

What are the alternatives to Blood Transfusion?

Directed Donation - having a family member or friend donate blood for you

Directed donation occurs when a specific donor's blood is collected for a specific patient. In Canada, this program is limited to a parent or legal guardian donating for their child.

Autologous Donations - donating your own blood

If you are having a planned operation, you may be able to donate your own blood.

Blood Substitutes - Artificial blood substitutes are not used for red blood cell or platelet transfusion. Artificial clotting factors are used in certain bleeding conditions (like Hemophilia).

Other alternatives

- medications (erythropoietin and iron) that increase your body's red blood cell production
- medications that help to prevent bleeding
- intravenous fluids that increase the amount of fluid in your arteries and veins
- special equipment or techniques to decrease blood loss during or after an operation.

What are my choices?

If you may need a blood transfusion during your illness or operation, your doctor will discuss the possibilities.

If you choose to refuse blood transfusion, you will be asked to sign a form stating you do not want a blood transfusion.

If you are having a planned operation, refer to the brochure "What Are the Alternatives to Blood Transfusion?" to learn more about other choices.

After reading this brochure, if you have questions or concerns please ask your doctor.

My Questions are...

M.....

.....

.....

.....

.....

.....

.....

.....

.....



YOU MAY NEED A BLOOD TRANSFUSION

A blood transfusion may be needed with some illnesses or operations. This brochure will give you information that will help you make decisions about your care.

A letter will be sent to all patients who received a blood transfusion during their hospital stay.

What is a Blood Transfusion?

A blood transfusion occurs when a person receives human blood through an intravenous (IV). Human blood is made up of many parts. Three main parts of blood may be transfused.

1 Red Blood Cells

The red blood cell's main job is to carry oxygen throughout the body. All body organs (especially the heart, brain, kidney) need oxygen to work properly.

2 Platelets

Platelets are small sticky cells that the body needs to start blood clotting and to prevent or stop bleeding.

3 Plasma

Plasma is mostly water but also has proteins that help the blood clot. Plasma can be made into specialized products that are used to treat certain illnesses.

Where does the Blood come from?

In Ontario, Canadian Blood Services collects blood from healthy volunteer donors. All donors are asked questions about their health, travel, and social history before their blood is collected. This ensures blood is collected from low risk donors.

The blood is tested for infectious diseases. Blood that does not pass the testing procedure is destroyed. That donor is not allowed to give blood in the future. After the testing, the blood is separated into its various parts.

When the doctor orders a blood product, the technologist in the Hospital Blood Transfusion Laboratory also tests a sample of the patient's blood. This testing process ensures the patient's blood matches the donated blood.

Why are Blood Transfusions needed?

Blood transfusions are often needed if the patient loses blood due to an accident, an operation, an illness or some cancer treatments. If the body cannot make all of the individual parts of blood or if the parts are not working properly, a transfusion may be needed.

What are the benefits of Blood Transfusion?

Low red blood cell levels can cause damage to body organs due to a lack of oxygen. Platelets and plasma help the blood to clot and bleeding to stop. A blood transfusion may correct or prevent these situations. The doctor will recommend when transfusion is needed based on each patient's care needs. Benefits are carefully weighed against risks before any blood products are used. **Appropriately used, blood products can be life saving.**

What are the risks of Blood Transfusion?

Canada's blood supply is considered one of the safest in the world, but blood can never be risk free. Canadian information from 2003 tells us the risk of transfusion-transmitted disease for each unit of blood is as follows:

- HIV (AIDS) about 1 in 4 million
- Hepatitis C about 1 in 3 million
- Hepatitis B about 1 in 1.2 million

West Nile, a new Virus, can be transmitted by transfusion. Testing of all donated blood for the West Nile Virus began on July 1, 2003.

Bacterial infection caused by blood transfusion is rare. (The risk is highest with platelet transfusions.)

Hemolytic reactions are rare but can be severe. They can occur when the patient's own blood destroys the transfused blood. Very careful blood testing, preparing, and administering procedures help to ensure that the risk of a hemolytic reaction is low. It is important to pay special attention to patient identification to be certain that the correct blood is given.

Side-effects or "transfusion reactions" can sometimes occur with blood product transfusion. Itching, skin rash, fever or feeling cold are some possible symptoms. More severe reactions such as breathing problems are very rare.

If you have had a blood transfusion and you are feeling unwell, be sure to tell your nurse or doctor.