

FELINE IMMUNODEFICIENCY VIRUS

Feline immunodeficiency virus (FIV) is an important viral infection of cats that occurs worldwide.



FIV in the stray cat population is certainly a problem. It is mainly un-neutered toms, fighting over food, females or territory, who pick up and spread the virus. The stray cat has no-one to look after them, and their lifestyle means they are more likely to pick up other infections, which without treatment can escalate.

The prognosis for FIV-infected cats is guarded, but depends on the stage of disease. If FIV is diagnosed early, there may be a long period, during which the cat is free of clinical signs related to FIV, and not all infected cats go on to develop an immunodeficiency syndrome.

Infection is almost invariably permanent, but many infected cats can be maintained with a good quality of life for extended periods.

What Causes It?

FIV strains in cats living normal lives tend to be much more benign, and may never cause disease.

Feline Immunodeficiency Virus (FIV) has been associated with cats for many years, although it was only labelled as such as recently as 1986.

The virus depletes the number of white blood cells, which causes immunosuppression, which eventually results in the cat being less able to fight off infection. However, because it is such a slow acting virus many FIV positive cats can enjoy a normal life with no apparent health problems resulting from the virus.

FIV is species specific. It can only be transmitted from cat to cat, not to humans or other animals.

How is it Transmitted?

Unlike human immunodeficiency virus (HIV), sexual contact is not a major factor in transmitting feline immunodeficiency virus (FIV).

The virus is present in the blood and saliva of infected cats, but, it is a very 'fragile' virus, and cannot survive for long outside the body.

It also requires quite a high dose to establish an infection in another cat. Therefore, it is not easily passed from cat to cat.

The main route of infection is through biting, when the virus in the saliva of an infected cat is injected directly into the blood stream of the cat it bites. A cat which bites an infected cat, is at less risk of being infected, as the virus would not be injected straight into the blood stream, although there is still an element of risk.

Contact through sharing food and water bowls does not significantly increase the risk of contracting FIV and although a mother cat may pass the virus along to her kittens, this happens rarely.

Transmission between cats in a group who do not fight, is unlikely.

Which Cats Are At Risk?

Feral cats living in colonies, are most at risk. Where there is competition for food and where territorial, complete tomcats are vying for the attention of females that are in season, fights often occur. The resulting wounds, can become infected with FIV and because these cats do not have proper care, secondary infection often result.

Signs and Symptoms.

Once the virus enters the bloodstream, it can remain dormant until it progresses into an active disease.

Because it targets the immune system, cats that have the disease run an increased risk of the symptoms of immunodeficiency, These include:-

- enlarged lymph nodes.
- ulcers of the tongue.
- inflamed gums.
- progressive weight loss.
- lethargy.
- poor coat and skin disease.
- diarrhoea.
- anaemia.
- eye disease.
- cancer.
- kidney failure.
- sneezing and snuffling.
- discharge from the nose.

- the brain can be affected in a very small number of cases, resulting in changes in behaviour.

Signs that a cat has become infected can vary greatly, so it is not always apparent until a blood test is carried out. Often, the cat may develop raised lymph nodes around six to eight weeks after being infected, and they may have a high temperature. Sometimes diarrhoea or conjunctivitis may develop, possibly lasting days or even weeks, with the cat then returning to apparent health.

When a cat suffering from any number of secondary infections, is taken to a vet, it is often too late.

But, it can be the case that owners of FIV positive pet cats, will be unaware of it, due to the cat being perfectly healthy!

A cat who contracts FIV will usually still have a strong immune system for several years after infection, it is only over time, that the effects of the virus may start to show, and then the resulting secondary infections need to be treated with the appropriate medications.

With love and good care however, many FIV positive cats can live happy and relatively long lives.

Diagnosis

FIV infects cells of the immune system (white blood cells, mainly lymphocytes). The virus may kill or damage the cells it infects, or compromise their normal function. This may eventually cause a gradual decline in the cat's immune function.

In the first few weeks after infection the virus replicates and may cause mild signs of disease such as a mild fever and swollen lymph nodes. Usually these signs are so mild they go unnoticed. An immune response will develop which does not eliminate the virus, but keeps viral replication at a relatively low level.

After a period of time, in some infected cats viral replication increases again, and it is typically these cats that go on to develop signs of disease. In most cases this will probably be around 2-5 years after the cat was first infected. Increased replication of the virus leads to progressive damage to the immune system.

There are several tests available for diagnosing FIV infection, some of which can easily be performed in your own vet's clinic. Most tests involve collecting a blood sample and detecting the presence of antibodies against the virus (usually there is not enough virus in the blood itself to be able to readily detect it).

Antibodies against FIV are produced by the cat's immune system during infection, and the test works on the principle that cats cannot eliminate the virus so if antibodies are present in the blood then the virus will also be present. These tests are generally highly reliable, but no test is 100% accurate. If there is any doubt about the validity of the test result, your vet may want to do a follow-up confirmatory test using a different method.

It is important to remember that kittens born to FIV-infected queens will receive antibodies from the queen via the milk, and so will test positive early in life though they may not be infected. Kittens with a positive test result should always be retested when they are 5-6 months of age.

Additionally, where the FIV vaccine is available, cats that have been vaccinated will also test positive on the routine antibody tests, so alternatives are needed.

Treatment

Treatment consists of dealing with whatever symptoms occur in the individual cat.

If an FIV positive cat displays any symptoms of illness, however minor, it should be taken to a vet promptly. Once established in a cat's cells, the virus is permanent.

General and supportive treatment should include:-

- Maintaining good quality nutrition.
- using a good commercial food and avoiding raw meat, eggs and unpasteurised dairy products helps reduce the risk of exposure to parasites and bacteria that might cause disease.
- Prompt diagnosis and appropriate treatment of any secondary or concurrent diseases. Longer courses of antibiotics may be needed to treat bacterial infections if they are significantly immunosuppressed.
- to maintain a good quality of life for the infected cat.
- Two forms of antiviral therapy are sometimes used in FIV-infected cats.

Prevention.

The main aims of managing an FIV-infection are .-

- to prevent further spread of infection to other cats.
- neutering all FIV-infected cats to reduce the risk of fighting and spreading infection.
- Confining FIV-positive cats indoors where possible, and keeping them away from non-infected cats. (This helps prevent spread of infection to other cats and reduces exposure of the FIV-infected cat to other infections).

Ideally, the best way to keep your cat free of FIV, is to keep it indoors. This is not always possible or even best for the cat, so other preventative measures should be in place:-

- Maintaining good routine preventive healthcare (regular flea and worm control, routine vaccinations etc.).
- Ideally veterinary health checks twice yearly - your vet may suggest certain blood tests occasionally to monitor your cat's health.
- Ideally routine screening should be performed in all cats before homing but financial constraints mean this is not always possible. Priority should be given to testing any cats at high risk (cats showing clinical signs suggesting FIV or aggressive cats).

Prevention is covered fully in the **"PREVENTION OF DISEASES IN CATS"** section.