



Blood Transfusion: Information for Patients

What is a blood transfusion and reasons why you may need one?

Your health care provider has ordered a blood transfusion for you. To do this, blood is given to you through a vein. This may take up to four (4) hours.

Blood has three (3) main components.

- ❖ **Red blood cells** carry oxygen from your lungs to the rest of your body and if you do not have enough red cells, you have a condition called anemia.
- ❖ **Plasma** is the liquid part of the blood and contains many different protein substances, called clotting factors, which are needed for your blood to clot if you are bleeding.
- ❖ **Platelets** are small cells in your blood that are needed for your blood to clot properly.

If you are bleeding you may need transfusions of one or more blood components. Or, if your body is not making enough red cells, plasma proteins or platelets by itself, a transfusion may be ordered to prevent anemia or bleeding.

Where does the blood supply come from?

In Canada, blood is collected by **Canadian Blood Services and Hema-Québec** from volunteer donors. Each time they donate, donors are asked questions about their own health and about their travel outside of Canada. Each donation is tested for viruses that cause hepatitis B and C and AIDS, and for other diseases.

If the tests are negative for health issues, the blood is divided into red blood cells, plasma, platelets and sent to hospitals in sealed plastic bags, where it is carefully stored until it is needed. At the hospital, the blood is tested against a sample of your own blood to make sure it is appropriate for you before it is transfused.

What are the risks of a blood transfusion?

The chart on page 3 gives information about the risks of blood transfusion.



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Are there any alternatives to treatment with a blood transfusion?

If you have anemia, you may be treated with iron pills or with iron given into a vein, or with other pills such as Vitamin B12, depending on the reason for your anemia and how severe it is. There are also drugs which can help your blood clot without the use of plasma or platelets. These options, which may or may not be useful in your particular situation, can be discussed with your physician.

What happens during and after the transfusion?

You are watched carefully during your blood transfusion. **If you develop a fever, rash or chest pain, have trouble breathing or feel dizzy or sick, you must tell your nurse right away, and the transfusion may be stopped.** In some cases, you can be given drugs for your fever or rash, and the transfusion can be re-started. If you are going home after your transfusion, you should contact your physician if you feel unwell within the day after the transfusion.

What if I refuse the transfusion?

If you do not consent to a blood transfusion, your physician will explain the effects of this choice.

What if I have more questions before I consent to the transfusion?

Please ask to speak to your physician if you have any questions or concerns.



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Possible Side Effects and Risks of a Transfusion?

The bigger the second number, the lower the risk. For example, 1 in 7,000 is a lower risk than 1 in 100.

RISK OF EVENT (per 1 unit transfusion)	EVENT
1 in 13	Red blood cell antibodies that can complicate future pregnancies or transfusion
1 in 100	Hives (itchy skin rash)
1 in 100	Heart failure
1 in 300	Fever from a red cell transfusion
1 in 7,000	Delayed hemolysis, hemolysis is when your red blood cells are destroyed
1 in 10,000	Lung injury
1 in 10,000	Symptomatic bacterial sepsis from platelets. Sepsis is when you get an infection in your bloodstream or tissue
1 in 40,000	Wrong ABO (blood) group of red blood cells
1 in 40,000	Anaphylaxis, which is an extreme sensitivity to a drug or substance that can result in death
1 in 200,000	Death from bacterial sepsis from platelets
1 in 250,000	Symptomatic bacterial sepsis from a red cell transfusion
1 in 500,000	Death from bacterial sepsis from a red cell transfusion
<1 in 1,000,000	Transmission of West Nile Virus
1 in 4,000,000	Transfusion of Chagas Disease. This is a parasite that can be transmitted
1 in 7,500,000	Hepatitis B Virus (HBV) transmission
1 in 7,600,000	Human T-cell lymphotropic virus (HTLV) transmission. This is a virus that can be transmitted by exposure to blood or sexual contact and can cause a form of cancer in the blood.
1 in 13,000,000	Hepatitis C Virus (HCV) transmission
1 in 21,000,000	Human Immunodeficiency Virus (HIV) transmission

Source of information www.transfusionontario.org, <https://choosingwiselycanada.org/transfusion-medicine/>, www.ontracprogram.com