

FELV

Feline leukaemia (FeLV) is an incurable viral infection that eventually produces fatal illness in infected cats. It is estimated that one to two per cent of cats in Britain are permanently infected, and the majority die within four years of FeLV detection. There is no risk to humans

What are the symptoms?

Initially, infection only produces mild symptoms of fever and lethargy, but more serious consequences develop over months or even years. The main effect of the virus on the body is damage to the white blood cells, which means that the cat may not be able to fight off infections. As a result, FeLV, like another cat virus called FIV, has many different symptoms.

How is infection diagnosed?

Diagnosis is by blood test, but it is not straightforward. Testing of cats can be carried out at any age from birth.

We offer a simple "in-house" screening test but the results are not fully reliable. Both false positives and false negatives can occur, so repeat or more specific testing may be recommended. This uses a different method to increase the reliability of the result.

The most common problem is a healthy cat testing positive on an "in-house" test.

How does a cat become infected?

The virus is found in saliva, urine and other secretions of infected cats, and it is also passed by infected mothers to unborn kittens, all of whom are usually infected at birth. Otherwise, it is spread by licking or biting, or by sharing food bowls or litter trays. Close contact is needed, as the virus does not easily survive in the environment.

Kittens are more susceptible to the virus than older cats as the body's resistance to FeLV rises with age.

My cat has tested positive – what happens now?

Once a cat is permanently infected, there is no cure. It is likely that the cat's lifespan will be shortened, but there is no way of predicting how long an individual cat that is currently healthy will live. However, such a cat can infect other cats, and should be kept indoors and away from other uninfected cats, including cats in the same household. A test is available that can check for antibodies likely to give immunity to the virus, which may be used for cats in the same household.



Frequent infections of all kinds, weight loss, fever, lethargy, nervous signs (such as problems walking), and recurrent diarrhoea can all arouse suspicions of FeLV. Anaemia is common, and produces lethargy, weakness and pallor of the gums and tongue. The action of the virus on the immune system can also cause cancers of the white blood cells (called lymphosarcomas) to develop. About one-fifth of FeLV infected cats die from cancer.

Many recently exposed cats will test positive, but will subsequently clear the infection successfully, so a second test at least 12 weeks after the first is recommended. If the cat is still positive but healthy, a more specific test may again be offered.

The situation is different for sick cats. Statistically, there is a much greater chance that a positive result in a sick cat with symptoms compatible with FeLV infection will mean that he or she is truly infected.

Cats aged above six months are relatively, but not absolutely resistant, but high-level exposure to infected cats can overcome this resistance.

In some rare instances, apparently uninfected mothers can infect their offspring. It is thought that these mothers may have a localised infection confined to the mammary gland, which then passes into the milk.

FeLV Key points

- One positive test result does not mean that your cat definitely has the infection – and a negative does not mean the cat is absolutely clear
- Infected cats can infect others and should be kept separated
- Infection with leukaemia can cause a variety of illnesses
- Vaccination is not totally protective
- Infected mothers usually infect all their kittens

If you have a cat infected with the leukaemia virus, you can help to prolong a healthy existence by trying to limit the chances of contact with infection.

Keeping these cats indoors is in their own interest, and they should not be fed foods that may carry bacteria, such as raw meat or eggs.

Regular check-ups with the vet are a good idea, and prompt attention is essential if they are unwell. Antibiotic courses are likely to be needed for infections. Routine vaccinations should be kept up to date, although you should discuss with your vet whether it might be better to use a special "killed" vaccine.

Cats with FeLV are also prone to cancer. Treatment with chemotherapy can be attempted, but not all respond, and the viral infection remains. For those that respond, the average survival time is seven months.

What about vaccination?

Vaccination is not totally effective in every case. If you have several cats and discover that one of your cats is infected with FeLV, vaccination of the others does not guarantee that they will not become infected.

In addition, it will have no effect on the infected cat. The only way to ensure that infection is not transmitted is by isolating the infected cat.

Vaccination may be a good idea for all cats that go outdoors, and particularly younger cats.

Regular boosters should be given. Vaccination does not cause a positive result in the p27 virus blood test. You should discuss whether vaccination is necessary with your veterinary surgeon, as the chances of infection vary between locations.

Cats that never go out probably do not need vaccination, although, if you are planning to get another cat, it is a good idea to blood test the new cat before introduction.

