



A Patient's guide to

Blood Transfusions and Human Tissue Transplant

Why might I need a blood transfusion?

Blood transfusions are given to replace blood lost in surgery or to treat anaemia (lack of red blood cells).

If a significant amount of blood is lost during your procedure, the doctors will replace it as quickly as possible by blood transfusion. This will help ensure you do not suffer any of the weakening effects of blood loss.

If you have anaemia, the body does not have enough red cells to carry the oxygen that is needed. This causes feelings of tiredness or breathlessness. Blood transfusion is an effective treatment where a speedy improvement is needed. Treatment by medicines and iron or vitamins is just as effective in less urgent cases. A blood transfusion will only be recommended if you really need one.

If your red cell count is low before surgery, some tests may need to be done to find out why and some medicines can be given to increase it. Blood transfusion is more likely to be necessary if your red cell count is low before the operation.

Why might I need a tissue transplant?

Tissue transplants can be used to treat many conditions. You may need a transplant to replace diseased or damaged bone, tendons and nerve.

Are blood transfusion and tissue transplant safe?

In the UK all blood and tissue donors are unpaid volunteers who go through a strict screening process. Before donation, every effort is made to identify and exclude those who may be at risk of passing on infections.

In addition, every unit of donated blood is tested. Any blood or donated tissue that fails these rigorous tests is discarded and the donor advised. The testing process is regularly monitored to ensure that the highest standards are maintained.

The risks of having a blood transfusion/tissue transplant must always be balanced against the risks to your health of not having a blood transfusion.

What are the risks of transfusion?

- 1. Allergic reactions:** These are not uncommon, but they are usually mild and easily treated. Severe allergic reactions are rare.
- 2. Fever:** This is also not uncommon in patients who have been previously transfused. It is generally not severe and is easily treated. You should inform your doctor if you have had such a reaction with a transfusion in the past.
- 3. Haemolytic reactions:** These are rare and occur more commonly when your blood destroys the donor red blood cells. This is called Haemolysis. These reactions may sometimes be severe and result in bleeding and kidney failure, although treatment is usually effective in preventing such complications. Careful blood testing, blood preparation and administration usually prevent haemolytic reactions. This includes careful attention to identification procedures to ensure that the correct blood is given.
- 4. Transmissible infections:** All volunteer blood has been screened for infectious diseases. Specific tests are performed on blood for hepatitis, HIV, the AIDS virus and other infectious agents.

What are the risks of not having transfusions?

When you have lost so many red blood cells that your body is not getting enough oxygen, there is a risk of damage to vital organs such as the brain and heart. Transfusions may be necessary to prevent such damage. The point at which transfusion is necessary varies with different patients and different circumstances. Your doctor, surgeon or anaesthetist will recommend when transfusion is needed, based on each individual case.

What are the benefits of transfusion?

1. Blood transfusion reduces the symptoms associated with anaemia, for example, tiredness and breathlessness.
2. It replaces blood lost during surgery (rapidly if necessary).
3. Some operations cannot be carried out safely without using blood.

Possible alternatives to red cell transfusion:

1. Sometimes a blood alternative such as saline (a salt solution) could be given to you, instead of red cells, as a volume expander. Some patients may be suitable for treatment with blood enhancing medicines such as iron and Erythropoietin.
2. Sometimes blood salvage techniques may be used to recover blood lost at surgery.

Use of autologous blood following joint replacement: it may be possible to collect some of your own blood after surgery using a special drain. This filters your own blood which can then be returned to you.

For major surgery where bleeding can continue throughout the operation: gentle suction is used to salvage blood from the operating site. This is called intraoperative cell salvage (IOCS). This device also filters your blood which can then be given back to you through an intravenous cannula.

Benefits

- autologous blood minimises the need for another person's donated blood after surgery
- the blood is compatible – no need for cross matching
- there is no risk of blood transfusion reaction
- this type of transfusion may be acceptable to Jehovah's Witness patients
- it eliminates the risk of transmission of blood-borne disease

Risks

- infection
- not suitable for use if cancer or infection present at the operation site

Possible alternatives to tissue transplant

Some operations cannot be carried out without using a tissue transplant from another person. In other cases it is sometimes possible to use tissue from your own body or a synthetic graft.

Ask your doctor to explain why a tissue transplant is needed, or if there are any other treatments available.

Where can I get further information?

If you require further information please ask the doctors or nurses who are looking after you/your child.

Useful websites:

NHS Choices

www.nhs.uk/conditions/blood-transfusion/pages/introduction.aspx

UK Transfusion Services

www.transfusionguidelines.org.uk

NHS Blood and Transplant

www.nhsbt.nhs.uk/tissuedonation

If you have any comments about this leaflet or would like it translated into another language/large print, please contact the Clinical Governance Department on 020 8909 5439/5717.

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16-129 © RNOH

Publication date: July 2016

Review date: July 2018

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