

# Will I need a platelet transfusion?

Patient information



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## Important information for all patients who may need a platelet transfusion

**Like all medical treatments, a platelet transfusion should only be given if it is essential. Where possible, your doctor, nurse or midwife (or other healthcare professional) should discuss the risks and possible alternatives with you, before obtaining your consent for the procedure.**

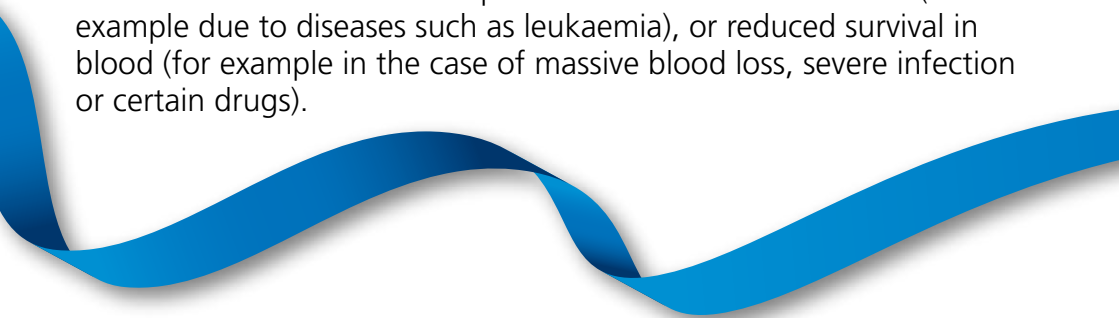
## What are platelets?

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

Platelets for transfusion are either collected from a single donor or produced by combining platelets taken from four separate blood donations. Platelets from a single donor are collected using a special machine which separates platelets from blood. To make sure the platelets can work effectively, they must be stored at between 20 and 24°C on an agitator and must be used within 7 days of collection.

## What causes a low platelet count?

The number of platelets in the blood is measured and referred to as a platelet count. A platelet count below normal expected values can be either because of reduced production in the bone marrow (for example due to diseases such as leukaemia), or reduced survival in blood (for example in the case of massive blood loss, severe infection or certain drugs).



## Why might I need a platelet transfusion?

Platelet transfusions are used to stop bleeding in people with low platelet counts or prevent bleeding when they are about to have an operation or a procedure. They are also used to prevent spontaneous bleeding in those with extremely low platelet counts.

## Risks associated with a platelet transfusion

The risk that a platelet transfusion will cause severe harm or even death is very low, but should be discussed with you by your healthcare professional. One of the most important checks for having a safe transfusion is to make sure you get the right platelets. You can help reduce the small risk of being given the wrong platelets by asking your healthcare professional to check that it is the right bag for you.

You must be correctly identified at each stage of the transfusion to make sure that you get the right platelets, including when blood samples are taken before the transfusion. **If you are an in-patient, wearing an identification band with your correct details is essential.** You will be asked to state your full name and date of birth and this will be checked against your identification band. If you have your blood samples taken as an out-patient, you will not usually be given an identification band to wear, but it is still important that the staff ask you your full name and date of birth to confirm they are taking the samples from the right person. It is **alright** to remind the healthcare professional to ask you for this information.



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

Because platelets are stored at room temperature, there is a very small risk of bacterial growth in a platelet transfusion. This risk is reduced by careful cleaning of the donor's arm and by discarding the first 30mls of each donation, strict temperature-controlled storage in the hospital laboratory and giving the platelets to you as soon as they arrive in the ward or department.

The risk of bacteria in a platelet transfusion is also reduced by taking samples from platelets and testing these samples for bacteria. Monitoring of the samples continues throughout the life of the platelets. If at any point this test becomes positive, the platelets will be removed from use and further investigation performed. If the platelets have already been transfused, the patient's medical staff will be informed and the patient assessed. In most cases when the screening test is positive, later more detailed analysis fails to confirm growth of bacteria and shows that the platelets were safe to transfuse.

Compared to other everyday risks, the likelihood of getting an infection from a platelet transfusion is very low. All blood donors are unpaid volunteers, and the risk of an infected unit entering the UK blood supply continues to decrease<sup>1</sup>. Donors and blood donations are screened for a number of infections which can be transmitted through blood, but it is not practical or even possible to screen all donations for all infections, therefore, there will always be a small risk associated with having a blood transfusion.

The risk of getting variant Creutzfeldt-Jakob Disease (vCJD) from a platelet transfusion is extremely low. Each year, approximately 2.6 million units of blood components are transfused in the UK and there have been only a handful of cases where patients are known to have become infected with vCJD. More information on vCJD can be found on the NHS Choices website:

[www.nhs.uk/conditions/Creutzfeldt-Jakob-disease/Pages/Introduction.aspx](http://www.nhs.uk/conditions/Creutzfeldt-Jakob-disease/Pages/Introduction.aspx)

Further information on the risks of transfusion can be found at:

[www.shotuk.org/home/](http://www.shotuk.org/home/)



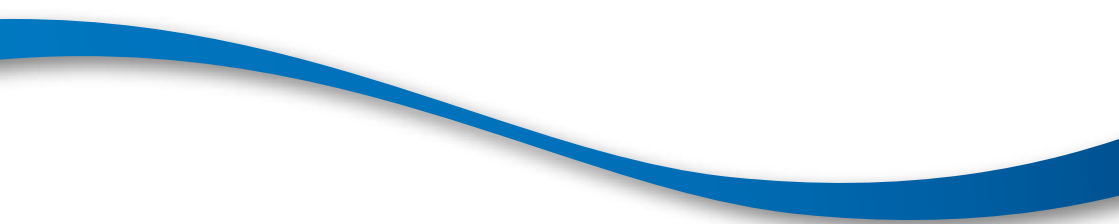
## How will my platelet transfusion be given and how will I feel?