Is vaccination safe?

All vaccinations – in cats, dogs and people – carry a tiny risk of side effects. Some cats develop a mild reaction and are slightly off colour for one or two days afterwards. Occasionally a lump may develop at the site – if this persists for more than a few weeks, bring your cat in to see us.

My last cat died of FeLV related disease – When is it safe to get another kitten?

The virus does not survive well in the environment so, provided you have no other cats, you can get a new kitten at any time. Make sure you clean food bowls and litter trays well before re-using them.

If you do have other cats, there is a risk that they may already be infected. They should be fully tested before you introduce a new kitten or cat. You may also wish to test the new cat before making your decision.

FIV

FIV is a condition similar to the virus that causes AIDS in people. However, there is no risk of people catching AIDS from infected cats. It infects the white blood cells of the immune system, killing or damaging them. A healthy immune system is needed to fight infections and monitor for cancer in the body. So cats infected with FIV have a greater risk of disease and infection from other viruses and bacteria.

Once a cat is infected, then infection is permanent. Just as in human HIV infection, carriers of FIV may show no symptoms of the disease for years. Between two to five per cent of the UK cat population is thought to be infected, but there is a lot of regional and local variation. Un-neutered male cats are more at risk.

FIV Key points

- All cats – especially males – should be neutered to reduce their chances of catching FIV
- If you have an infected cat, your cat is a risk to other cats and should be kept away from them
- Infected cats can lead long and happy lives – but they should be kept indoors

What are the symptoms of a FIV infection?

The symptoms following infection with the virus are usually mild. Your cat may have a mild fever for a few weeks and there may be enlargement of the lymph nodes (the little lumps often referred to as 'glands'). But often, cats infected with FIV appear completely normal.

Months or years later, as infection progresses, your cat may develop fever, lethargy, poor appetite and weight loss. Any recurrent illnesses may suggest that the cat has FIV – or another different virus, especially FeLV.

Common signs include long-lasting or recurrent diarrhoea, a runny nose and sneezing (rhinitis), inflammations of the eye and recurrent skin infections.

They are also more likely to get some types of cancer.

How do cats get infected?

The virus passes from cat to cat in saliva, usually through biting in fights. Un-neutered male cats are considerably more at risk of getting FIV because a single bite may be enough to infect a cat. And a cat can be infected by biting an FIV-infected cat.

About one-quarter of the kittens born to an infected mother will be infected and there is a small chance that the virus can be transmitted through sharing food bowls and by cats licking each other during grooming.

How do I know if my cat is infected?

Infected cats are identified by a blood test that looks for antibodies to the disease. For reasons not yet fully understood, these antibodies cannot fight off the infection.

However, the commonly used tests are not completely accurate, and cats that test positive should be confirmed using a different test from a commercial laboratory. A few cats that have the virus will test negative even though they are infected.

There are several other considerations with the blood test. It cannot be used for kittens under 20 weeks born to an FIV-infected mother. Some of these kittens will have

antibodies to FIV from their mother but are not infected with the virus - these antibodies interfere with the test. If it is not known whether the mother is infected, it is best to wait until a kitten is older than 20 weeks before testing.

In addition, it can take up to 12 weeks after catching the virus before the blood test can detect that a cat has the virus.

If you are worried that your cat is infected (for example, following a cat fight) you should wait for 12 weeks before testing. Finally, sick cats may not produce antibodies, so they may also test negative.

Is there a vaccine?

There is no vaccine available currently in the UK. A vaccine is used in the United States, but it is not reliable and it does not work against all the types of FIV.

My cat is infected – do I really need to keep him indoors?

Cats with the virus can obviously infect others, so it is responsible to keep an infected cat indoors – and it is better for the cat as well, since it reduces the chances of catching an infection.

How serious is it?

Do cats have to be put to sleep?

Recent studies have indicated that FIV may not reduce a cat's lifespan, and cats may live for many years after being infected. However, it is unpredictable, as some cats develop severe and multiple infections. It is important to try and protect cats with FIV from catching other diseases, as they are more vulnerable than other cats. They should not be fed raw foods that might carry bacteria, such as raw eggs or milk, and it is better to keep them indoors. Hunting should be discouraged.

I have other cats. What should I do?

Infected cats are a possible source of infection so other cats in the household should be FIV-tested.

