

Offering your cat to be used as a blood donor

A variety of conditions can cause severe anaemia in cats and sometimes this results in the need for a life-saving blood transfusion. However, with blood transfusions comes the important requirement of finding a cat that is able to donate blood to the anaemic patient. This article focuses on the implications for the donor cat, and explains what owners can expect as far as the process of donating blood is concerned.

Unlike humans, a blood donor cat cannot give consent itself and it is the owners that need to give consent on its behalf. It is therefore very important that if you are considering volunteering your cat to be used as a blood donor, any potential risks to your cat are weighed up carefully against the potential gain for the cat that needs the blood. This is especially important in cats because there is a higher risk involved in donating blood, compared with the risk in people or dogs.

What are the risks for a cat of donating blood?

Most cats need to be sedated for blood donation and sedation does carry a small risk. The drugs used in sedation often lower blood pressure, and blood donation itself can lower blood pressure due to removal of blood volume. This can be a particularly important problem in the event of occult disease (that is, disease not evident to the owner, or to the veterinary surgeon on a routine health check). Occult disease can be present in potential blood donors and some such diseases (eg, kidney disease and, especially, heart disease) can be worsened if the cat is sedated and/or gives blood.

What can be done to minimise the risks of blood donation?

A series of checks should be performed to ensure that your cat is suitable for use as a blood donor.

General pre-donation checks and requirements

Your cat's weight and age, in addition to its health status, should be carefully assessed at the veterinary practice. Your cat should be greater than 4 kg (but not overweight), aged between 1 and 8 years (ideally, 1 to 5 years old), calm in temperament and not unduly stressed by visiting the vets. Your cat should be free of any illnesses and fully vaccinated (including against feline leukaemia virus [FeLV], unless your cat is indoor only). The ideal blood donor is an indoor-only cat, as this reduces the risk of transmission of infectious diseases to the recipient cat; however, it is not always possible to meet this requirement. Your cat should also not already have donated blood in the previous four weeks.

Giving your consent

The risks involved should be explained to you before you agree to volunteer your cat for blood donation. You will need to sign a consent form to say that you understand these risks and that you give consent for blood donation to proceed.



Health checks

Your cat must be completely healthy to donate blood and should never be used if there are any concerns about its health. It is important that you alert your vet to any previous health problems that your cat has had and to any other concerns you may have about your cat's health (however minor).

- The vet should take a **full clinical history** from you to ensure that any potentially important health problems are identified, and perform a **full physical examination** of your cat.
- Your cat's **blood pressure** may also be measured to ensure this is normal before sedation and blood collection.
- Ideally, a **heart ultrasound scan** would also be performed, to ensure that no occult heart disease is present.
- If the above checks show no abnormalities, **blood tests** should then be performed to assess your cat's red and white

blood cells (haematology) and kidney and liver function (biochemistry). However, if these blood tests have been performed recently (ie, within the past 6 months), it will only be necessary for your vet to recheck your cat's PCV (packed cell volume) on the day of blood donation. This involves a very basic blood test to ensure the donor has enough red blood cells to donate.

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● Testing for some **infectious diseases** that can be transmitted by transfusion (FeLV, feline immunodeficiency virus [FIV] and *Haemoplasma*) should additionally be performed prior to blood donation, to reduce the risk of transmitting these infectious agents to the recipient cat.

● **Blood typing** of the donor cat is also required to ensure that its blood is compatible with that of the recipient for safe transfusion.

Precautions during and after the procedure

- You should be asked to withhold food from your cat for 4–5 hours before sedation to reduce the risk of vomiting during sedation, which can cause inflammation of the oesophagus and/or pneumonia.
- Your vet should confirm that all the above pre-donation checks have been performed, with no abnormal findings.
- If your cat needs sedation for blood donation (most cats do, due to the time required to take the volume of donated blood, which is usually about 30 minutes), your vet should choose sedative agents that have a minimal effect on blood pressure.
- Following donation (where a significant volume of blood is collected) your cat should be put on a drip for a period of time (1 or more hours) to provide intravenous fluids. This will help to prevent lowering of blood pressure and any associated complications.
- Your cat should be kept warm and monitored closely after donation and sedation to ensure a quick recovery. It should be fed as soon as it is awake enough to be able to eat.



Common questions and concerns

If your cat has been thoroughly assessed, according to the criteria discussed above, and is considered to be a suitable donor, and all the necessary precautions are undertaken, the risk to your cat when being used as a blood donor is low. However there does remain a small risk despite undertaking all checks and precautions.

How do we know if our cat is at a low or high risk if used as a blood donor?

The maximum volume of blood taken will depend on your cat's body weight but will generally be about 40–50 ml. It would be dangerous to remove much more than this from an average-sized cat.

How much blood will be collected?

You should discuss the procedure with your vet as there may be some variation in the precise sequence of events. However, generally, after performing all the pre-donation checks, as described above, your cat will be admitted to the practice and usually sedated.

What will actually happen to our cat during the blood donation process?

An intravenous catheter should be placed in the leg to allow administration of intravenous fluids after blood collection. When the cat is fully sedated, the area on the underside of the neck around the jugular veins (from where the blood is collected) will be shaved; since both sides may be used to collect the blood the clipped area may be quite large. Local anaesthetic may be applied to this area. A needle is then inserted into a jugular vein and blood is drawn out with a syringe. As soon as blood collection is finished, intravenous fluids should be given via the leg catheter, to help replace the volume of blood taken. Your cat should then be monitored closely during recovery from sedation, kept warm and comfortable, and fed as soon as he or she is sufficiently awake.

Cats can usually be discharged 3–5 hours following blood donation, so provided your cat has fully recovered from the sedation and there are no concerns, he or she should be back home with you again the same day.

Will our cat need to stay at the vets overnight?

Don't rush your decision

It is important not to rush into the decision to volunteer your cat to donate blood – you must be comfortable with what is going to happen, and confident that all the necessary precautions are being taken. Discuss everything with your vet, and ask them to explain anything you are unsure about.

The FAB's veterinary division (the International Society of Feline Medicine) has produced guidance for veterinary surgeons on blood transfusions (available at www.isfm.net) and, if your vet has not already seen this, it may be a good idea to refer them to it.



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