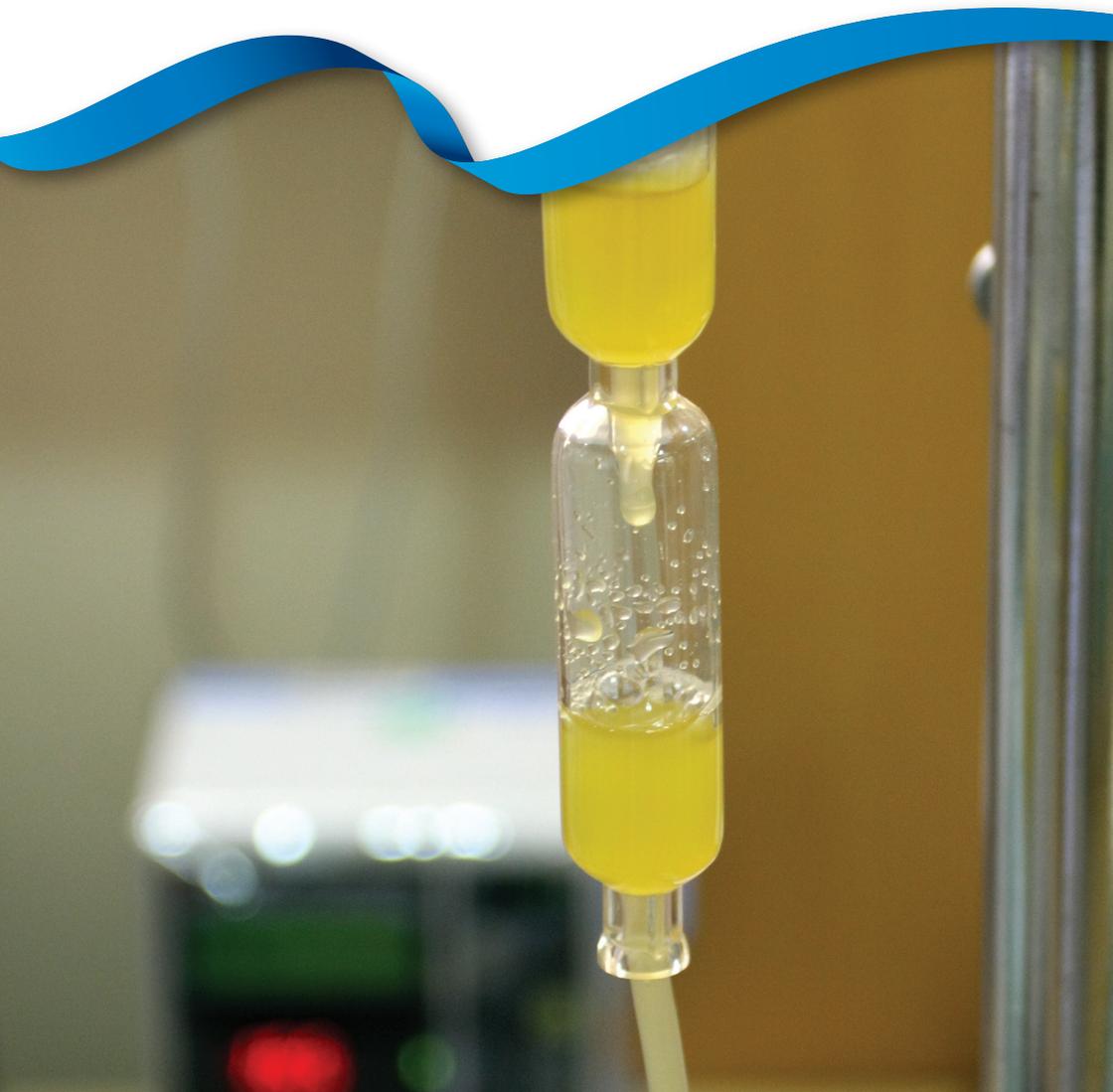


# Will I need a platelet transfusion?

Patient information



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## What are platelets?

Platelets are tiny fragments in blood that are produced in the bone marrow. They play an essential role in controlling bleeding. When damage such as a cut or a wound occurs to the blood vessels, platelets are attracted to form a plug at the damaged site and together with other proteins in the blood, form a blood clot. Formation of a blood clot stops the bleeding, and allows the cut or wound to begin to heal.

Platelets are either collected from a single donor or produced by combining platelets taken from four separate blood donations. Platelet bags from single donors are collected using a special machine, which separates the platelets from the rest of the blood. After separation, platelets are stored at room temperature between 20 and 24°C. Each bag contains about 250mls (quarter of a litre) and takes between 15-30 minutes to transfuse.

## What causes a low platelet count?

A low platelet count can be caused either by the poor production of platelets in the bone marrow (for example due to diseases such as leukaemia), or where the life of platelets is reduced (for example in the case of massive blood loss due to an injury, a major operation or severe infection).

## Why do I need a platelet transfusion?

Platelet transfusions are used to treat bleeding in patients with low platelet counts, or to prevent bleeding in patients who are about to have an operation or a procedure. They are also used to prevent bleeding in patients with very low platelet counts who are neither bleeding or about to undergo surgery or a procedure.