Ideally, all FIV-positive cats should be isolated or rehomed where there will be no contact with other cats. However, as the risk of transmission by social contact such as sharing food bowls and mutual grooming is low, many owners decide to continue keeping all their cats together.

Feed cats using separate food bowls, as large amounts of the virus are present in saliva. Litter trays and food bowls should be disinfected after use to kill the virus.

The virus dies outside the cat within a few hours so infection is not easily carried on objects.

Can infected cats be treated?

Provided an infected cat is healthy, treatment is not necessary – there are no drugs that can “cure” a cat from the virus.

Measures should be taken to protect the cat from infections. Regular vaccination to protect against illnesses such as cat flu is a good idea, although you will need to discuss with your vet whether a particular version of the vaccine is needed. Furthermore, there is some evidence that repeated vaccination can speed up the development of symptoms. If you can keep your cat isolated, it may be better not to vaccinate – again, discuss with your vet.

Good quality flea control with a product bought from the vet also reduces the chances of contracting some cat diseases. If the cat appears unwell, see a vet as soon as possible, since drug treatment for infections is likely to be necessary. Regular veterinary check-ups, say, at six-monthly intervals, may be helpful. It is also a good idea to monitor your pet's weight monthly. Weight loss can be a sign of deterioration.

In some situations, some cats that are unwell, and especially those with sore mouths (gingivitis), may benefit from the use of antiviral products that are used for human AIDS patients, such as AZT. However, this is expensive, and cats need regular blood tests for side effects. Interferons can be used, and are sometimes effective in relieving symptoms.

Many other products have been suggested for use, but there is no proof that they are effective. Treatment with drugs that affect the immune system (immunosuppressive drugs such as steroids) should be used with caution. Griseofulvin, a common treatment for ringworm, should not be given. All cats with FIV should be neutered, as this removes the stress caused by coming on heat and reduces the desire to roam and act aggressively towards other cats.

CAT FLU

Cat flu is like a human cold – it can cause a runny nose and eyes, and a sore throat. Other symptoms include aches and pains in the muscles and joints, mouth ulcers, dribbling, sneezing, loss of voice and fever. Cat flu is not usually serious in adult cats, although they can be quite ill.

All cats with symptoms of cat flu should see the vet.

Cat flu can be serious, even fatal, in kittens, and in adult cats with other serious underlying illnesses. There is a risk of lasting damage to the eye, even in animals which otherwise seem mildly affected. Eye ulcers are often found and, particularly in kittens, can progress to cause serious damage and even lead to the loss of an eye.

If your cat or kitten has a sore looking or partially closed eye seek immediate veterinary attention.

What causes it?

It is usually caused by one of two types of virus or, sometimes, by certain types of bacteria. Once infected, cats shed virus particles in nasal and eye discharges and in saliva.

Although ill cats are the biggest source of infection, some healthy cats are carriers of the viruses. Carriers do not suffer from the disease itself but can shed virus particles and infect other cats. Particles can survive for up to a week in the environment, so a cat does not even need to meet another to catch the illness.

It can easily be spread by contact with infected feed bowls or toys, or on people's clothing after touching an infected cat.

Diagnosis of cat flu may be made by taking swabs and looking for the virus but, in most pet cats, this is not necessary as there is no specific treatment. It may be helpful in catteries or if a cat is suffering from one of the long-term complications of infection.

How is cat flu treated?

There are no effective antiviral drugs in common use. Antibiotics may help because, just as in human flu, once the virus has damaged the delicate lining of the nose and airways, bacterial infections can enter and cause complications, such as pneumonia.

Nursing care at home is important. A blocked nose and mouth ulcers may stop a cat eating and drinking, leading to dehydration. This can be particularly dangerous in kittens. Because your cat may have lost its sense of smell and have a sore throat, sloppy, strong-smelling foods should be offered. Suggestions include sardines, pilchards, roast chicken, or one of the invalid diets available from vets.

Cats that cannot eat may need to be hospitalised for treatment.

Encourage your cat to drink, as fluids help to loosen thick catarrhal secretions. Wipe away discharges from the nose and eyes regularly using salt water (a teaspoonful of salt to a pint of water).

Steam inhalations help to loosen catarrh, so let the cat in the bathroom when you have a bath or shower, or offer inhalations of Olbas Oil by putting a few drops of oil in a container of warm water. Place this in the room with the cat, but not where the cat might drink it!

