

Feline Immunodeficiency Virus Infection (FIV)

Feline immunodeficiency virus (FIV) is one of the most common and consequential infectious diseases of cats around the world, and can cause an irreversible infection in cats. While similar to human immunodeficiency virus (HIV) in people, FIV cannot be transmitted to people. However, cats with FIV may have immune deficiencies that eventually make the cats vulnerable to the same secondary diseases that people with depressed immune systems can acquire (chronic diarrhea or respiratory or skin problems that people with HIV/AIDS can have). A retrovirus, like FIV, is an organism that survives by invading the animal's healthy cells and "taking control" of the mechanism that the cells use to replicate. In this way, the virus guarantees that it will be present in future generations of the cells throughout the body.

FIV is spread from cat to cat, primarily through bite wounds from infected cats. Unneutered, adult male cats that roam outside are most commonly infected; however, any cat can acquire this disease. It is rarely transmitted from an infected mother cat to her kitten, and sexual transmission is very uncommon.

The virus causes damage in two ways. It weakens a cat's immune system (immunosuppression) and makes the cat susceptible to other infections, other viruses, yeast, fungi, etc. (secondary or "opportunistic" infections). A virus can also directly destroy healthy cells so that they no longer function properly. Initially, for a few weeks after infection as the virus is spreading through the body, a cat may have a low-grade fever, enlarged lymph nodes, or other vague signs of illness that may not be detected. After this, the virus generally goes into a latent stage during which time they appear healthy; however, the virus continues to work in the two ways described above. This latent stage can last for many years before the cat shows any outward signs of illness. Symptoms, if they eventually occur, may include skin and ear infections, diarrhea, anemia, redness and inflammation of the gums causing decreased appetite and/or tooth loss, respiratory problems (pneumonia), abnormal urination, abnormal behavior (roaming, confusion or dementia), and certain types of cancer. These symptoms depend upon which cells the virus "chose" to infect, and are often nonspecific. These kinds of symptoms are vague, and may be caused by any of a number of disorders that are completely unrelated to FIV. The presence of such symptoms, particularly in cats that roam or have been strays in the past (exposed through bites from other cats) leads a veterinarian to want to test a cat for FIV.

DIAGNOSIS:

A blood test is commonly performed to detect this disease. It is a good screening test, although no test is 100% reliable. For example, previous vaccination for FIV can make the result of the test positive even in the absence of actual FIV infection. Similarly, kittens younger than 6 months can test positive not because they are infected, but because they acquired antibodies to the infection from their mother's milk. There are many factors that must be considered when interpreting test results, and if any discrepancy arises, your veterinarian may choose to repeat the test at a later date and/or send a blood sample to a laboratory where another test may be done to help confirm a diagnosis.

LIVING WITH THE DIAGNOSIS

Cats that have FIV must be kept indoors and isolated from other cats. Isolation is important to prevent a cat from transmitting FIV to other cats and to prevent the infected cat from contracting diseases from other cats. FIV+ cats should be neutered to decrease the tendency to roam and fight. Proper nutrition is extremely important to help an affected cat remain as healthy as possible. The latent period may last for many years in FIV+ cats, and a positive test result in a cat that is otherwise feeling well does not imply suffering of any kind or other immediate health problems. Other cats should not be brought into the household and exposed to this cat (to prevent spreading of FIV), especially if the FIV+ cat is resentful or aggressive toward other cat(s). There is a vaccine available for FIV, but this is not considered a routine vaccine. It does nothing to treat infection once it occurs. The vaccine is most suitable for uninfected cats that roam outdoors and are likely to be exposed to infection. It's a good idea to schedule regular vet visits so that subtle changes in your cat's health can be detected and a treatment plan can be discussed.

TREATMENT

Pet: For infected cats that seem well, no medications are required. However, you must be alert to any new problems that might signal a secondary infection or some other complication of the virus. When such complications do arise, those issues should be treated directly. This might include antibiotics to treat secondary bacterial infections resulting from a weakened immune system, transfusion for anemia, chemotherapy for cancer, or dental procedures for oral complications. No medication can completely eliminate the virus from a cat's body. However, there has been limited success using *antiviral* drugs designed for humans. Another type of medication, *immune stimulants*, have been used to strengthen the animal's own immune system (variable success). Treatment may involve injections and/or oral medications.

Environment: FIV is spread most commonly through bite wounds and not through casual contact. If the virus exists on objects such as food or water bowls and litter boxes, it is easily destroyed using common household disinfectants such as diluted bleach (1 part bleach to 30 parts water). If you plan to bring a new cat into the home after the FIV cat no longer lives there, there are no special precautions to take assuming it has been more than several days since the FIV-infected cat has left the premises.

DON'Ts

- **DO NOT** assume that having FIV is a "death sentence" for a cat. Quite the opposite, most cats with FIV show no symptoms, feel well, and continue to do so for years (a normal life span with a good quality of life IS possible).
- **DO NOT** introduce cats with an FIV-positive status to cats currently in your household.
- **DO NOT** allow FIV-positive cats to roam outdoors or to come in contact with any other cats.
- **DO NOT** allow kittens to nurse from FIV-positive mother cats.
- **DO NOT** assume that a cat vaccinated against FIV cannot contract this disease; no vaccine can provide 100% protection.

SIGNS TO WATCH FOR: If your FIV+ cat shows any signs of illness, including weakness, lethargy, vomiting, diarrhea, decreased appetite, weight loss, skin and/or ear problems, abnormal urination, or any abnormal behavior.