

*Tell your physician or nurse if you have had a reaction to blood or blood products in the past.*

## Blood Transfusion — Benefits, Risks and Options

This guide will help you understand the benefits and risks of a blood transfusion. It will also cover ways to decrease the need for a blood transfusion. Transfusions are used to replace blood and blood parts (blood products) that are below a reasonable level for your health. The transfusion can be with one or more of the following blood products: red blood cells (RBCs), platelets, plasma or cryoprecipitate.

- RBCs carry oxygen throughout your body. They help remove carbon dioxide.
- Platelets are small cells that help your body form clots to stop bleeding.
- Plasma and cryoprecipitate contain clotting proteins that help control bleeding.

A person may need a blood transfusion due to blood loss from a surgery or injury, or certain medical conditions or diseases.

### Benefits and risks of blood transfusions

A blood transfusion adds blood components to your body to fix low levels. It can be a lifesaving treatment. It can also prevent complications due to blood loss.

There are risks with every medical procedure, including blood transfusion. But, there are certain safeguards in place to help reduce these risks. The blood used for transfusion comes from a donor. All donors must answer questions about their health and lifestyle before giving blood. The donated blood is then carefully tested for infectious diseases. Blood that is not safe is destroyed. But there is still a very small risk of getting an infectious disease from a blood transfusion such as:

- Human immunodeficiency virus (HIV): 1 in 2.9 million transfusions
- Hepatitis C: 1 in 3.3 million transfusions
- Hepatitis B: 1 in 1.5 million transfusions

Other risks include:

- Severe allergic reactions
- Breathing problems due to fluid overload or injury to the lungs
- Bacterial infection

- Destruction of RBCs (hemolysis)
- Receiving the wrong blood product (due to human error)
- Shock or death

## **Treatment options and ways to reduce the need for a transfusion**

Our practices focus on ways to reduce or avoid the need for blood transfusions, when possible. This may lead to fewer infections and better outcomes. It also makes sure that you receive treatment when needed and that you receive the transfusion safely.

Treatment options and how well they work will depend on your situation. Some techniques and medications can help reduce blood loss, and prevent or control bleeding. Clinicians can also use some advanced surgical tools to reduce bleeding in surgery.

Anemia is a condition that is marked by low levels of RBCs. By treating anemia before surgery, you may avoid a blood transfusion. Ask your physician if you should start or stop taking any medications or supplements before a procedure or surgery. Your body can adapt to moderately lower levels of RBCs without needing a blood transfusion. You may have fatigue and weakness or no symptoms until your RBCs return to a normal level.

When blood loss is too great, or there is a life-threatening situation, conservative options may not work quickly enough to help. In these cases, a transfusion may be the best treatment.

Your physician will explain why a blood transfusion is important. They will discuss the amount and type of blood product you may need, based on your health. You should understand the risks and benefits of treatment so you can make a choice that is best for you.