

Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive - South

Having a Blood Transfusion

*Information Leaflet for
Patients and Guardians*



Cork University Hospital Group

Having a blood transfusion

During your hospital stay, you may need to have a blood transfusion. You may need blood as a planned part of your medical treatment or to replace blood lost if you have an operation.

What is a blood transfusion?

A blood transfusion is giving a patient blood or a component of blood such as red blood cells, platelets or plasma.

Red blood cells – The cells that carry oxygen around the body. Anaemia results from a lack of red blood cells.

Platelets – Very small blood cells that are essential to help the blood clot properly.

Plasma – The fluid part of the blood which contains many proteins including those necessary for blood clotting. Plasma transfusion may be required to control bleeding.

A transfusion is given through a small plastic cannula (plastic pipe) in a vein in your arm. The transfusion should not be painful but having a cannula in your arm may be a little uncomfortable.

Each unit of blood is usually transfused over two to four hours.

Why do patients need blood transfusions?

You will be given a blood transfusion only if you really need it. Your medical team will explain why you need blood.

Blood and blood products are used to replace blood loss or to correct abnormalities in the blood that cannot be corrected any other way. Common reasons for blood transfusions are:

- Blood loss because of an accident or surgery.
- Anaemia (which is not having enough of your own red blood cells).
- Blood disorders.

What steps are taken to ensure that the blood is safe?

The Irish Blood Transfusion Service has many safeguards on our national blood supply.

Our blood supply comes from blood donor volunteers. Volunteer donors are the safest source of blood. Before giving blood, every donor must answer detailed questions about his or her health and risk factors for diseases. Only people who pass this health screening can give blood. Every unit of blood that is donated is then tested for infections that can be transmitted through blood including:

- Hepatitis B virus (HBV).
- Hepatitis C virus (HCV).

- Human immunodeficiency virus (HIV) 1 and 2 (the causes of AIDS).
- Human T-Cell lymphotropic virus (HTLV) 1 and 2.
- Syphilis.

Are there risks involved in having a blood transfusion?

The serious risks of having a blood transfusion are rare. The risks are reaction to the blood or the transmission of infections. These risks are minimized by the careful selection and handling of blood by the Irish Blood Transfusion Service.

These risks must be balanced against the risk to your health of not having a transfusion. Many hundreds of lives are saved each year by blood transfusion. Investigations and operations can be performed safely because blood is available. When a blood transfusion is needed, the risks of not receiving blood outweigh the risks of transfusion.

Infections and viruses

Much publicity has been given to the risk of getting AIDS or hepatitis from a blood transfusion. It is important to put this risk in perspective. Daily activities such as road travel are associated with much greater risks than the risks of a blood transfusion when you need it.

The estimated risk of contracting a serious infection is:

- HIV – 1 possibility in 20 million units donated
- Hepatitis C – 1 possibility in 8.5 million units donated
- Hepatitis B – 1 possibility in 1.29 million units donated

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There is a risk of bacterial infection from blood transfusion. It is rare but can be fatal. The methods used for collecting and storing blood reduces the risks.

Variant Creutzfeldt-Jakob Disease (vCJD) is the human form of bovine spongiform encephalopathy (BSE or 'mad cow disease'). This disease was first identified in 1996. Cases of vCJD being transmitted through blood transfusion have been reported. To reduce the risk of transmitting vCJD through transfusion, the Irish Blood Transfusion Service introduced a number of precautions since 1999. These include:

- importing plasma from outside Europe, where BSE is rare.
- removing white cells from blood.
- deferring donors who lived in countries where BSE is prevalent.
- deferring donors previously transfused.

The risks of getting vCJD from a transfusion are very low and should not prevent you having a transfusion if you need it. These are the risks that we are aware of. However, there is always the risk of transmission of other currently unknown infections.

Matching blood

A patient could have a harmful reaction to a blood transfusion when the blood being transfused is not matched with the patient's blood. Matching the donated blood with a carefully identified sample from the patient prevents this reaction.

At the bedside, before any transfusion is started, hospital staff will check your identity and they will check the type of blood with the blood to be transfused. This is the reason why a nurse or midwife or doctor checks your name when they're taking a blood sample and prior to any transfusion.

Reactions

Your nurse or midwife will observe you carefully during a transfusion. Tell him or her immediately if you feel unwell or experience fever or chills during or after a transfusion. If you have a reaction to blood, it does not mean that there is any cause for concern. As a precaution, the transfusion will be stopped and a doctor will be called. The doctor will treat your symptoms and investigate the reaction.

All significant reactions to blood transfusion are reported to the National Haemovigilance Office at the Irish Blood Transfusion Service and the Health Products Regulatory Authority (HPRA).

Transfusion after a reaction

If you have a reaction to a blood transfusion and you need another transfusion, your doctor may prescribe a drug to take prior to the transfusion to prevent a further reaction.

The most important blood groups are the ABO and Rh groups. These are always matched prior to transfusion. However, it is impossible to completely match all the parts of a donor's blood with those of the patient.

Some months after a transfusion, some patients may develop antibodies to the transfused reds cells. These antibodies will not make you ill. However, they can be important for future transfusion or in pregnancy.

Can my relatives or friends donate blood for me?

When relatives or friends donate blood, it is called directed donation. Research has shown that such transfusions are not any safer than carefully selected voluntary donations and can be associated with extra risks. Directed donations are not available in Ireland or in most European countries.

Further Information

This leaflet is intended for patients, for parents of minors or for guardians of patients who may receive a blood transfusion.

You can discuss any concerns you have about the blood transfusion with your doctor.

Any additional information about blood donations is available from The Irish Blood Transfusion Service at Telephone 1850 731137