

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 the cat virus FIV has many different symptoms – see the pet care leaflet, FIV (C16).

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.

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.

Most veterinary practices can offer a simple "in-house" test but the results are not fully reliable. Both false positives and negatives can occur, so repeat testing or sending samples to a commercial laboratory may be recommended. These use a different test that increases the reliability of the result. The most

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

How does a cat become infected?

The virus is found in saliva, urine and other secretions of infected cats. Although the kittens of infected pregnant females often die before birth, any surviving will be infected. 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. Cats aged above six months are relatively – but not absolutely – resistant, and infection of older cats can occur.

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.



My cat has tested positive for the virus

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.

- 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 separate
- 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. 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.

Regular boosters should be given. Vaccination does not cause a positive result in the p27 virus blood test.

Remember that a vaccination certificate alone does not mean the cat is free of infection – the cat could have been infected before vaccination.

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, the cat should see the vet.



Why is a blood test offered? Will vaccination harm my kitten if he is already infected?

Kittens can catch this disease from their mothers and may already be infected at the time of vaccination. Vaccination does not harm an infected cat, but it does not cure either. If a vaccinated cat gets the disease, there is no way of telling if your cat was already infected at the time of vaccination or whether the vaccine didn't work. Blood tests prior to vaccination are simply a "quality control" for the vaccines.

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

Because the virus does not survive well in the environment, 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 have other cats, there is a risk that they may already be infected. Full testing should be carried out before you introduce a new kitten or cat.

You may wish to test the new cat before making your decision.

More information about testing

When a virus or any other foreign invader tries to enter the body, the immune system will produce several types of antibodies. These attack the invader and try to damage it so that it does not become overwhelming. For the

for life.

(immunity) takes about four to 12 weeks. During this time the virus is only in the bloodstream.

If immunity does not develop, it establishes in the bone marrow and the cat is infected

leukaemia virus, this process

The simple "in house" test is called the p27 test because it looks for a fragment of virus called the "p27 antigen". This appears in the blood following infection. If a healthy cat tests positive, then repeating the test increases the accuracy. Sending a sample to a commercial laboratory for a different test makes it more accurate still. A cat that tests positive on two "in-house" tests is likely to be a true positive, but ideally this should still be confirmed by commercial testing.

However, testing while immunity is developing can show a cat in the process of overcoming infection as positive for FeLV, even if the cat is eventually going to develop immunity. Because of this, a single positive test result is not proof of infection in a healthy cat. If necessary, a special test can be done on healthy "positives" to look for antibodies of a type likely to be effective in providing immunity. These are called "virus-neutralising antibodies".

False negatives can also occur occasionally, in which the test is clear when your cat is actually infected. To be truly confident that a healthy cat does not have the virus, a retest should be done after a 12-week interval. This detects those in the early stages of infection at the first test, which did not then develop immunity. A false negative can sometimes occur in a sick cat as well. If there is clinically a strong suspicion of FeLV infection in a "negative" sick cat, commercial testing may be worthwhile.



Occasionally, a cat is persistently positive on the p27 test but negative on the commercial tests. It is thought that some of these cats may have "latent" infection, with the virus hidden in their body (usually in the bone marrow). As long as the commercial tests are negative, they are not a risk for other cats, but the situation should be monitored.

From outdoor to indoor cat: making the adjustment

Securing the home

When you first confine your cat he will be alert to any opportunities to escape so take extra care to close all windows, lock cat flaps and shut doors. Also make sure that washing machine doors are kept closed and chimneys are blocked off.

It's best to move any household plants that could poison your cat should he try to chew them – see the pet care leaflet, Hidden dangers (C9).



Litter trays

You will need to provide litter trays, which should be placed in a quiet, but easily accessible position away from his feeding area.

If your cat is shy or you have a busy household then a covered tray may provide your cat with more privacy. If your cat has not used a litter tray before select a soft litter and leave your cat in the same room as the litter tray until he has used it.

Scratching posts

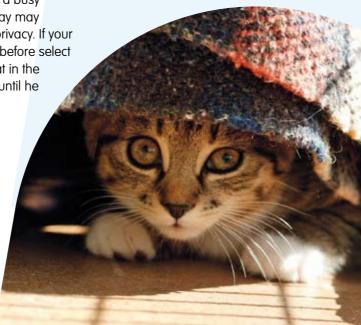
Outside your cat may have exercised his claws on trees and fencing posts. To prevent damage to your home and furnishings you will have to provide a substitute scratching post.

Making your cat feel safe

As your cat no longer has the option to move away from situations he may find stressful, you will have to provide additional resting and hiding places for him

Cardboard boxes with a towel over the front, or high shelves with comfortable bedding can both provide places he can go to feel safe and secure.

Providing these hiding places can be particularly important if you have more than one cat or a dog in the home. Since they can no longer choose to spend time apart their relationship may become strained and they may become less tolerant of one another.



Activity

Provide activities to prevent boredom, provide an outlet for hunting behaviour, and to help keep your cat fit and reduce the risk of weight gain.

In addition to providing a range of toys you should also play interactive games with your cat. Cats enjoy games involving movement and like to be able to pounce, grab and bite. Pulling toys along on string is a safe way of playing with your cat.

which you fill with your cat's dried food) is also a good way to keep your cat active.

As your cat pushes the ball along pieces of his food fall out, occupying his time and providing something for him to "hunt".

For more information, see the pet care leaflet, How to play with your cat (C24).



Happy, healthy pets

Blue Cross advice leaflets are packed full of top tips to help owners with their pet questions. They cover a wide range of topics, from training a puppy to caring for an older cat. So if you need some support to help you with a pet problem, whether it's about a dog or a degu, we're here for you.

You can read and download our leaflets online at www.bluecross.org.uk

Visit our website to take advantage of all its features, including:

- blog posts from Blue Cross experts
- latest news
- events near you
- pets needing new homes

Or you can join in the chat on our online communities. Find us on Twitter and Facebook – just search for Blue Cross.





Blue Cross

Blue Cross has been dedicated to the health and happiness of pets since 1897. Abandoned or unwanted, ill or injured – we do what's needed to give every pet a healthy life in a happy home. We're a charity, so the more help you give us, the more help we can give pets.

How you can help

Blue Cross doesn't receive any government funding, so we rely on the generosity of pet lovers like you. There are lots of ways you can help the sick, injured and abandoned pets in our care, like making a donation, fundraising for us or leaving us a legacy.

Please call us on 0300 777 1897 or visit www.bluecross.org.uk



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