



Champion Toolkit

What is Blood?

Here are some facts to help you address any questions about the importance of blood.

Blood: A Vital Resource.

We all know that blood plays a critical role in our survival. But have you ever wondered how? Most of us never really think about it: yet within every drop of blood, you will find components that give us energy, help us fight infections and even make up part of our identity.

Blood is comprised of several components:

- Red blood cells carry oxygen to tissues and are responsible for the removal of carbon dioxide through the lungs.
- White blood cells protect the body from infection.
- Platelets provide the basis for clotting, which helps control and stop bleeding.
- Plasma is a yellow liquid containing many of the body's proteins which fight infection. It also contains elements such as calcium and magnesium, which are required to control bleeding and assist clotting. It distributes nutrients to tissues and transports waste products to the lungs, liver and kidneys, where they are removed.

What's Your Type?

Although blood performs the same function in all of us, everyone's blood is not the same. Little markers called "antigens" on our red blood cells determine what blood type we are. There are four main blood groups: A, B, O and AB, and they are divided into Rh Positive and Rh Negative types. It is important to know what blood type you are, as they are not all compatible with each other.

Did You Know?

- The most common blood type in Canada is O Positive (38 per cent).
- The rarest blood type in Canada is AB Negative (less than 1 per cent).
- Those with O Negative blood are considered "universal blood donors" because patients of all blood types can receive O negative blood.
- All blood types are needed.

It's In You To Give.

Blood and blood products are a critical element of everyday medical care and play a key role during major surgeries and other medical procedures. For example:



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- Red blood cells can be used to help accident victims, surgical patients and people with anemia.
- Platelets can be used to stop bleeding and treat cancer patients.
- Plasma is effective in treating patients suffering from burns or shock.

During serious medical emergencies, a blood transfusion can be a critical element of saving a patient's life. In addition, blood transfusions are very often used during the following procedures:

Organ transplants	Treatment of anemia	Treatment for blood disorders
Cancer therapy	Resuscitation of trauma victims	
Caring for premature babies	Heart surgery	

How much blood does it take to save a life?

Canadian Blood Services collects approximately 900,000 units of blood annually and different medical procedures, accidents or diseases require varying amounts of blood.

For example:

It can take **50** units of blood (donors) to help someone in a car accident
It can take **2** units (donors) to help someone who needs brain surgery
It can take **5** units (donors) to help someone in cancer treatment
It can take **8** units (donors) a week to help someone with leukemia
It can take **5** units (donors) to save someone who needs cardiovascular surgery
It can take **2 to 8** units to help someone with internal bleeding
It can take **2** units a day to help someone undergoing a bone marrow transplant
It can take **4** units a month to help someone with Aplastic Anemia
It can take **2** units for a repeat hip replacement
It can take **up to 10** units of plasma to help a car accident victim
It can take **10 to 20** units of platelets to help someone with leukemia

It does not take long to realize that the need for blood is real. This is why Canadian Blood Services runs various programs to encourage regular blood donation and recruit new blood donors. Special speaking engagements, blood typing events, regular blood donor clinics, building partnerships with corporate and community partners through *Partners for Life* helps ensure Canada's blood system remains strong.