

Blood Transfusion

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A blood transfusion can be life saving treatment in an emergency, during surgery or for patients with illnesses like haemophilia and cancer.

This leaflet is a plain English summary of some important issues related to blood transfusion. When considering any major medical procedure always ask your doctor for up to date advice.

Who donates blood?

Unpaid volunteers donate blood for transfusion. Before giving blood, a potential donor must undergo a confidential interview, and complete a detailed questionnaire about their medical history and any factors that may affect the safety of donated blood. Those not suitable cannot donate.

Is it safe?

Blood transfusion in Australia is very safe. The Australian Red Cross Blood Service has many safeguards to ensure the safety of blood for transfusion.

After collection blood is extensively tested for infections including Hepatitis B and C, the human T-cell lymphotropic virus (HTLV) I and II, syphilis and the Human Immunodeficiency Virus 1 & 2 (HIV); the blood group is also determined. Donor blood must pass all tests otherwise it is destroyed.

Before you receive donated blood SA Pathology (or hospital transfusion laboratory) checks both your blood, and the blood you will receive, this is called cross matching. In some cases we may need to know if you have had a previous blood transfusion or have been pregnant in the last three months. When all tests are complete donated blood is released for transfusion.

How is blood used?

After donation blood is separated into three components.

1. Red Cells - carry oxygen to the body.
2. Platelets - help stop bleeding.
3. Plasma - contains clotting factors, proteins, and antibodies. Clotting factors help to stop bleeding.

Your doctor will calculate the amount required and you will only receive the blood component you need. You should also give your informed consent prior to any decision by your doctor to give you a transfusion.

Are there side effects?

Minor side effects such as a rash, hives, or fever occur in less than 1% of units transfused (a 'unit' is about 300ml). The risk of a severe haemolytic transfusion reaction is 1 in 40,000 units transfused.

Most patients' main concern is the risk of receiving infected blood.

Currently the risk estimates for the Australian blood supply for each unit donated are:

- HIV 1 in 1 million
- hepatitis C less than 1 in 1 million
- hepatitis B approx 1 in 468,000

Many common activities like smoking, driving a car, or being pregnant carry far greater risk. For example your chance of being killed from a road accident is 1 in 14,930 or at home is about 1 in 40,000.

Whilst blood transfusion has minimal risk it is not zero. However, the consequences of refusing a transfusion when one is needed may be serious. Doctors are aware of the possible complications and will order a transfusion only if necessary.

Do I have alternatives?

In some cases iron supplements can be prescribed such as oral iron tablets or iron infusions to treat iron deficiency anaemia.

Another alternative available to some patients is to have blood 'lost' during surgery collected, filtered, washed, and reinfused back into the patient. This process is known as 'cell salvage'.

