



Feline Leukemia Virus (FeLV):

What You Need to Know Before Adopting

What is Feline Leukemia Virus? Feline leukemia virus, also known as “FeLV,” is the cause of a variety of diseases. As a retrovirus, it replicates itself inside living cells, making it impossible to cure. Specifically, FeLV invades and replicates in cells of the cat’s immune system and tissues that create blood cells. Feline Leukemia Virus (FeLV) is not transmissible to humans or any animal except other cats. FeLV weakens the cat’s immune system, therefore, FeLV-positive cats typically have more difficulty fighting off disease and infections than FeLV-negative cats.

There are three primary outcome stages of FeLV infection: abortive, regressive and progressive. An **abortive** infection occurs when a cat clears the infection. A **regressive** infection occurs when the virus enters the bloodstream, but the cat’s immune system is successful in clearing the virus and it does not become ill from FeLV-associated diseases. However, in regressive cases, the cat still has FeLV viral DNA integrated into its genetic code. In a **progressive** infection, the cats shed virus in their saliva, ocular and nasal secretions, urine, feces and milk and are thus infectious to other cats.

Approximately two-thirds of cats exposed to FeLV will experience either the abortive or regressive stage of infection, and about one-third of cats develop progressive infection. Ideally, the stage (abortive, regressive or progressive infection) should be determined for all FeLV-infected cats, however this is further complicated by the fact that an individual cat can move between these stages over the course of the infection.

What does a positive FeLV test result mean? FeLV tests detect infection, not clinical disease. Single point in time tests are not enough to determine the prognosis/stage. FeLV antigen by ELISA tests are preferred for initial screening and confirmatory testing. It should be noted that FeLV vaccination does not interfere with test results.

A positive result from the initial ELISA test may be reflective of the transient period associated with regressive infections. It is therefore recommended that a cat with a positive initial result be retested at 60 days. New research has shown that additional follow up tests for FeLV-positive cats should include the FeLV Quant RealPCR which detects the presence of FeLV proviral DNA and may provide additional information for staging (regressive vs. progressive) and monitoring of the FeLV infection viral load.

How common is FeLV? FeLV infection is found worldwide in approximately 1-2% of the cat population. The proportion of cats infected differs according to the geographical location, environment and the lifestyle of the cat. Infection is more common in colonies of cats where there is close contact between individuals.

How is FeLV transmitted or spread? A cat with FeLV sheds virus in bodily fluids such as saliva, urine and feces. FeLV is a contagious virus, but cannot survive longer than a few hours in the environment outside of the cat. This means that if you pet a cat with FeLV and then pet another cat, the risk of transmission is low. Transmission requires a prolonged period of close contact between infected and susceptible cats. Susceptible cats are kittens and adult cats with weakened immune systems. Healthy adult cats are usually able to mount a proper immune response to the disease. Although cat bites by an infected cat can readily transmit infection, close contact activities that can also transmit infection include mating, mutual grooming, and sharing of litter trays and food/water bowls. Because of the transmission risk, it is NOT recommended to co-mingle FeLV-positive cats with FeLV negative cats, or allow FeLV-positive cats outdoors.

How can infection of FeLV be prevented? Reduce risk factors by spaying/neutering your cats, keeping them indoors and not allowing them to interact with cats that are unknown to you or have an unknown FeLV status. If your cat goes outside, consult with your veterinarian about FeLV vaccination. Vaccination is helpful in preventing infection with FeLV, but it is not 100% protective.

What diseases does the virus cause? In many cats, FeLV infection results in suppression of the immune system. This means that the cat is less able to defend itself against a wide range of infections that would not normally cause a problem in healthy cats. A variety of symptoms could develop, and there is a progressive deterioration in their health over time. However, many FeLV-positive cats live for many years without illness. FeLV can cause diseases such as enteritis (chronic diarrhea), eye disease, anemia and stomatitis (painful inflammation of the mouth). Occasionally the virus can cause cancer. The most common tumor associated with FeLV is that of lymphoid (immune) cells known as lymphoma.

Is there any treatment for FeLV infection or disease? There is currently no specific treatment for FeLV-infected cats and no cure. If FeLV is causing immunosuppression and the patient develops secondary infections, the secondary infections may be treatable, leading to improvement.

What kind of special care does a FeLV-positive cat need?

- Preventive care is particularly important. FeLV-positive cats need a healthy diet (raw diets are not recommended, due to pathogen exposure) and adopters should follow their veterinarian's advice about vaccines and parasite prevention. Adopters should be attentive to any signs of illness and seek veterinary care when any concerns arise. A routine physical exam by your veterinarian is recommended twice a year.
- The outdoors is especially dangerous for a FeLV-positive cat because of the potential exposure to diseases, parasites, and injury risks such as other animals and cars. A virus, parasite, or infection that another cat might effectively fight off could make a FeLV-positive cat seriously ill. It is also important to keep FeLV-positive cats indoors to prevent them from spreading the disease to other cats in the area.
- FeLV-positive cats are also more susceptible to stress-related illness. Owners should take extra precautions to reduce potential stress during events like remodeling, moving, and other household changes.
- FeLV-positive cats will only be adopted out to single-cat homes or homes with other FeLV-positive cats

How do I know if my cat is showing signs of FeLV? There are many potential issues that FeLV cats can develop, so owners should be aware of their cat's normal behaviors and bring them to the vet right away if anything changes. If your cat becomes ill, it does not mean that your cat cannot be treated – most secondary infections due to the virus are treatable. Some common symptoms of illness include: hiding, lethargy or a decrease in normal activity, decreased appetite or anorexia, frequent sneezing or coughing, green discharge from the eyes or nose, chronic diarrhea, lumps on or under the skin, and/or weight loss.

How long will my FeLV cat live? Although many FeLV-positive cats live shorter lives (typically, 4 years after diagnosis), they can still have several great years in a loving home. It's important to remember that each cat is different. Some adult cats with FeLV live normal lifespans. If your cat becomes ill and there is no effective treatment, it is also important that you are prepared to discuss with your veterinarian when it is time to say goodbye.