BLOOD TRANSFUSION

Transfusion of blood and blood products in cats: information for owners

If you are considering volunteering your cat as a blood donor, or if your cat is receiving a blood transfusion, there are some things that you should consider.

REG CHARITY 1117342 (ENGLAND AND WALES)
PLACE FARM, CHILMARK ROAD, TISBURY,
WILTSHIRE, SP3 6LW, UK
© 2021 INTERNATIONAL CAT CARE Ltd.

international cat care

BLOOD TRANSFUSION

Why would a cat need a blood transfusion?

There are a variety of reasons a cat may need a blood transfusion. A cat may be suffering from anaemia (reduction in the number of red blood cells) which may be caused by:

- Bleeding (eg, due to a road traffic accident)
- Failure to make red blood cells (eg, due to bone marrow disease)
- Destruction of red blood cells for various reasons

Occasionally, other blood products are given to cats, such as plasma (blood without the red cells), or platelets (that clot the blood) for cats unable to clot their blood effectively.

Do cats have blood groups?

Cats do have blood groups, but they are quite different to human blood groups or dog blood groups. Cats can be type A, B or AB. Type A or B cats must receive a donation from a cat of the same blood type, or a potentially fatal reaction can occur. Type AB cats ideally receive type AB blood (but can have a type A transfusion if type AB blood is unavailable). It is recognised that there may be other, currently unknown, blood groups in existence and so 'cross-matching' is recommended. This is where blood from the donor and recipient cat are mixed in the clinic or at an external laboratory to test for a reaction before a transfusion is undertaken.

What are the risks to a cat donating blood?

Cats donating blood often need to be sedated for collection of blood, and all sedation procedures carry a small risk. Additionally, cats are very good at hiding signs of illness from their owners and their vets, and various conditions (eg, heart disease, kidney disease) can be made worse by sedation and blood donation.

This cat has pale gums because it is severely anaemic

What makes a suitable donor cat?

Not every cat can be a blood donor. The ideal blood donor cat:
- Is between 1 and 8 years of age
- Weighs more than 4.5kg (but is not overweight)
- Has a calm temperament and is not unduly stressed by the veterinary environment or transport to the clinic
- Is up to date with vaccination, worming and external parasite control
- Is currently not on any medications
- Preferably lives indoors (and so is less exposed to infectious diseases)
- Has no history of having received a blood transfusion
- Has normal results on blood tests
- Tests negative for feline immunodeficiency virus (FIV) and feline leukaemia virus (FeLV)
- Is negative for other infectious diseases (may vary according to geographic location)

Health checks for donors

At the time of donation, donor cats must be completely healthy. The vet will take a full history from the owner and carry out a full physical examination. Blood pressure may be measured. If abnormalities are suspected, a heart scan or blood test for heart disease may be performed. Blood tests will be carried out to assess overall health; in particular, measurement of red blood cell count or haemoglobin (the oxygen-carrying portion of the blood) will ensure the donor has adequate red blood cells to donate. All blood donors should have their blood type assessed and recorded to ensure the donor cat's blood is compatible with that of the recipient cat for the safest possible transfusion.

All potential blood donors should have a full physical examination to ensure they are well enough to donate

Considerations before offering your cat as a blood donor

It is important, as the owner of a suitable donor cat, that you are aware of the risks and give your consent for the procedure. You will need to sign a consent form. Don't rush the decision – you must be comfortable with what is going to happen, and confident that all the necessary precautions are being taken.

Other precautions during and after a donation include:
- Withholding food for 4–5 hours prior to the procedure to reduce the risk of vomiting during sedation
- Careful monitoring during sedation and afterwards until recovered
- In some clinics, provision of fluids into the vein or under the skin during or after donation

What to expect if your cat becomes a blood donor

If your cat is to donate blood, it will need to be at the clinic for a few hours, to allow it to be monitored before, during and after donation for any adverse effects. Your cat will have its hair clipped from its neck just under the chin, and on the front leg so that the veterinary staff can place needles to take blood samples and give sedation. These clipped areas may be quite large if both sides of the neck need to be accessed.

