

Blood and blood product transfusion

The aim of this leaflet is to provide you with some general information about blood and blood product transfusion. If you have any concerns or need further information about blood and blood products transfusion, please talk to a member of your health care team.

What is a blood or blood product transfusion?

Transfusion with blood (red cells) or a blood product (platelets, fresh frozen plasma, cryoprecipitate and plasma derived products) is a common and safe procedure. Perth Children's Hospital administers more than 2,500 blood transfusions every year. A transfusion involves an infusion of blood or a blood product previously collected from one person (donor), which is infused through a small tube (drip) into your child's bloodstream.

What are blood and blood products and why might my child need a transfusion?

Blood consists of several components (parts) and each has a different purpose for transfusion.

Red cells

- Given to replace blood lost during surgery or due to a serious injury.
- Given to treat significant anaemia that is causing health problems.
- May be needed if your body can't produce adequate red blood cells due to illness or as a side effect of treatment.

Platelets

- May be required to stop or prevent bleeding if your platelet numbers are too low or aren't working properly.

Fresh frozen plasma and cryoprecipitate

- These blood components are used to replace clotting factors and work with platelets to help blood to clot.

Plasma derived products

- They are mainly used to replace missing or dysfunctional elements of the clotting or immune systems. Each preparation has a different purpose. Ask your doctor for information about the specific product that will be used in your child's care.

Some children require a single transfusion and others need many. If your child needs a transfusion as part of their treatment, the doctor will explain why and ask for your consent (permission). You should be given information about the benefits and risks in your child's situation. Be sure to ask questions if there is any part of the treatment that you do not understand. In an emergency, the doctor may have to give your child a transfusion urgently and there may not be time to have this discussion with you first.

Where does the blood come from and is it safe?

The Australian Red Cross Lifeblood collects blood and blood products for transfusion in Australia from voluntary, unpaid donors. There are many procedures in place to ensure the blood and its products are safe. Once collected, blood is tested extensively for infections and viruses including Hepatitis B and C, Syphilis, Human T-Lymphocytic Virus (HTLV) and the Human Immunodeficiency Virus (HIV). If there are any problems identified with the donated blood, it is destroyed. Despite screening of all blood donations, the risk of transferring infectious agents cannot be ruled out. However, the risk is extremely low at less than one in one million transfusions.



What are some of the risks of transfusion?

Most transfusions are problem free. The most common reactions include:

- fever (high temperature)
- rash, itching and/or hives (raised reddened skin)
- headache or nausea.

Very rarely, problems can occur and in severe situations can cause serious harm or possibly death. Rare risks include receiving the wrong blood which could cause kidney failure or breathing difficulties. Your child will be monitored closely during the transfusion. If your child feels unwell at any time it is important that you tell a nurse immediately.

What are the alternatives to blood and blood product transfusions?

In some circumstances there may be alternatives to blood or blood product transfusion and it is important for you and your doctor to consider these options. Alternatives may include taking medicine to help the body replace its own blood, or collecting blood lost during a surgical procedure and returning it to your child.

How is a transfusion given?

Before the transfusion begins, two nurses will check that the details on your child's wristband match those on the blood or blood product exactly (their full name and date of birth). You may be asked to participate in this check. This will happen every time your child needs a transfusion. It is dripped into a vein, usually in your child's arm or hand using a plastic tube. A blood transfusion is usually administered over less than two hours but can take up to four hours.

Need more information?

If you or your child are interested in finding out more about blood and blood product transfusions and have access to the internet, you may wish to visit the following websites:

- Australian Red Cross Lifeblood – www.lifeblood.com.au/patients-recipients/blood-plasma-platelets/receiving-a-transfusion
- Blood Watch – Consumer information available in languages other than English cec.health.nsw.gov.au/safety-essentials/blood-management/transfusion/guide

For more information about blood and blood product transfusion, speak to your child's doctor.





Government of Western Australia
Child and Adolescent Health Service

Medi Alert

Blood Products Transfusion

Reactions to a transfusion of blood products are uncommon.

If any of the following symptoms occur up to six hours after your transfusion, present to the Emergency Department with this card.

Chills • Fever • Nausea • Rash • Itching
Difficulty breathing • Pink-coloured urine

A delayed reaction can occur up to two weeks following transfusion. You could experience:

Fevers • Dark urine
Yellow coloured skin or eyes
Severe unexplained bruising or blood spots

If any of these symptoms occur, please seek prompt medical advice.



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