleach and 31 cups of hot water). Please make sure to rinse dishes thoroughly in hot water upon disinfecting
- Provide nice, clean, newly washed bedding, avoiding any type of chemical smells

- **Practice barrier nursing**

- Deal with the kitten section before tending other cats; meaning, deal with the least infected area of the environment and gradually move up to the most infected area (i.e. FCoV shedding cats)
- Clean hands with disinfectant before going into the kitten section
- Have shoes and coveralls (clothes) dedicated to the kitten section
- Very large shelters should have disinfectant foot baths between each major area

- **Early weaning and isolation of kitten**

- Test queen for FCoV antibodies either before or after kitting
- If queen's antibodies titer is greater than zero, the kittens should be removed to another clean pen when they are 5-6 weeks old, or at least keep the queen's litter tray out of the kittens' reach
- If the queen has an antibody titer of zero (FCoV free), she can remain with the kittens until they are older
- Keep kittens isolated from any other FCoV infected cat(s)
- At 10 weeks of age, test kittens for FCoV antibodies



## Basic recommendations to prevent FCoV transmission

### General Public

- Have a least one litter tray for each cat that you have (ideally one per each cat plus one more)
- Place litter trays as far away from food and water as possible
- De-clump litter trays at least once per day (ideally twice or more)
- Make it as easy as possible for yourself to clean the litter trays as often as possible (site litter trays in places which you frequent throughout your day)
- Use a non-tracking (clumping) cat litter
- Use a dirt trapper mat beside the litter tray
- Vacuum frequently (at least once a day – ideally keep a hand held vacuum close to the litter trays and vacuum that area as needed)
- Sterilize litter trays with steam or boiling water and disinfectant at least once a week (ideally a mixture of household bleach and hot water in a 1:32 solution. Other options include steam and surgical spirits. Please make sure to avoid any disinfectant containing phenol which is toxic to cats - most pine-based disinfectant contain phenol.
- Trim the hair of back legs and tail (trim the “trousers” of long-haired cats to reduce the chances of feces getting trapped on them).



EndFIP®: A vision and a mission

- Bring awareness
- Raise funds for research
- Eradicate FCoV and end FIP

Help us accomplish our goals. Your donation is both needed and appreciated. The Luca Fund for FIP Research is committed to exclusively support research that does not use laboratory cats and does not conduct experimental infection of healthy cats with a deadly virus. Help us end FIP, so that one day, no one will have to go through the pain of losing their cherished cat to a disease that has claimed so many for so long.



The Luca Fund for FIP Research is part of the global vision of the EndFIP® project. Your donation to the Luca Fund will be applied to studies conducted at the University of Glasgow School of Veterinary Medicine. The Luca Fund for FIP research is a special fund of the American Alumni of the University of Glasgow established in 2018 to accept tax-deductible donations for Feline Infectious Peritonitis research. AAGU has been recognized by the IRS as a section 501(c) (3) charitable organization. All donations to AAGU are deductible as charitable contributions to the full extent permitted by law.



[www.endfip.com](http://www.endfip.com)

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