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Cat Tips

12 Signs of Feline Leukemia Virus That You Must Catch Early

In the early stages, there are often no signs of illness. However, as the disease progresses, your pet's health may gradually deteriorate or fall victim to recurring illnesses. If you can catch it before it progresses to the second stage, you may be able to help your pet live a normal life.

Analysis by Dr. Karen Shaw Becker

STORY AT-A-GLANCE

- The feline leukemia virus (FeLV) causes leukemia and other cancers, as well as immunodeficiency in affected cats
- FeLV is most commonly seen in cats living with infected cats or cats of unknown infection status, those allowed outdoors where they can be bitten by an infected cat, and kittens born to infected mothers
- The most common mode of cat-to-cat transmission of FeLV is through mutual grooming
- Early in the infection, many cats show no signs of illness. As the disease progresses a cat's health may gradually deteriorate or she may have recurring illnesses followed by periods of relatively good health
- It's very important to identify feline leukemia before a kitty becomes symptomatic and then offer lifetime immune system support. In these cases, many FeLV-positive cats can live a completely normal life

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The feline leukemia virus (FeLV) causes leukemia, a type of cancer, as well as other cancers, and also immunodeficiency. FeLV is a retrovirus in the same family as human HIV (the virus that causes AIDS), and also feline immunodeficiency virus (FIV).

Retroviruses are species-specific, meaning a feline retrovirus will only infect cats, and a human retrovirus will only infect humans. Retroviruses are found throughout nature and have been around for millions of years.

Three Types of Feline Leukemia Virus

There are three varieties of FeLV infection: FeLV-A, FeLV-B, and FeLV-C. Kitties can be infected with one, two or all three types. FeLV-A occurs in every cat infected with feline leukemia. It severely compromises the immune system.

FeLV-B occurs in about half of FeLV-infected cats, and causes tumors and other abnormal tissue growths. FeLV-C occurs in only about 1% of FeLV-infected cats and causes severe anemia.

Cats at Highest Risk of Infection

It is estimated that about 2% to 3% of otherwise healthy cats are infected with feline leukemia. The rate jumps to 13% or more in kitties who are sick, very young, or otherwise highly susceptible to infection. At highest risk for infection are:

- Cats living with infected cats or cats of unknown infection status
- Cats allowed outdoors where they can be bitten by an infected cat
- Kittens born to infected mothers

Modes of Transmission

The FeLV virus is shed in bodily fluids including saliva, nasal secretions, urine, feces, and blood. The virus is transmitted through direct contact, primarily mutual grooming, and use of shared **litter boxes**, food and water bowls.

FeLV can be passed from a mother cat to her kittens either in utero, or while nursing.

The disease can also be transmitted through the bites and scratches of an infected cat. It takes large amounts of virus to infect an adult cat, so prolonged contact or a bite is necessary for transmission.

Stages of a Feline Leukemia Virus Infection

There are two stages of an FeLV infection. The early stage is called primary viremia, and during this stage some cats are able to fight off the virus and halt progression of the infection to the second stage, called secondary viremia.

This stage is characterized by persistent infection of the bone marrow and other tissue, and is considered irreversible. Two to four weeks after exposure to the feline leukemia virus, a cat will respond in one of a few ways:

- Some kitties will not become infected due to inadequate exposure and/or a good immune system response.
- Some will develop a latent or regressive infection, meaning they didn't completely clear the virus, but their immune system can hold it in check. These cats typically show no signs of infection and do not shed the virus in their saliva or other bodily fluids.
- Kitties that do not launch an adequate immune response will become permanently infected with FeLV. These cats will shed large amounts of the virus and begin to develop FeLV-associated conditions within a few years.

This happens most often when exposure occurs before a kitten is 8 weeks old.

Symptoms of FeLV

FeLV has a number of negative effects on a cat's body. It is the most common cause of feline cancer, it can cause various blood disorders, and it can so decimate the immune system that it can't defend the body against other infections.

