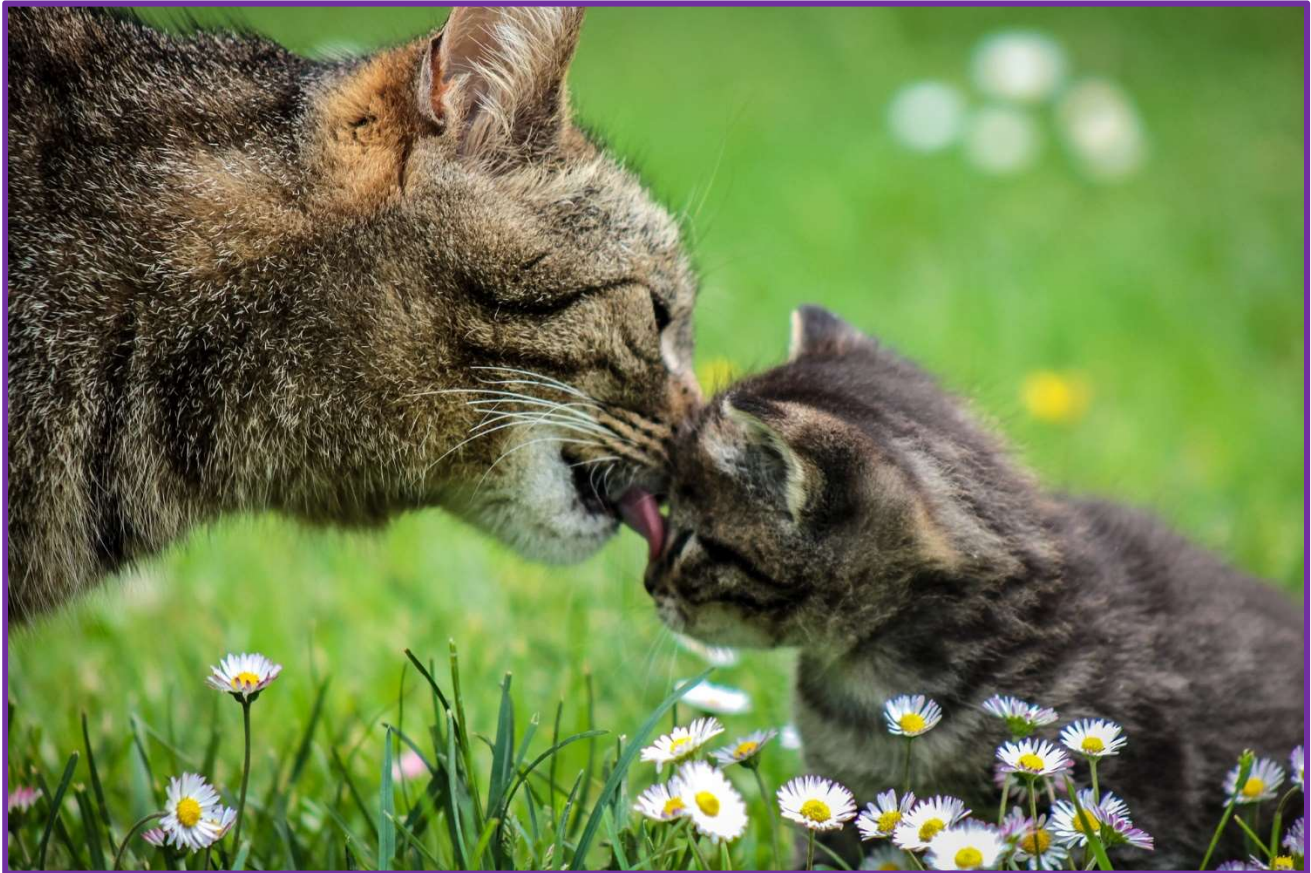




Mother's Day Newsletter



“A mother's love endures through all.”

Washington Irving

Mother's Day is a holiday celebrated annually as a tribute to all mothers and motherhood. It is celebrated in more than 150 countries around the world, although at different dates. Many countries, including the United States, Canada and several European countries, celebrate Mother's Day on the second Sunday of May. It is worthwhile to note, most of the Mother's Day dates around the world fall in May or in March and coincide with the beginning of kitten season.

