

## **What is feline immunodeficiency virus (FIV)?**

Feline immunodeficiency virus (FIV) is a virus specific to the cat family. It is similar to human immunodeficiency virus (HIV), the cause of AIDS in humans, in that it attacks and weakens the immune system and there is no cure.

FIV was first recognized in the mid-1980s and has been found in cats worldwide. Although widespread, it is not a common infection in cats.

On average, only 1% to 5% of cats show evidence of exposure to the virus, though infection rates vary, depending on geographic location and sample population. For example, feral cat populations are likely to have a higher rate of infection. There are different strains of FIV, and some seem more harmful than others.

## **My cat has tested positive for FIV. Does my cat have feline AIDS?**

Being FIV-positive is not the same as having feline acquired immunodeficiency syndrome (AIDS). The FIV screening test detects antibodies that have formed in your cat's blood because of infection with the feline immunodeficiency virus. A FIV-positive diagnosis means that your cat has been infected by the virus, but it may be years before your cat develops the clinical signs referred to as feline AIDS, if ever.

## **Is my family at risk if my cat has FIV?**

No, your family is not at risk if your cat has FIV. Although HIV belongs to the same virus family as FIV, the two viruses infect different species. HIV infects only humans and FIV infects only cats. The viruses are specific to their species and there is no risk of cross infection between cats and people.

## **Are other cats in my household at risk?**

Other cats in your household may have already been infected and should be tested. Spreading between cats through normal social contact, such as grooming, is unlikely. However, a cat with FIV does present a risk to other cats.

## **How do cats get FIV?**

Infected cats shed the virus mainly in their saliva. Transmission of infection occurs when an infected cat that is actively shedding virus into the saliva bites another cat, introducing its saliva through the bite wound.

A susceptible cat can also be infected when other bodily fluids enter its body, particularly infected blood. Infected blood may enter the cat's body through a bite wound or the cat may become infected through a blood transfusion. The virus may also be sexually transmitted.

It is not surprising that many FIV-positive cats are known fighters, and often have a history of cat bite abscesses. Any cat bitten by another cat with an unknown medical history should be tested for FIV approximately two months after the bite.

The FIV organism cannot survive for long outside of living cells – another reason why casual infection is uncommon. Kittens may become infected before, at, or soon after birth. In these cases, it is believed that the virus is transmitted across the uterus during pregnancy or through the mother cat's milk during nursing. Around a quarter to a third of kittens born to an infected mother are likely to be infected themselves.

## **How is FIV diagnosed?**

FIV is diagnosed through blood tests that detect antibodies to the virus. The most common screening test is called an enzyme-linked immunosorbent assay (ELISA). A positive test result means the cat has produced antibodies to the virus, and it is likely it has been and still is infected by the virus.

False positive results may occur if a cat has been vaccinated against FIV, since the antibody test does not differentiate between antibodies produced by the disease and vaccine-induced antibodies. Vaccination for FIV is no longer widely done and typically not recommended. Kittens born to an infected mother may receive maternal antibodies, or antibodies to the virus that pass through the milk, causing a false positive test result. Kittens under four months of age that test positive should be re-tested when they are six months old, by which time any maternal antibodies will have disappeared.

It can take up to eight weeks for a cat to develop antibodies to FIV, so a cat that has recently been infected with this virus may falsely test negative. If a cat is diagnosed positive on the ELISA test, the results should be confirmed by retesting in eight weeks (for young kittens) or by submitting blood samples for a more definitive Western blot test or polymerase chain reaction (PCR) test. However, a PCR test may be negative in cats that are asymptomatic.

## **Will my cat recover from FIV?**

Once a cat is infected with the FIV virus, it remains infected for the rest of its life. However, it is not clear if all infected cats become clinically ill. It may be weeks, months, or even years after the initial infection with FIV before a cat develops clinical signs of illness.

## **What type of disease does FIV cause?**

FIV causes disease because it reduces the ability of the cat's immune system to respond to other infections. Infections that the cat would normally recover from become prolonged or chronic. As a result, many of the clinical signs associated with FIV are due to other, non-healing infections.

Collectively, the signs associated with FIV are sometimes called feline AIDS. Common clinical signs of FIV infection include:

- Gingivitis/stomatitis (inflammation of the gums and mouth)

- Weight loss
- Poor appetite
- Fever, especially fever of unknown origin
- Inflammation of the membrane around the eyes (chronic conjunctivitis) and possibly uveitis (inflammation inside the eyes)
- Swollen lymph nodes
- Vomiting and diarrhea

Most of these signs are non-specific and can be seen with many diseases. Any cat with persistent or recurrent illness or clinical signs should be tested for FIV, regardless of lifestyle.

## **Is there any treatment for FIV?**

Secondary bacterial infections associated with feline AIDS can be effectively treated with antibiotics. Unfortunately, this treatment is usually only temporary, as new infections will continue to occur due to the suppressed immune system.

Some cats have been treated with human anti-HIV drugs, such as AZT (zidovudine, Retrovir®), with some success. An immunomodulatory medication called interferon may have some benefit, but it is not available in some countries. Talk with your veterinarian about these treatment options.

## **Should I have my cat euthanized?**

Generally, euthanization is not necessary until the late stages of disease. Like people with HIV, cats with FIV have a long period where they can appear healthy and show no clinical signs. This period may last for two to five years or perhaps even longer, during which time your cat will have a normal, happy life.

## **How can I prevent my cat from becoming infected and is there a vaccine?**

As most cats become infected from bite wounds during fighting, you can minimize the risk of FIV infection by making sure your cat is neutered and, where possible, kept indoors. There is no vaccine currently available.

## **One cat in my household is FIV-positive and the others are not. What should I do?**

Ideally, if one of your cats is FIV-positive, place the FIV-positive cat in a home with no other cats. Otherwise, as there is a low risk of infection spreading to your other cats by social contact, you may choose to keep the FIV-positive cat, but give it a separate feeding bowl from the other cats and do not leave out food for all cats to share.

## **How can I help my FIV-positive cat?**

You can help your FIV-positive cat in a number of ways:

- Ensure your cat has a healthy lifestyle and is fed a high-quality diet.
- Ensure your cat has twice-yearly examinations (including blood and urine tests) to monitor immune status.
- Treat any infections promptly and aggressively.
- Avoid feeding an FIV-positive cat a raw diet, as the pathogens that can be found in these foods may make your immune-compromised cat ill.
- Provide parasite control, as recommended by your veterinarian, to ensure your cat stays as healthy as possible.
- Provide routine dental care, as it is important for many FIV-positive cats.
- Keep your FIV-infected cat indoors to ensure the health of the neighborhood cats, and to reduce the likelihood of your cat picking up infections from other cats.
- Talk to your veterinarian about appropriate vaccines to give to your cat. Depending on their risk of contacting infected cats, or legal requirements in the area you live in, your vet may or may not recommend vaccines for your FIV-positive cat.

The better your cat's general health, the longer the asymptomatic (no obvious disease) period tends to be.