Common pathogens found in the environment that cause no harm to healthy animals can cause severe illness in an FeLV-infected kitty. Secondary infections are the cause of many of the diseases associated with FeLV.

Early in the infection, many cats show no signs of illness. As the disease progresses, however, a kitty's health may gradually deteriorate or she may have recurring illnesses followed by periods of relatively good health. There is a long list of symptoms associated with this viral infection, including:

- Loss of appetite
- Inflammation of the gums (gingivitis) and mouth (stomatitis)
- Slow, progressive weight loss followed by severe wasting late in the disease process
- Infections of the skin, urinary bladder, and upper respiratory tract
- Poor coat condition
- Persistent diarrhea
- Enlarged lymph nodes
- Seizures, behavior changes, and other neurological disorders
- Persistent fever
- A variety of eye conditions
- Pale gums and other mucus membranes
- Spontaneous abortions in pregnant females, and other reproductive problems

Diagnosing an FeLV Infection

There are two types of blood tests for feline leukemia that look for a specific protein component of the virus. The ELISA (enzyme-linked immunosorbent assay) test detects FeLV in both the primary and secondary stages, and can be performed at the veterinary clinic.

The IFA (indirect immunofluorescent antibody assay) test picks up secondary viremia only, so the majority of kitties who test positive will be infected for life. This test must be sent out to a diagnostic laboratory and is often used to confirm a positive ELISA test for FeLV.

FeLV Treatment Options

There is no specific treatment for kitties with FeLV, however, any existing secondary infections will need to be treated.

FeLV-positive cats should be kept indoors, which will prevent the spread of the virus to other cats, while also reducing the risk that your kitty will be exposed to pathogens her immune system may not be able to handle. FeLV-positive cats should not reproduce and should never be vaccinated for anything, ever.

Your cat should be fed a balanced, nutritionally complete, species-appropriate diet. Unless your kitty has a low white blood cell count — in which case I recommend cooked fresh food — a raw diet is fine. You can also select a commercially available raw food diet that has been high-pressure pasteurized; this is a great choice for cats in all stages of the virus.

Cats with FeLV should see the veterinarian at least twice yearly to review the health of their eyes, gums, skin and lymph nodes, and to check their weight. At one of the two yearly visits, bloodwork and urinalysis should be performed.

Careful, consistent monitoring of your FeLV-positive kitty's health and behavior is extremely important so that you can notify your vet right away of any changes. I've had good success keeping my FeLV-positive patients very healthy using a variety of natural supplements to support the immune system, including:

- Standard Process Feline Immune System Support and Feline Whole Body Support
- Medicinal mushrooms
- Turmeric
- IV vitamin C therapy
- Ozone therapy
- Kyosenex thymus extract
- Chinese herbs
- FeLV homeopathic nosodes

I've also had good success keeping FeLV-infected cats who have not yet developed symptoms of the disease, asymptomatic.

Prognosis and Prevention

Sadly, the majority of leukemia-positive cats whose immune systems aren't supported typically die from a secondary disease within two or three years of becoming infected. Cats that acquire one or more serious FeLV-related illnesses, kitties with persistent fevers and weight loss, and those with cancer, can be expected to have a much shorter survival time as well.

The goal should always be to identify feline leukemia before a kitty becomes symptomatic, and then offer lifetime immune system support. In these cases, many FeLV-positive cats can live a completely normal life. The only foolproof way to keep your cat safe from FeLV is to prevent exposure to the virus. This obviously means keeping her away from potentially infected cats.

If your cat goes outdoors, it should be under your close and constant supervision, or in a safe, secure outdoor enclosure — one that prevents other cats not only from getting in, but from being able to bite or scratch your kitty through the sides or top of the enclosure.

If you have an uninfected cat, never allow untested or at-risk kitties to mingle with yours. House FeLV-positive cats separate from viral-free cats. I do not recommend the FeLV vaccine, as it's often ineffective and has been linked to the development of vaccine-associated sarcomas in cats. Indoor-only cats have little to no exposure risk, and absolutely should not receive the vaccine.