Kitten season begins in early spring and runs through fall. It is the annual, high-breeding period when babies are born to cats who have not yet been spayed or neutered. As we get ready to celebrate Mother's Day, there are tons of mother cats out there raising their litters. In this newsletter, EndFIP® wants to share some interesting facts that will make you admire these fluffy mommies even more. We will also share important information on how to prevent kittens from becoming infected with feline coronavirus (FCoV), which is the underlying cause of Feline Infectious Peritonitis (FIP).

What is Feline Infectious Peritonitis?

Feline Infectious Peritonitis (FIP) is a devastating viral disease of cats that occurs worldwide and can affect many systems of the body. It is a progressive disease which carries a high mortality rate. FIP affects both wild and domestic cats and may be the leading infectious cause of death in cats.

In 1963, American veterinarian Jean Holzworth, first described a peritonitis in cats that caused the abdominal cavity to fill up with fluid. The condition appeared to be infectious, hence the name Feline Infectious Peritonitis (FIP). Within a few years it was recognized that the cause of the disease was a virus, a coronavirus. Feline coronavirus (FCoV) is undoubtedly one of the most poorly understood feline viruses and the disease it causes (FIP) is unquestionably the most feared disease in any multi-cat environment and the most shattering diagnosis for a pet parent to come to terms with.

Most cats infected with FCoV never develop FIP. However, for reasons that we don't yet fully understand, instead of clearing FCoV infection, an unfortunate few cats develop the disease.

Some Fascinating Facts About Mommy Cats

A mother cat is often called a “queen” and she can have kittens from different fathers. Her mating period can last for many days and during that time she can mate with several males. This can account for litters of kittens that all look quite different.



A queen can deliver kittens days apart and they tend to purr during labor as a self-relaxation technique. The average litter size is between 1 and 9 kittens. Each kitten has its own amniotic sack and umbilical cord. As soon as the babies are born, these tough mommy kitties lick the kittens to remove the amniotic sacs from around their faces and bodies. She will also chew through the umbilical cords and eat the placentas.

Felines are wonderful mothers and they are very good at taking care of themselves after

they've given birth. The queen will groom herself frequently and she doesn't usually start eating or drinking until about 24 hours after she has given birth as she will be hesitant to leave her kittens.

Newborn kittens typically nurse within the first two hours after birth, and they must eat within the first 24 hours. Newborns can't see at all or hear very well, they need to use their instincts to find their mother's milk, which fortunately they can smell. If one of her babies is having trouble finding the nipple, this wonderful mommy will usually pull the kitten toward her.

The queen is a very busy mom during the early days. In addition to grooming herself, she grooms her kittens frequently. Licking their abdomens and anuses encourages the babies to eliminate waste which she eats in her efforts to keep her nesting area clean.

When the kittens are about three weeks old, these amazing mothers begin socializing their babies by encouraging them to walk and move around. She will have a special noise, know as a “chirr” or “chirrup”, which is unique to each mommy cat, as she calls those that have strayed too far and her kittens can tell the difference.

At this time the queen will show her kittens how to use a litter box. She will begin the weaning process around four weeks, but it can last until the babies are 12 weeks old. Queens quickly come back into heat after giving birth, even before their kittens are weaned so in most instances, after 8 weeks she begins to spend more time solo and naturally ends the relationship with her kittens.



Keeping Kittens Safe from FCoV Infection

Feline coronavirus (FCoV) does not cross the placenta to the unborn kitten. Kittens are born FCoV free and 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 attendant risk of FIP.



Below is a detailed and ideal protocol to implement to keep kittens safe, not just from FCoV, but also from other infectious diseases, while in your care. Every shelter or rescue organization, breeding cattery or family home has its own set of challenges, logistics and resources. Please use this protocol 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.

Ideal protocol for prevention of FCoV infection in kittens

- 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 home, 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. known 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



It is inadvisable to FCoV antibody test kittens younger than 10 weeks old: kittens under 10 weeks of age may be infected but some are too young to have produced antibodies of their own.

Most kittens can make antibodies by 10 weeks of age, so 10-16 weeks is the best time to test. Very young kittens may give a positive result not because they are infected, but because they have antibodies from their mother's milk.