Your cat will be carefully health checked and weighed, and pre-donation blood samples will be taken. A catheter (small tube) will be placed into the blood vessels on the front legs for this purpose. The donation of blood itself will be taken from the jugular vein in the neck.

Cats are usually discharged 3-5 hours after blood donation when fully recovered from any sedation. If there are no concerns, your cat will be back home with you the same day. After sedation you may notice your cat is a little quieter, or conversely some cats can be excitable, but this should resolve after a good sleep. Cats can be fed a slightly smaller meal of their normal food that evening. If you have any concerns about your cat after blood donation you should contact the veterinary clinic straight away.

Blood tests are taken prior to blood donation to check the health of the donor

If your cat is to receive a transfusion

If your veterinarian is discussing your cat's need for a transfusion, it is likely that it is very unwell, and this can be a difficult time for owners. Occasionally the need for a blood transfusion is known before a procedure, such as a surgery that may be associated with blood loss. All cats receiving a blood transfusion must have their blood type recorded to ensure the donor is of the same type and they may be cross-matched (see page 2). Receiving a blood transfusion is not without risk, and the decision to provide a blood product should take into consideration the health and wellbeing of both the donor and recipient cat.

Cats can have a reaction to even the same type of blood and so must be monitored closely by veterinary staff. Reactions can range in severity from mild, necessitating slowing down of the rate of transfusion, to severe, prompting staff to stop the transfusion and administer emergency medications. In rare cases, reactions can be fatal. Transfusions must be given in the veterinary clinic and it is likely that your cat will need to be hospitalised afterwards to monitor its response to the transfusion and administer other treatments, as necessary.

While we all want the best for our cats when they are unwell, the decision to provide a blood product is not straightforward. You should feel you can discuss your concerns with your veterinarian and decide together if this is the most appropriate treatment for your cat.

Questions and concerns

How do I know if my cat is a suitable donor?

Have a look at the criteria listed on page 3 and discuss with your vet if you are considering putting your cat forward as a donor. Many clinics will have a 'register' of suitable donors to call upon when needed. As stress should be minimised, you could consider training your cat to tolerate the cat basket and transport, so it is familiar with the process of getting to the clinic. You could also discuss regular examinations with the veterinary team. Doing this from a young age and making it a positive experience means cats can be relaxed in the clinic environment.

How much blood is taken from a donor cat?

The volume of blood taken depends somewhat on the size of the cat but usually 40-50ml can be donated safely.

How do I know if my cat should receive a transfusion?

There are risks associated with receiving a blood or blood product transfusion so the decision should weigh up the advantages to your cat against the risks of a reaction, and also take into account the risks to the donor cat. Doing the best for our pets does not always mean advanced treatment, such as transfusion, is the right decision. Chat to your veterinary team about your concerns and make sure you fully understand why the treatment is required and the likely prognosis for your cat.

If my cat has donated once but seemed upset by the experience, must it donate again?

Absolutely not, it is your decision, and you know your cat. If you feel your cat was negatively affected by the experience it should not be used as a donor again.

I would like my cat to be a donor, but it has some underlying health conditions - can it still donate?

Donors must be completely healthy and not on any medication in order to donate. Any underlying health conditions would therefore prevent your cat being a donor, as health problems could be worsened by donation or by any sedation required for the procedure. Donation should not have any negative effect on donor cat's health or wellbeing.

Having previously received a blood transfusion and recovered, can my cat now become a donor?