A platelet transfusion is usually given through a tiny tube directly into a vein in the arm. Each bag of platelets contains about 250mls and takes between 15-30 minutes to transfuse. Most people receiving a platelet transfusion do not feel anything unusual. You will be observed before, during and after your platelet transfusion; if you feel unwell during or after it you should inform your healthcare professional immediately. Some people may develop a temperature, chills, a rash or breathing difficulties. These reactions are usually mild and are easily treated with medicines such as paracetamol or antihistamines, or by slowing down or stopping the platelet transfusion. Severe reactions to platelets are extremely rare. If they do occur, staff are trained to recognise and treat them.

A very small number of people who receive platelets regularly might not show a rise in their platelet count following a transfusion. This is known as being 'refractory' to platelets, and might be due to infection, medications or your body developing antibodies which destroy the transfused platelets. If you are refractory to platelets this will be identified by the medical staff and in the future you might require platelets which are matched and from specific donors.

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

If you are worried or have any questions, please talk to your healthcare professional. Many hospitals have a dedicated Hospital Transfusion Team and if appropriate, they may be able to come and discuss your concerns with you.



## Patient Blood Management (PBM)

PBM is a standard of care that focuses on measures to reduce or avoid the need for a blood transfusion if possible. However, if a transfusion is needed, it makes sure that patients are given only what they really need and that the transfusion is given safely. There is a NHS Blood and Transplant (NHSBT) PBM Patient Information Leaflet available that explains things in more detail so please ask your nurse or doctor for a copy.

Recent studies suggest that if PBM is followed and transfusion is reduced or avoided, patients have fewer complications, faster recoveries and shorter stays in hospital.

During your treatment, a transfusion of red cells or other blood component such as fresh frozen plasma may be required. If so, there are other patient information leaflets available from NHSBT such as "Will I need a blood transfusion?" that may help explain things for you. Please ask your healthcare professional for a copy of the other leaflets that are suitable for your proposed treatment pathway.

## Additional information

As a precautionary measure to reduce the risk of transmitting vCJD, people who have received a transfusion of blood or any blood component since 1980 are currently unable to donate blood or blood components.

If you are interested in finding out more about 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)

### **NHS Blood and Transplant:**

[www.nhsbt.nhs.uk/what-we-do/blood-transfusion/](http://www.nhsbt.nhs.uk/what-we-do/blood-transfusion/)



## Reference

1. Public Health England (2014) Bloodborne infections in blood, tissue and organ donors (BIBD): guidance, data and analysis.

See: <https://www.gov.uk/government/collections/bloodborne-infections-in-blood-and-tissue-donors-bibd-guidance-data-and-analysis>.

We would welcome your feedback and comments on this leaflet. You can contact us in the following ways:

### By post to:

Customer Services, NHS Blood and Transplant  
Part Academic Block – Level 2, John Radcliffe Hospital  
Headley Way, Headington, Oxford, OX3 9BQ

**By email to:** [nhsbt.customerservice@nhsbt.nhs.uk](mailto:nhsbt.customerservice@nhsbt.nhs.uk)

**Or by phone:** 01865 381010

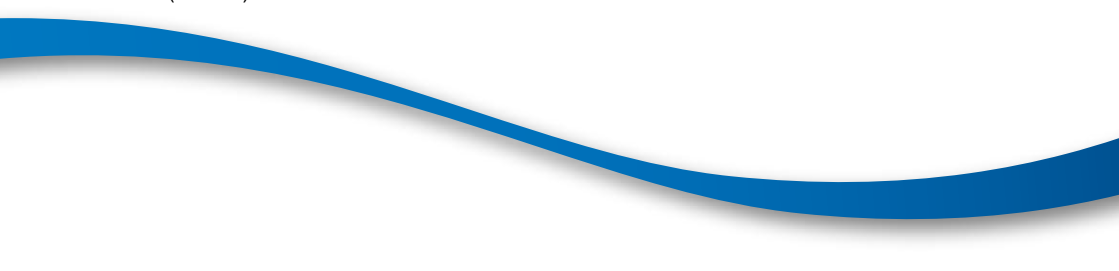
This leaflet was prepared by NHS Blood and Transplant in collaboration with the National Blood Transfusion Committee. Further supplies can be obtained by accessing

<https://hospital.nhsbtleaflets.co.uk>

Individual copies of this leaflet can be obtained by calling **01865 381010**.

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.

We manage the UK-wide voluntary donation system for blood, tissues, organs and stem cells, and turn these donations into products that can be used safely to save lives or radically improve the quality of people's lives.

We rely on thousands of members of the public who voluntarily donate their blood, organs, tissues and stem cells. Their generosity means each year we're able to supply around 2 million units of blood to hospitals in England and 7,500 organ and tissue donations within the UK, which save or improve thousands more people's lives.

### **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**