Are there long term consequences?

Following infection, many cats are left as carriers. This means they do not have any symptoms but are potentially infectious to others.

The existence of carriers can be the reason why a kitten develops flu when introduced to a household of apparently healthy cats. Some carrier cats occasionally have a runny eye or nose for a few days.

Recurrences of flu can follow stressful events, such as a visit to the vet or the arrival of a new cat in the house.

Others are more unlucky and are left with a permanent, lifelong, thick, runny nose, or "chronic rhinitis". This happens because the delicate nasal lining has been damaged, allowing repeated bacterial infections for which antibiotics may provide only temporary relief.

It is thought that flu viruses, especially calicivirus, may contribute to long-term inflammation and soreness of the mouth, or gingivitis.

Can it be prevented?

There are lots of different strains of virus, and, just as with human flu, the vaccine is not effective against them all. Two doses of vaccine are needed initially, followed by regular boosters.

Remember that your cat will need to be fully up to date with vaccinations if they will be going to a boarding cattery when you are on holiday.

The vaccines we routinely use are only active against viruses. Vaccines are also available for the bacterial forms of cat flu. If you are breeding or showing cats, you should discuss whether these are necessary with the vet. Even vaccinated cats can become carriers without showing any symptoms and can infect other cats.

Kittens initially get some immunity from their mothers but, as they get older, this fades and they become susceptible to the infection.

Infected mothers can infect their kittens without showing illness themselves. The kittens either get flu or become symptom free carriers. It can take as long as two weeks for signs of flu to appear, so one reason for apparent vaccine "failures", especially in kittens, may be that they are already infected at the time of vaccination.

The vaccine, as with all vaccines, cannot prevent symptoms from occurring if the animal already has the infection at the time of vaccination.

Rescue catteries, etc.

Cat flu can be a real problem in any situation where a group of cats is kept, particularly if new cats are often introduced. Preventing the entry of cat flu into a group of cats is a complex issue and full discussion with your vet is essential.

At the very least, all new cats, even if they seem healthy, should be kept separate from the rest for at least two weeks, and they should be vaccinated before they mix with the others.

Bear in mind that droplets from a sneeze can transmit infection over a distance of many metres. It is best to keep mothers with litters of kittens in isolation until the kittens are ready to go to new homes.

If you have a problem with cat flu within a group of cats, it is best to stop introducing further cats to the household or cattery.

Know your enemy – Further information about the bugs behind Cat Flu

There are two main viruses. One is a type called a calicivirus, and the other is a feline herpes virus.

The calicivirus exists in lots of slightly different forms, called strains. Vaccination against calicivirus is difficult, as it is with the human flu viruses, because the vaccine cannot cover all the strains, so it is not fully protective. Fortunately, the herpes virus has only one strain, so vaccination against this works better.

The actual symptoms caused by the two viruses are slightly different.

- Calicivirus is usually milder and characteristically causes mouth ulcers. In young kittens, it can cause lameness.
- Herpes virus is often more severe and is more likely to produce eye ulcers.

The situation with carriers is also different between the two.

- Following infection with the herpes virus, it is thought that all cats become carriers, but they produce the virus in tears, saliva and nasal secretions only intermittently. This means swabs taken from these cats will not always detect the virus. Cats that are carriers remain so for life.
- With calicivirus, carrier cats shed virus particles continuously, so they are easier to identify on swabs taken by the vet. Many cats are able to completely rid their bodies of the virus after one to two years, so that they are no longer carriers.

There are also several types of bacteria that may cause flu.

- One of these, *bordetella bronchiseptica*, is the agent that causes kennel cough in dogs and it is thought that it may be possible for cats to catch “flu” from dogs.

This bacterium often affects the lungs as well. It can usually be successfully treated with antibiotics. A vaccine is available, but is not usually given routinely, although it is sometimes used in breeding catteries.

- The other bacterium sometimes encountered is *chlamydia felis*. This mainly produces sore, red, runny eyes, sometimes with a mild “cold”.

Some types of antibiotics are effective and a vaccination is available, although it is not fully protective.

It can be difficult to get rid of this infection completely from a group of cats.

If you would like any further detail on the information above please contact us on 01256 764 771 or use the contact page on our website.