

Babies requiring blood transfusion

What is a blood transfusion?

A blood transfusion is when donated blood is given to your baby. It is given into a vein, using a soft plastic tube. A typical transfusion for a baby takes about three hours but it can be given more quickly (or slowly) if needed.

Why would my baby need a blood transfusion?

Anaemia is a condition that occurs when there are not enough red blood cells in the body. This is measured as a low level of haemoglobin in your baby's blood. Babies can become anaemic for several reasons:

- Sometimes blood is lost before or around the time of birth
- For some premature and sick babies, the red blood cells break down faster than normal and they are unable to replace them at the same rate

- Shortly after birth, there is a drop in the level of the hormone that stimulates the body to make red blood cells. This normal fall in the haemoglobin level does not usually cause symptoms. However, in premature or sick babies, the level can drop lower and for longer, resulting in symptoms of anaemia
- Blood loss associated with routine blood sampling. Anaemia can occur depending on the number of tests that your baby may need to diagnose problems or check on their response to treatment. Although very small samples are taken, the amount can add up over time and contribute to the need for a transfusion
- Blood loss associated with surgical procedures.

Why are red blood cells so important?

Red blood cells are essential for carrying oxygen around the body and oxygen is critical for the function of the body's organs. Babies who are anaemic may appear pale and sleepier than normal. Anaemic babies may not be able to feed well, and some become more short of breath. We aim to treat anaemia before it causes severe problems.

How should anaemia be treated?

Babies can be started on an iron supplement by mouth or via their feeding tube from about two weeks of age. If your baby has a particularly low haemoglobin level, needs surgery, or is developing symptoms, a red blood cell transfusion may be required. If you are being asked to provide consent for a



transfusion, the doctors caring for your baby recommend that a transfusion is now needed.

Are there other types of transfusions my baby might need?

Some babies need a transfusion of blood components (other than red blood cells) which are given in very specific situations. If your baby needs them, the reasons will be discussed with you in detail.

Other blood components that sometimes need to be transfused include:

- **Platelets:** these are tiny cells in the blood that help prevent and stop bleeding. If your baby has a low platelet count and is bleeding, or at high risk of serious bleeding, he/she will be given a platelet transfusion
- **Plasma:** this is the yellow liquid that surrounds the red blood cells and platelets. It also contains substances that help blood to clot. A transfusion of plasma, or in some cases, components of plasma is most often used with or without platelet transfusions to help the blood to clot.

Are transfusions safe?

As a result of ongoing advances in collection and testing, the donated blood supply in Australia is safer than ever before, and one of the safest in the world. The decision to transfuse, however, must still be made with great care because transfusion is not (and never will be) risk-free. Your baby's doctor has weighed up the risks and benefits of transfusion in your baby's situation.

In Australia many precautions are taken to ensure blood is as safe as possible:

- Each blood donor is an unpaid volunteer whose health is carefully checked
- Each donor is asked a set of questions to help rule out anyone who may pass on an infection
- Every blood donation is tested for the presence of certain infections including hepatitis B, hepatitis C and HIV (the virus that causes AIDS)
- Any blood donation that fails the test is discarded.

The most common problem we encounter with blood transfusions in babies is when there are problems with the IV line. If this occurs, there can be temporary swelling or bruising around the IV site.

Occasionally, your baby's lung function may become worse during, or after, a transfusion. This can be due to the additional fluid volume, and treatment with medication may help. A much less common problem called transfusion-related lung injury has been reported in older patients and it may occur, rarely, in babies.

What happens when my baby has a blood transfusion?

It is critical to ensure your baby receives the right blood, so clinical staff will follow strict checking procedures. Your baby must wear an identification band. Clinical staff will check your baby's full name and date of birth on the identification band and the blood pack to ensure that your baby receives the right blood. If you are present at the time the transfusion is started you are welcome to participate in this checking process.

How will my baby feel during the blood transfusion?

Most babies feel no differently during their transfusion. A blood transfusion is usually given over three to four hours. Your baby will be carefully monitored during and after the transfusion. Please speak to the staff if you have any concerns about your baby.

Can my baby receive a blood transfusion without my consent?

If your baby requires a transfusion, and it is not urgent, you will be asked to give consent. Your baby's doctor will obtain written consent from at least one parent. However, your baby's doctor can give a blood transfusion to your baby without consent when the transfusion needs to commence immediately to save your baby's life.

What if I have other worries about the blood transfusion?

Please speak to your baby's doctor or nurse about any concerns you may have, no matter how trivial you think they may be.

Can I donate my blood to my child?

There are reasons why this is strongly discouraged. The risk of blood from unrelated donors provided by the Australian Red Cross Blood Service (ARCBS) is already extremely low. There are also increased risks of various transfusion reactions with blood from relatives and it is better to avoid these where possible. The ARCBS no longer supports directed donations from relatives except in the case of very rare blood group compatibility problems.

Further information

If you are interested in finding out more about blood transfusions please visit:

www.transfusion.com.au

When looking at this, or other websites, please keep in mind that the types of transfusion reactions (e.g. fevers or chills) that occur in some adults during blood transfusion are very rare in babies. If a baby does experience these problems, clinical staff will urgently assess the situation.

Please speak to your baby's doctor or nurse if you still have any questions after reading this brochure.

How can I become a blood donor?

If you would like to help others by becoming a blood donor, please call 13 14 95 or visit www.donateblood.com.au

Acknowledgements

This information sheet has been adapted for parents of babies in Mater Mothers' Neonatal Critical Care Unit, from the Australian and New Zealand Society of Blood Transfusion's '[Children receiving a blood transfusion: a parent's guide](#)'.

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