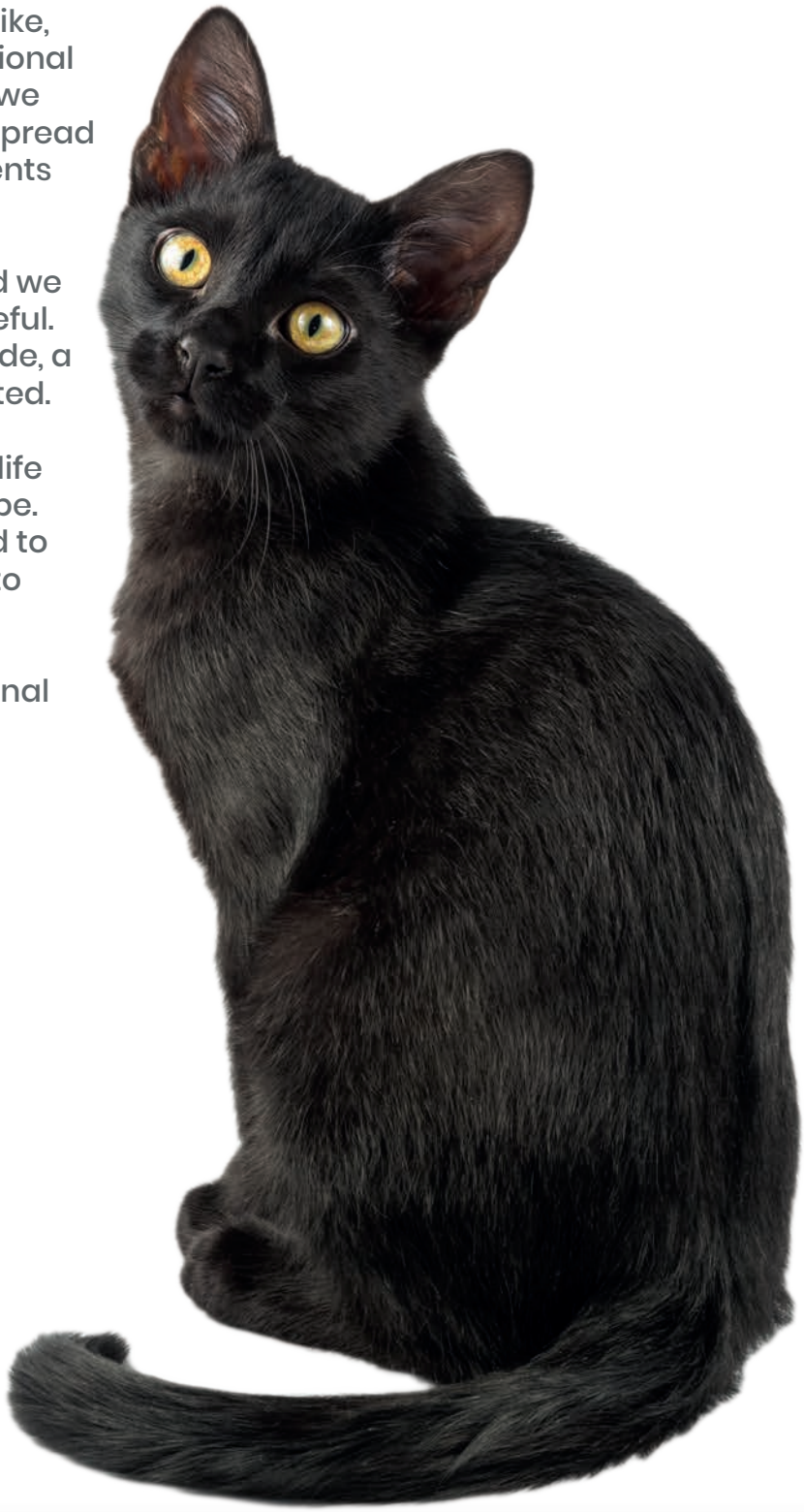
Cats that have previously received a donation may have antibodies to the blood they were transfused with, which they can then pass to the recipient cat, causing illness. So it is not possible for your cat to be a donor after having itself been a recipient.

Support our work

Our Cat Carer Guides, provided to inform and advise cat owners and carers alike, are carefully created by the International Cat Care team; all in the hopes that we can promote more awareness and spread the word about 'cat friendly' treatments for cats.

We all want the best for our cats, and we hope that you find this free guide useful. If you would like to show your gratitude, a donation would be greatly appreciated. Every gift goes to support our work towards a world in which each cat's life experience will be as good as it can be. If you would like to find out more, and to make a donation, please head over to **icatcare.org/support-us/donate**

Thank you from all of us at International Cat Care and on behalf of cats.



international cat care