Prevention of FIP in Multi-Cat Environments

The single best way to prevent FIP is to prevent cats becoming infected with feline coronavirus. FCoV infection occurs via the fecal-oral route. FIP is a major problem in multi-cat environments, especially in shelters and breeding catteries thus an understanding of feline coronavirus (FCoV) shedding and rigorous hygiene protocols are the most effective ways to prevent this disease. Stress reduction is also an important factor, since the development of FIP is often preceded by a stressful episode in the cat's life.



The main source of virus is the feces of infected cats and infection is by accidental ingestion of such feces. FCoV is also very readily spread by fomite transmission. Feline coronavirus is a fragile virus, surviving a few days outdoors, but can survive up to 7 weeks in dried up feces in cat litter particles.

In most instances, it is unlikely that cats could become infected by directly contacting an FCoV infected cat, even by close contact, such as fighting, mutual grooming or sharing food bowls.

However, FCoV is occasionally (rarely) shed in the saliva for a few hours early in infection, so in situations such as boarding catteries or rescue shelters, where there may be a lot of newly infected cats, care must be taken not to transmit virus via contaminated food bowls or inhaling sneezed droplets.

FCoV is a very contagious virus, infecting nearly all cats who encounter it, the second major route of infection is the unintentional exposure of uninfected cats to tiny particles of infected feces on people's shoes or clothing, hands, poop scoops, etc. The infected cat likely swallows the virus when grooming, or when tiny particles of feces contaminate their food, it is for this reason that using a non-tracking litter and keeping food bowls in different rooms is highly recommended.



General Recommendations to Prevent FCoV Transmission



- 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).

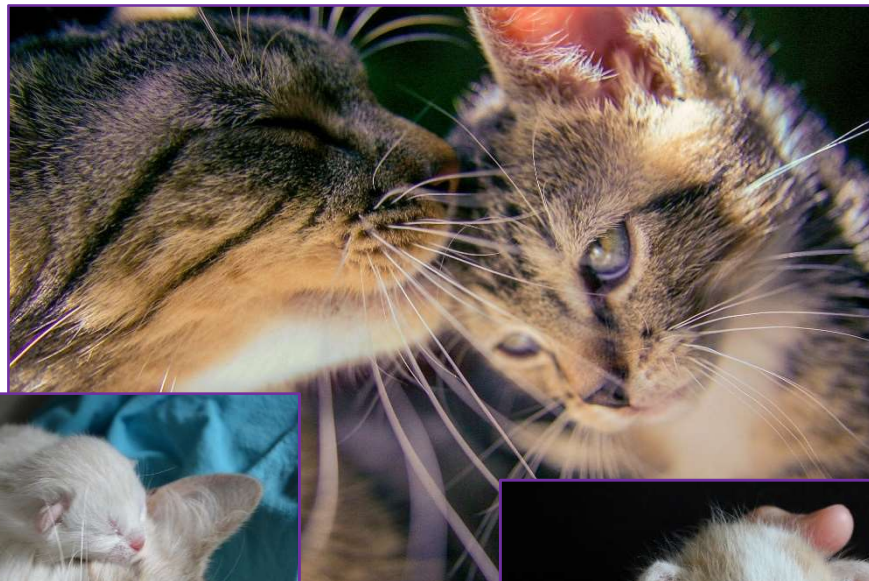


On a closing note, with Mother's Day just around the corner, all of us at EndFIP® would like to take a moment to recognize and praise the wonderful women who are foster mommies to orphaned kittens. We thank you for being there when no one else could. We thank you for holding them and comforting them. We thank you for putting their hunger before your own. We thank you for the sleepless nights and early mornings.

These kittens' starts in life were rough. You saw them at the hardest and you never gave up on them. In selfless love you took these babies into your home. From the streets came a scared, sometime sick, needy furry soul, for whom you cared for - for several weeks. Your role as foster mom is loving deeply and letting go. Because of you, these kittens were well prepared to thrive in their furever homes. EndFIP® does not for a minute take lightly the sacrifice you made by loving them.



A Very Happy Mother's Day to all the Moms!



We are honored you decided to join the EndFIP® community. EndFIP® has a vision: every cat a healthy cat. We are 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.



We hope you enjoyed this newsletter and will give us your feedback, which is truly a gift that help us improve every day. We are available at: reachus@endfip.com

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/donate

www.LucaFundforFIP.com