## How will my platelet transfusion be given and how will I feel?

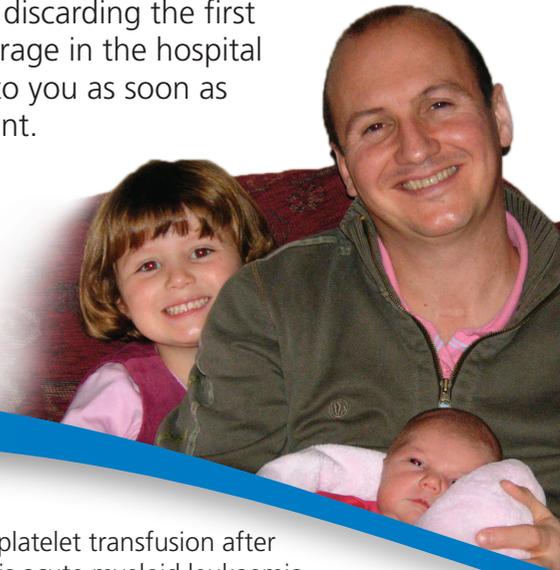
A platelet transfusion is given through a narrow tube directly into a vein in the arm. Most people do not feel anything unusual whilst receiving a platelet transfusion. A few people may develop reactions such as skin rashes, shivering or an increase in body temperature. This is usually mild and easily treated with paracetamol or by slowing down the transfusion.

A very small number of people who receive platelets regularly, might fail to show a rise in platelet count despite transfusion. This condition is known as being 'refractory' to platelets, and might be due to infection, medications or the body developing antibodies which destroy the transfused platelets. If you are refractory to platelets, this is identified by the medical staff, and in the future you might require platelets from a specific donor matched for your tissue type.

## Are there any risks from infections?

The risk of getting an infection from a platelet transfusion is very low. However, because platelets are stored at room temperature, there is a very small risk of bacterial growth. This risk is reduced by careful disinfection of the donor's arm and discarding the first 30mls of each donation, careful storage in the hospital laboratory and giving the platelets to you as soon as they arrive in the ward or department.

To reduce this risk even further, all platelet components are tested for bacteria. If the test is positive in the first 48 hours, the platelets will not be issued by the blood service.



Jon, pictured here with his girls, needed a platelet transfusion after his intensive course of chemotherapy for his acute myeloid leukaemia.

After this time, they will have been sent to the hospital and may have already been given to a patient. Occasionally, patients may be informed that they have received a transfusion where the test is positive. A positive test needs further investigation and this almost always shows the platelets were not contaminated with bacteria.

The risk of viral infections has almost been eliminated as a result of careful donor selection and testing. It is calculated that hepatitis B might be passed on by fewer than 1 in 1.3 million blood donations. To put this in perspective, you are more likely to die in a gas incident (fire, explosion or carbon monoxide poisoning) than to get hepatitis B from a blood transfusion. (Health and Safety Executive, 2010 <http://www.hse.gov.uk/education/statistics.htm#various>). The risk is many times smaller for HIV (1 in 6.5 million) and hepatitis C (1 in 28 million) (figures published October 2012).

The risk of getting variant Creutzfeldt-Jakob Disease (vCJD) from a platelet transfusion is extremely low. Each year, approximately 2.5 million units of blood components are transfused in the United Kingdom and there have been only a handful of cases where patients are known to have become infected with vCJD. More information on variant CJD can be found here:

<http://www.nhs.uk/conditions/Creutzfeldt-Jakob-disease/Pages/Introduction.aspx>

## **What if I have worries about receiving a platelet transfusion?**

If you have any concerns you should discuss them with your doctor, nurse or midwife. Like all medical treatments, a platelet transfusion should only be given if it is essential. Your doctor will balance the risk of you having a platelet transfusion against the risk of not having one.

Note that as a precautionary measure to reduce the risk of transmitting vCJD, people who have received a platelet transfusion since 1980 are not currently able to donate blood.

## Additional information

If you are interested in finding out more about blood transfusion and have access to the internet, you may find the following websites useful:

### NHS Choices

[www.nhs.uk/Conditions/Blood-transfusion/Pages/Introduction.aspx](http://www.nhs.uk/Conditions/Blood-transfusion/Pages/Introduction.aspx)

### UK Transfusion Services

[www.transfusionguidelines.org.uk/index.aspx](http://www.transfusionguidelines.org.uk/index.aspx)

This leaflet was prepared by NHS Blood and Transplant in collaboration with the National Blood Transfusion Committee. Healthcare professionals can obtain further supplies by accessing [ww3.access-24.co.uk](http://ww3.access-24.co.uk) and entering their Regional Transfusion Committee code.

If you do not have a code please call **01865 381042**.

The public can get copies of this leaflet by calling **01865 381042**.

NHS Blood and Transplant (NHSBT) is a Special Health Authority within the NHS, and provides the blood that patients receive. In order to plan for future blood demands, information about which patients receive blood needs to be gathered. We may ask a hospital or GP to provide limited medical information on a sample of patients who have received blood transfusions.

Any information that is passed on to NHSBT is held securely, and the rights of these patients are protected under the Data Protection Act (1998).



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## **NHS Blood and Transplant**

NHS Blood and Transplant (NHSBT) saves and improves lives by providing a safe and reliable supply of blood components, organs, stem cells, tissues and related services to the NHS, and other UK health services.

### **For more information**

**Visit** [nhsbt.nhs.uk](https://nhsbt.nhs.uk)

**Email** [enquiries@nhsbt.nhs.uk](mailto:enquiries@nhsbt.nhs.uk)

**Call** **0300 123 23 23**