

What are the risks of Blood Transfusions?

Receiving blood today is safer than ever. Donated blood is tested using leading technologies to detect select viruses and diseases.

There are certain risks associated with blood transfusions.

These risks are very low, but like any medical treatment, a blood transfusion can never be completely risk free.

You must decide, with your doctor, if the risk of having a blood transfusion is higher than the possible risk of not having a blood transfusion.

Experts estimate the risk of infectious transmission for each unit of blood is:

- HIV (Aids) – 1 in 21 million
- HTLV – 1 in 7.6 million
- Hepatitis B – 1 in 7.5 million
- Hepatitis C – 1 in 13 million
- West Nile Virus – Less than 1 in 1 million
- Chagas Disease – 1 in 4 million

- Bacterial Contamination of Red Cell Unit – 1 in 250,000
- Bacterial Contamination of Platelet pools – 1 in 10,000

Donors and their blood donations are strictly screened, tested and stored according to government regulations, the risk of the spread of infections by blood transfusion are greatly reduced. However, the risk of infectious cannot be eliminated entirely.

Can I choose my own Blood Donor?

Patients may ask if they can choose a friend or relative to donate blood for them.

Directed donations are co-ordinated through the Canadian Blood Services and may be possible only in special situations (from a parent to a child). Directed donations do not entirely eliminate all risks associated with a blood transfusion.

Check with your doctor if you want more information about directed donations.

Informed Consent

Informed consent for transfusion is a requirement of blood and safety standards in Canada.

When consenting to a transfusion you should be making an informed choice. You must be able to understand the information presented to you.

- Information about the blood product, how it is given and what the expected outcome is.
- Reason for the transfusion.
- Transfusion associated risks.
- Any alternatives/benefits to the transfusion.
- Consequences of declining the transfusion.

What to expect during a Transfusion?

During the transfusion, the nurse will monitor your temperature, blood pressure, pulse and respiration.

The transfusion may take 30 minutes to several hours, depending on what blood product you are receiving.

Although reactions during a blood transfusion are rare, it is important for you to understand what could happen. These reactions are responses to the blood components/products.

While most people have no symptoms, the following is a list of signs and symptoms:

- Rash (hives) and or itching
- Shortness of breath and or difficulty breathing
- Fever and or chills
- Nausea and or vomiting
- High or low blood pressure
- Pain in head, chest or back

Although very rare, some reactions to blood components/products are more serious and potentially fatal, requiring urgent treatment.

If you have any of these signs or symptoms, it is important to report them to your nurse or doctor right away.

Each component of the blood has an important and specific function. Adhesives used in surgical procedures contain small amounts of human blood.

The Blood Screening Process

Screening ensures the donor's blood is safe for transfusion.

At the Canadian Blood Services:

Before donation, the donor's health and medical background are reviewed to determine their suitability to donate blood.

Following donation, the blood is tested for viruses (HIV, Hepatitis B virus, Hepatitis C virus, etc.) and infections/diseases that are transmitted in the blood.

Once the testing is complete, the blood products are shipped to the Hospital Transfusion Medicine Laboratory, where they are carefully stored until a patient needs them.

What are the Alternatives (Options) to Transfusion

For patients who are undergoing surgery there may be other options available to avoid or reduce the need for a blood transfusion. Some include:

- A thorough medical exam before surgery to address any treatable conditions.
- Iron and vitamins to maintain "healthy" blood levels.
- Blood tests to determine hemoglobin and iron levels and any risks for transfusion.
- In some patients, it may be appropriate to use a drug which is the synthetic form of the hormone erythropoietin (EPO) to boost hemoglobin production.
- When to stop drugs and supplements (eg, aspirin) that thin your blood and may increase bleeding during surgery.

Your surgeon and anesthetist will discuss the best treatment for your particular condition.



Knowing More About Blood Transfusions

You may Need a Blood Transfusion

Blood transfusions are often necessary in major surgeries and in some medical conditions. Your doctor may decide that a transfusion is necessary as part of your overall therapy.

This brochure contains important information about transfusions and the associated risks. If you have any questions or concerns, please contact your doctor.

Where does the blood used in the Hospital come from?

Blood is collected from volunteer donors by the Canadian Blood Services. Donors are subject to a comprehensive screening process prior to donation.

The blood donated is separated into different components: red cells, plasma, platelets, cryoprecipitate and plasma derivatives.