



Blood Transfusion: receiving your own blood by cell salvage - information for mothers

Labour and delivery is normally associated with a small amount of blood loss. In most cases a blood transfusion will **NOT** be required and your body will make new blood cells over a period of a few weeks.

However, in a small number of cases your anaesthetist or obstetrician may recommend a blood transfusion where bleeding is heavy during or after delivery of your baby. Certain conditions such as placenta praevia (a low lying placenta) make blood loss more likely.

Receiving a blood Transfusion

There are now two methods of giving blood to you:

- one is receiving blood from a healthy donor
- the other is to receive your own blood back, this is called **cell salvage**

We are now able to offer cell salvage for most planned caesarean sections where we anticipate higher than normal blood loss.

In emergency cases we may be able to offer you cell salvage if we have a practitioner trained in cell salvage available.

Receiving red blood cells given by a donor

Until recently this was the only method of receiving a blood transfusion.

Healthy volunteers, who have been carefully screened for infections, donate blood. It is stored for a few weeks and matched against your own blood, to make sure it is compatible, before it is issued for you. Then the doctor or midwife who gives you the blood checks your identity carefully because there can be serious side effects from getting the wrong blood.

Recently fewer people are donating their blood so in some instances blood is in short supply. There is more information about donor blood transfusion in the leaflet 'Blood Transfusion – Receiving a Blood Transfusion'.

Receiving your own blood- cell salvage

When bleeding occurs during an operation such as a caesarean section it is possible to collect the blood and pass it through a special machine - the cell salvage machine. This washes your blood to remove any unwanted substances such as amniotic fluid. Your blood can then be given back to you as red blood cells.

We are usually able to offer this service to patients where we anticipate larger amounts of blood loss during planned caesarean sections. However, we may not be able to use cell salvage in emergency cases as it requires the presence of specially trained staff.

Information for Patients

In addition we are only able to give the blood that has been collected back to you if there has been enough collected to process through the cell salvage machine. If there is minimal blood loss then it will be discarded according to the normal theatre practice.

Cell salvage only collects the red blood cells. In the event of a large blood loss you may still need to be given other blood products from a donor eg plasma components.

Risks of cell salvage technique

Cell Salvage remains a very safe procedure with very few adverse events or reactions reported.

The main potential risk from the use of cell salvaged blood in obstetrics is rhesus immunisation. This only applies to rhesus negative mothers who have rhesus positive babies and can be prevented with anti-D treatment by injection after delivery.

Some people have been concerned about the possibility of amniotic fluid embolism (AFE) when cell salvage is used in caesarean section patients.

This is a condition where foetal cells enter the mother's circulation and can cause serious reactions, lung injury and death. This can occur naturally during normal labour and delivery but is extremely rare. There have not been any cases of AFE in obstetric patients who have received cell salvage blood.

Cell Salvage and Jehovah's Witnesses

The Elders of the Jehovah's Witness community have approved cell salvage as a way of receiving blood.

However, this will be discussed with each individual patient so that they are able to make an informed choice about this.

The next section of this leaflet contains some detailed facts and figures. You may choose not to read this but instead to ask questions about any areas that concern you. A health care professional such as a midwife, obstetrician or anaesthetist will be able to help you.

Detailed information on the risks of blood transfusion

Risks of donor blood

Around 2.6 million blood components are transfused each year in the UK. The risks associated with blood transfusion in the UK are very rare

The UK Serious Hazards of Transfusion report in 2022 analysed reports of serious side-effects of blood transfusion in the UK.

These are as follows:

Overall risk of death	1.57 in 100,000 blood components issued
Risk of morbidity	1 in 15,420 blood components issued
Risk of hepatitis B	1 in 1 million
Risk of hepatitis C	Less than 1 in 10 million
Risk of HIV	Less than 1 in 10 million

Information for Patients

Additional Sources of Information:

The National Institute for Health and Clinical Excellence (NICE) have produced a patient information leaflet on cell salvage in obstetrics, available at: [IPG144 Intraoperative blood cell salvage in obstetrics – information for the public \(nice.org.uk\)](#).

Our commitment to confidentiality

We keep personal and clinical information about you to ensure you receive appropriate care and treatment. Everyone working in the NHS has a legal duty to keep information about you confidential.

We will share information with other parts of the NHS to support your healthcare needs, and we will inform your GP of your progress unless you ask us not to. If we need to share information that identifies you with other organisations we will ask for your consent. You can help us by pointing out any information in your records which is wrong or needs updating.

Additional Sources of Information:

Go online and view NHS Choices website for more information about a wide range of health topics <http://www.nhs.uk/Pages/HomePage.aspx>

Department address and contact information:

If you contact the Antenatal clinic at Birmingham Heartlands Hospital on Tel 0121 424 0730 the midwives will be able to put you in contact with a doctor who will be able to give you further information.

If you require this information in another format, such as a different language, large print, braille or audio version please ask a member of staff or email interpreting.service@uhb.nhs.uk