

What are blood products? Can blood products make me sick? Are there any other choices?

You may need a blood transfusion during your illness or operation. This pamphlet tells you about blood and blood products. It will help you make an informed choice about your care. Your doctor will talk to you if he/she feels you may need a blood transfusion.

The Health Care Corporation of St. John’s has a policy about the use of blood and blood products. You will need to sign a consent form to say you are willing to accept blood, if needed. You will also need to sign a form if you decide not to accept a blood transfusion.

Where do blood products come from?

The Canadian Blood Services collects blood from healthy donors. They carefully screen all donors and perform many tests on the blood to reduce the risk of passing on infections. Canada’s blood supply is one of the safest in the world.

What is a blood product?

Human blood is made up of many parts. The blood is separated into 4 main parts:

1. Red Blood Cells

Red blood cells carry oxygen to all parts of the body. Body organs (especially the heart, brain, and kidneys) need oxygen to work.

2. Platelets

Platelets are tiny cells that start blood clotting and prevent bleeding.

3. Cryoprecipitate

Cryoprecipitate is concentrated plasma proteins that help blood clot and prevent bleeding.

4. Plasma

Plasma is the watery part of blood. It has many proteins, which are needed to stop bleeding.

Plasma can also be used to make products for other purposes. They include albumin, immunoglobulins, clotting factors, and Rh(D) immune globulin.

What are the benefits of a blood transfusion?

Blood transfusions can save lives. If you bleed or become anemic (low red blood cells), you may not have enough red cells to carry oxygen to your organs. Plasma and cryoprecipitate replace the proteins needed to prevent bleeding and help blood to clot. Platelets start blood clotting where blood vessels are damaged. You may need a platelet transfusion if you do not have enough platelets or if yours do not work properly.

Your doctor will carefully weigh the benefits of a transfusion against the risks before any blood products are used.

What are the risks of a blood transfusion?

Although Canada’s blood supply is one of the safest in the world, no transfusion is free of risk. There is a chance of getting an infectious disease or having a reaction to the blood. Most people worry about diseases like AIDS and

Hepatitis. The chance of these diseases being passed on by blood is very small. Table I shows the risk related to receiving one unit of blood product. One unit means one bag of blood from one donor.

Risk of Infectious Diseases (per unit)

Table I

HIV (AIDS)	1 in 4.7 million
Hepatitis C	1 in 3.1 million
Hepatitis B	1 in 82,000
Hepatitis A	Extremely low
Syphilis	Virtually nonexistent
Malaria	1 in 4 million
West Nile Virus	Not yet determined, testing started July/03
CMV (Cytomegalovirus)	Low to nonexistent
CJD (Creutzfeldt-Jacob disease)	Virtually nonexistent

The risk of passing on an infectious disease are even less with plasma products such as albumin, immunoglobulins, clotting factors, and Rh (D) immune globulin.

Reactions to the blood are much more common and can be serious. It is rare for a person to die from a blood reaction. It is very rare for any illness to develop later. The chance of reactions are listed in Table II

Risks of Transfusion Reactions (per unit)

Table II

Mild Allergic	1 in 100
Fever	1 in 300 for red cells 1 in 2 for platelets
Early Incompatibility	1 in 40,000 1 in 800,000 fatal cases
Severe Allergic	1 in 40,000
Fluid Overload	1 in 700
Bacterial Contamination	1 in 2,000 for platelets 1 in 100,000 for red cells
Acute Lung Injury	1 in 5,000
Late Incompatibility	1 in 7,000
Risk of Forming Blood Antibodies	1 in 100

Sometimes there are ways to avoid a blood transfusion.

Autologous donation

Donate your own blood ahead of time. You may be able to donate your own blood and save it for the day of your operation.

Directed donation

Donate blood for your child. If a child needs blood, a parent or guardian may be allowed to donate blood to give to the child.

Blood salvage

Get back blood lost during your operation. Special equipment can be used to recover your blood and return it to you during your operation.

Build up your own blood

There are some drugs that help prevent the need for a blood transfusion. They are used to increase the amount of blood or fluid in your body and to prevent bleeding. These drugs are only helpful if used ahead of time.

If you have any further questions, please discuss them with your doctor. More information is available on the Canadian Blood Services website at www.bloodservices.ca

Prepared by the Transfusion Committee of the



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**BLOOD
and
BLOOD PRODUCTS**

Patient Information

