Dr. Mike Paul, DVM

Mike has more than 35 years of experience in companion animal veterinary practice and is a valued member of IDEXX's Pet Health Network team since 2013.

Infectious diseases are those caused by some sort of organism like a virus, bacteria, parasite, etc. Many of these infections have decreased in frequency over the years, but many of them are also highly contagious and potentially fatal; therefore, we must keep them on our radar screen. Probably, none should be taken more seriously by cat guardians than those caused by two, specific submicroscopic organisms:

- Feline leukemia virus (FeLV)
- Feline immunodeficiency virus (FIV)

Other big, bad infectious diseases include FIP, feline heartworm and feline distemper.

To see which disease are the most common in your zip code, check out the infectious disease maps here >>>

What makes FIV and FeLV so big and bad?

Either one of these viral diseases, if undetected, is capable of causing a cat's premature death. To make matters worse, FeLV and FIV infections are by no means unusual. According to *Cornell University*, "Recent estimates indicate that two percent to four percent of the 83 million or so cats in the U.S. harbor one or both of these two viruses."

Why should you have your cat tested for FIV and FeLV?

Early detection will help you maintain the health of your own cat and also allow you to prevent spreading infection to other cats. The American Association of Feline Practitioners recommends that, "All cats should be tested at appropriate intervals based on risk assessment," and has published guidelines for retrovirus testing and management.

When should you test for FeLV and FIV?

Based on those AAFP guidelines, you should test:

- If your cat has never been tested before.
- If your cat is sick, even if she tested free of infection in the past. (Subsequent exposure can't be ruled out.)
- If your cat is newly adopted (whether or not she will be entering a household with other cats).
- If your cat has recently been exposed to an infected cat.
- If your cat is exposed to cats that may be infected (for example, if your cat goes outdoors unsupervised or lives with other cats that might be infected). Your veterinarian may suggest testing periodically (yearly) as long as your cat is exposed to potentially infected cats.
- If you're considering vaccinating with the FeLV or FIV vaccine.

What about testing kittens??

All kittens should be tested and vaccinated against FeLV, as recommended by the American Association of Feline Practitioners. Ask your veterinarian about additional boosters.

In the case of FeLV, there is no age requirement for this test; it can be done at any time. The test does require a few drops of blood. And it can detect a virus in kittens just 4-5 weeks old. Kittens that test negative for FIV antibodies are likely not infected, but it's ideal to retest a few months after adoption. A positive test in kittens under 6 months of age might be only a temporary result from antibodies transferred from an infected mother or it might represent true infection. Retesting over time will likely be needed to tell the difference.

What makes FIP so big and bad?

The FIP, or feline infectious peritonitis, virus is a member of the coronavirus family. An intestinal form of coronavirus is common in young cats housed in catteries and shelters and usually causes only mild disease. FIP occurs when an intestinal form of coronavirus mutates into a more aggressive virus. This occurs in a small percentage of cats but is a fatal disease.

Crowding is one stress suggested to cause the very common intestinal virus to change to an aggressive viral form that causes FIP in a few cats. FIP is a dreaded disease that sends chills down the backs of kennel and cattery owners. It's both lethal and incurable, according

to Cornell. Accurate diagnosis is part of the strategy to prevent other cats from becoming infected from virus that is passed in the stool.

Testing for FIP

Diagnosing FIP in a sick cat is a challenge due to the varied clinical signs and complex testing. Many cats with FIP will have increased antibody levels, but not all. Also, the common blood test for feline coronavirus antibodies cannot separate infection with the much more common, intestinal "enteric" form (FECV). Until recently, biopsies and specialized tissue tests were needed to diagnose FIP confidently[1].

Differentiating the two forms of FIP

Fortunately, there is a relatively new test called FIP Virus RealPCR™ that can be used to help differentiate the two viral forms and confirm the diagnosis of FIP in cats. [This test is offered by Pet Health Network's Parent company, IDEXX Laboratories.] The availability of this new test for the detection of mutated FIP virus can help veterinarians reach a diagnosis so that cat guardians can make informed decisions about treatment.

What makes feline heartworm infection so big and bad?

Heartworm infection is spread by mosquitoes and is an often underestimated issue for cats. In spite of the fact that the test for feline heartworm antigen is not diagnostic in all cases, this test is generally included when testing for FeLV and FIV. A negative result does not eliminate the possibility of infection being present, but a positive heartworm antigen test is highly accurate. See the top 10 states for feline heartworm disease here.

What makes feline distemper and respiratory diseases so big and bad (FVRCP)?

These diseases include: Feline Panleukopenia (or distemper) and viral respiratory diseases (Herpesvirus, and Calicivirus). Panleukopenia is a disease with often high mortality rates, caused by feline parvovirus (FPV). Clinical signs include:

- Lethargy
- Anorexia
- Vomiting
- Diarrhea
- Fever

Feline Herpesvirus causes severe upper respiratory disease that includes sneezing, congestion and conjunctivitis. Feline Calicivirus causes upper respiratory tract disease and oral ulceration.

Using vaccinations to fight big, bad diseases

Historically, veterinarians recommended yearly vaccinations against most feline infectious diseases. In recent years, there has been a trend to avoid vaccinations that may not be strictly necessary. Instead of yearly vaccination, some authorities are advocating for pre-vaccination testing to measure the level of protective antibodies. Serology (measuring the level of specific antibodies against a particular infection) can be used instead of giving FVRCP vaccines annually. Several studies have shown that measuring the level of antibodies against these viruses is a good indication of the immune status of most cats and their ability to resist infection.

The decision to vaccinate or check pre-vacccinal antibody titers is based on a number of factors. Your veterinarian is best informed to make a recommendation for testing or vaccinating yearly.

Check out:

- What Vaccines does My Kitten Need?
- What Vaccines does My Adult Cat Need?

If you have any questions or concerns, you should always visit or call your veterinarian -- they are your best resource to ensure the health and well-being of your pets.

Resources:

1. Addie, Dianne, et al. "Feline Infectious Peritonitis." Journal of Feline Medicine and Surgery 11 (2009): 594-604. Dr-addie.com. Web. 8 Aug. 26

2. "Feline Infectious Peritonitis (FIP) Overview." - Feline Infectious Peritonitis (FIP). Remedy's Health Communities, 1 Oct. 2001. Web. 26 Aug. 2015.