



Cats may be struck 'out of the blue' by a blood clot resulting in dramatic signs (sudden onset of lameness and pain) and potentially devastating damage. The back legs and the right front leg are most often affected and may be paralysed. This is an emergency, if you suspect that your cat has suffered a blood clot, you must seek veterinary help as soon as possible.

What is thromboembolism?

The term thromboembolism is made up of two words 'thrombo' and 'embolism'. A *thrombus* is a blood clot within the heart or in a blood vessel; an *embolus* is something that travels through the bloodstream, lodges in a blood vessel and blocks it. Therefore *thromboembolism* is the formation of a blood clot in the circulatory system (thrombus) that breaks loose and is carried by the blood stream until it lodges in a blood vessel and blocks it. The clot may block a vessel anywhere in the body. The more commonly recognised sites are the legs (most frequently the back legs), lungs (pulmonary embolism), the kidneys, the gastrointestinal tract and the brain (stroke).

What are the signs of a thromboembolism?

When a blood vessel becomes blocked, the tissue it normally supplies is deprived of a blood supply (and therefore oxygen). The signs will depend on the location of the affected blood vessel. In the cat clots most often get stuck in the main blood vessels providing blood supply to the back legs. One or both back legs may be affected. Your cat will be lame or might not be able to stand or use the affected leg or legs at all. The legs may be colder, the muscles may be firm and the nails and foot pads (if not pigmented) may be pale. In the beginning this condition is very painful and your cat might cry, look at or even chew the affected leg(s). The condition comes on very suddenly so a cat may go out of the house apparently completely healthy and later be found on the doorstep unable to stand on their back legs.

If a blood vessel in the lung is blocked, your cat may breathe more heavily, more rapidly and may start to breathe through its mouth. A clot in the brain can cause seizures or altered behaviour. Your vet will be able to identify this.

Thromboembolism is an emergency and it is important to get your cat to your vet as soon as possible.

How would my vet know if my cat has an aortic thromboembolism?

Your vet will have already a suspicion of a blood clot if your cat has suffered a sudden onset of these signs. However, cats suffering from back injuries or involved in a road traffic accident can show similar signs. When your vet examines your cat they will have a close look at its legs and will check for pulses in the legs. If these are absent, it is very likely that your cat has a blocked artery to one (or both) of its legs.

Why does my vet need to do so many tests on my cat?

A blocked artery is a serious problem. The reduced blood flow results in a build up of toxic substances in the tissue. This can be life-threatening and if the blood vessel to an organ is blocked the function of that organ will be impaired. This can cause changes in the blood which your vet can detect with some simple blood tests.

There are several reasons why blood clots form and although your cat may not have shown any other signs of illness it is likely that a severe, life-limiting disease is present. Your vet will investigate these to be able to provide the best treatment for your cat and to give you an indication of what the outcome is likely to be. Most blood clots in cats are the result of heart disease and your vet may take X-rays of the chest and/or perform an ultrasound investigation of the heart. Some tumours can also cause clots to form and, if your vet suspects this, they might also take X-rays and/or obtain an ultrasound of your cat's belly.

Once treatment is started long term monitoring will be required to check that treatment is being effective and well tolerated and to follow the progress of the underlying disease.

Can my cat be treated?

Treatment is possible in all cases but often it is not possible to resolve the clot. 'Clot-busting' drugs can

Feline aortic thromboembolism



only be used in cats shortly after development of the clot. These drugs can have severe side effects which might even result in the death of your cat so even if your cat is presented immediately for treatment your vet will want to explain all the options available and discuss if the use of these drugs is appropriate for your cat.

However, cats have extra blood vessels, which open up to provide an alternative blood supply to the legs if the main supply is blocked. This doesn't happen immediately and to buy the time for recovery your vet will provide your cat with pain-killers, drugs which prevent further clot formation, and medication for any underlying disease, which caused the clot in the first place.

As treatment progresses (which may take many weeks) your vet will let you know if your cat is improving as expected. Once cats are discharged from hospital they will stay on long-term treatment for the underlying disease (frequently these diseases cannot be cured). Clot-preventing medications will also need to be continued. These modern drugs are quite good and cause only very rarely cause bleeding.

Will my cat get better?

It depends on the disease which caused the clot in the first instance, and the possible organ damage caused by clots. Sadly, the outlook for cats with thromboembolism is not good. Around one-third of all affected cats do not recover from the initial episode (although in many cases this is because their owner elects for euthanasia). However, depending on the severity (and your vet can advise you on this) it is worth starting treatment to buy some time. If your cat improves over the first few days, there is a chance that further improvement will occur and your cat may recover and have a good quality of life. In cats that do recover, complete function of the affected leg(s) is often not achieved. As most of the underlying diseases which cause clots cannot be cured, your cat is at risk of developing another clot (even if on long-term treatment with anti-coagulation drugs) and around 50% of cats will develop a further thromboembolism.

Thromboembolism is a serious, life-threatening disease, which can come out of the blue. Affected cats will have a serious underlying disease which can be treated, but almost certainly not cured. If affected your cat will be on treatment for the rest of its life and is at risk of developing another clot. Your vet will be able to give you an idea of how badly affected your cat is and whether treatment is worth trying. Cats that do respond to treatment can have a good quality of life, and may live for several months or sometimes even years.

If you want any other information on health issues concerning your cat please contact your local Veterinary Surgeon.