



Blood transfusion

This information sheet from Great Ormond Street Hospital (GOSH) explains about blood transfusions, what they involve and why they might be needed.

What is a blood transfusion?

A blood transfusion is the process of giving blood donated by one person to another person who needs it.

Blood is made up of three different kinds of cells: red blood cells, white blood cells and platelets. Blood cells are held together and swim around in a yellowy liquid called plasma. A blood transfusion may contain just one type of blood component or all of them.

Refusal of blood or blood components may arise for many reasons, including religious beliefs or concern about blood-borne infections. Staff at Great Ormond Street Hospital (GOSH) will always try to work with children, young people and families who refuse blood or blood components – for further information please see our Refusing blood or blood products information sheet.

Why might my child need one?

Children and young people may need a blood transfusion for a variety of reasons:

- To replace blood lost during an operation or as a result of an accident
- To treat certain blood disorders, such as severe anaemia, sickle cell disease or thalassaemia

If your child is due to have an operation, a test called a cross-match will be done beforehand in certain circumstances. This tells us important information about your child's blood group so that we can make sure that we have the right type of blood available if they need it.

We will ask permission for your child to have a blood transfusion, usually as part of the consent process for the operation itself, but in an emergency situation, this may not be possible. If you have any concerns about your child having a blood transfusion, it is important that you discuss these with us as soon as possible.

What does a blood transfusion involve?

Donated blood is stored in plastic bags connected to a long plastic tube. This tube is connected to a cannula (thin plastic tube) which is inserted into a vein, usually in the back of the hand.



Blood travels down the tube, through the cannula into your child's bloodstream.

At GOSH, we use a system called Blood Track to make sure that all blood samples and donated blood is given to the right person at the right time. Your child's patient identification wristband contains a bar code that we will scan when taking a blood sample for testing, for instance, for cross-matching. We will also scan it before we give a blood transfusion. This is why it is so important to keep your child's patient identification wristband in place all the time.

Are there any risks?

All blood donated in the UK is thoroughly tested for infection by NHS Blood and Transplant. The people who donate blood are carefully selected and the blood they donate is checked to make sure it is suitable. While it is possible to have an allergic reaction to transfused blood, this is extremely rare. If your child has a reaction, this is easily treated using medication and slowing or stopping the transfusion. It is important to know that your child has had a blood transfusion as they will not be able to donate their own blood in the future.

Are there any alternatives?

Directed donations from a family member and autologous donations (that is, donating your own blood in advance of an operation) are no longer possible in the UK.

Some patients may have pre-operative anaemia and can be given oral iron or erythropoietin.

Cell salvage can be used during some operations which involves recovering blood lost during surgery and re-infusing it into the patient.

Further information and support

Several transfusion leaflets are available on the wards and from the transfusion practitioner.

Blood donation and transfusion is regulated in the UK by NHS Blood and Transplant. Visit their website at www.nhsbt.nhs.uk/ for further information. Information about donating blood is available at www.blood.co.uk.

Compiled by the Transfusion Practitioner in collaboration with the Child and Family Information Group

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www.gosh.nhs.uk