

Feline Leukemia

Feline leukemia virus infection was, until recently, the most common fatal disease of cats. Because we can now protect cats with a leukemia virus vaccine, we are seeing fewer cases of the disease. Feline leukemia virus is a retrovirus. There are three subtypes of the virus and the diseases caused are dependent upon the particular subtype involved. The feline immunodeficiency virus, or feline AIDS virus, is another feline retrovirus. In humans, HIV is caused by a retrovirus.

Contributing Factors

Cats who are greatest risk for contracting the feline leukemia virus are those who live in close, direct contact with an infected cat. Fighting is a known risk factor because the virus is shed in saliva. Kittens may contract the virus from the mother via the placenta.

Causes/Transmission

The main means of transmitting the virus is through catfights. Because large quantities of the FeLV are shed in cat saliva, puncture wounds associated with fighting result in injection of the virus into other cats. There are also large amounts of virus in respiratory secretions. Other less frequent routes of viral spread include sharing food and water bowls, cats grooming each other, and transmission from mother to kittens before birth.

Diagnosis

The "leukemia test" is used to determine if a cat harbors the virus.

The Cat that Tests Positive - Possible Outcomes of FeLV-infection

1) **IMMUNITY** The cat mounts an immune response, eliminating the infection. This is the most desired outcome because the cat will not become persistently infected with the virus. Immunity to the virus is more likely to develop in the adult cat than in the kitten. The cat is retested 1-3 months post infection, and if still positive is just monitored at home. However, because of the risk to other cats, this cat must stay indoors, and not be exposed to other cats.

2) **INFECTION** The cat's immune system is overwhelmed by the virus. The cat is persistently infected with FeLV. Although the cat may be sick for a few days initially, it usually recovers and appears normal for weeks, months, or years. Ultimately, most of these cats die of FeLV-related disease, but as many as 50% will still be healthy after 2-3 years and 15% after 4 years. Vaccination of these cats will not cause any problems, but doesn't help the cat, either.

In the healthy FeLV-positive cat, they may remain apparently unaffected by the virus for several years. With good supportive care and prompt attention to all potential medical problems, these cats may live for a number of years. Bear in mind that these cats should be considered infectious and potentially dangerous to other cats. Such cats should be isolated from non-infected cats to prevent spread of infection.

Transmission to Humans

To date, no conclusive evidence has demonstrated any FeLV-related disease in humans or other animal species, including the dog.

Prevention

A vaccine is available to protect cats from the FeLV. Although not 100% of cats are totally protected, the vaccine is strongly recommended for cats who are exposed to open populations of cats, (i.e., outdoor cats). If your cat stays indoors at all times and is not in contact with another cat that goes outdoors, the vaccine is generally not recommended.

Testing Prior to Vaccination

Cats that are already infected with the FeLV will not be helped by the vaccine. We recommend pre-vaccination testing for the FeLV in new kitten, cats exposed to FeLV-infected cats or cats from unknown backgrounds (particularly animal shelters, humane societies, or pet shops).