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## Feline Leukemia Virus

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### BASIC INFORMATION

#### Description

Feline leukemia virus (FeLV) can cause a permanent infection that eventually leads to suppression of the immune system, various bone marrow disorders (such as anemia or leukemia), or cancer.

#### Cause

The virus can infect any cat. It is spread by close contact and from mother to kittens across the placenta and through the milk. It may also be spread by blood transfusions or equipment that is contaminated with infected blood or other body fluids. It is shed in saliva, tears, urine, feces, and milk.

The virus is susceptible to drying, sunlight, disinfectants, and detergents, and it does not survive well in the environment. However, it may persist long enough in shared food and water bowls, litter boxes, and other items to be transmitted to other cats.

#### Clinical Signs

Some infected cats have no clinical signs. When a sick cat is diagnosed with FeLV infection, it may be difficult to determine whether the presenting problem is caused by FeLV or some other disease.

Fever, lethargy, enlarged lymph nodes (glands), and weakness from anemia may occur. Some infected cats develop cancer, usually of the lymph nodes or bone marrow. Signs of gastrointestinal disease, such as weight loss or diarrhea, occur in some cats. Infected cats are often more susceptible to infections with other viruses and bacteria, and they may show signs of multiple infections (skin lesions, coughing, vomiting, diarrhea, others). Pregnancy failure and delivery of weak kittens may also occur.

#### Diagnostic Tests

Because cats can be asymptomatic shedders of FeLV and transmit the infection to other cats, it is commonly recommended that cats be tested for FeLV at some point in their lives. Testing may occur when cats are acquired as a new pet; when they are exposed to an infected cat; when they are potentially exposed after escaping from the house or being allowed to roam outside; or when they are ill. Testing is also done prior to vaccination against FeLV.

Routine laboratory tests and x-rays are often recommended to investigate the clinical signs. Further testing may include aspiration of enlarged lymph nodes and the bone marrow, especially if anemia, leukemia, low white blood cell counts or low platelet counts are found. Any results or signs that indicate an abnormal

immune system may prompt testing for FeLV and feline immunodeficiency virus.

Diagnosis of FeLV infection is commonly made from a blood test that is available in most veterinary clinics. Initial FeLV test results may be verified in some cases by tests that are done at outside laboratories. For example, your veterinarian may recommend verifying positive test results. Verification is done not only by performing more than one type of test but also by testing the cat at different times.

### TREATMENT AND FOLLOW-UP

#### Treatment Options

Some cats appear to spontaneously clear the infection or to reduce the number of virus particles to such a low level that many FeLV tests are negative and the cat remains healthy.

No treatment is proven to eliminate FeLV infection. Some antiviral drugs and immune-modulating drugs have been tried, but no treatment is curative. Healthy FeLV-positive cats do not require any specific treatment. Cats that are FeLV-positive and have clinical signs are treated with appropriate medications and supportive care for those signs.

#### Follow-up Care

Cats with FeLV infection should be kept indoors and isolated from noninfected cats. Infected cats should not be bred, because the virus may be transmitted to the unborn kittens. The American Association of Feline Practitioners recommends that healthy FeLV-infected cats visit a veterinarian at least twice a year for a physical examination and a complete blood count, and that a serum biochemistry panel and urinalysis be done at least once a year.

FeLV-positive cats do not benefit from vaccination for FeLV; however, they may receive other routine feline vaccinations (for feline rhinotracheitis, calicivirus, and panleukopenia virus, as well as rabies) as long as they remain healthy. FeLV vaccinations are not routinely recommended for low-risk cats, such as indoor cats, cats in a single-cat household, and cats in a household where all cats have tested negative. Vaccination may be considered for high-risk cats, so discuss this option with your veterinarian.

#### Prognosis

Adult cats with FeLV infection may live a normal, healthy life for many years. Cats that are infected as kittens or are ill at the time of diagnosis have a guarded (uncertain) to poor prognosis. Euthanasia is not usually recommended based on a positive FeLV test alone.