

Blood Transfusions: Your Options

This handout provides basic information about the benefits and risks of different types of blood transfusions. After you read this material talk with your doctor about which form of transfusion is best for you.

What Is a Blood Transfusion?

A blood transfusion is a common procedure in which you receive blood through an intravenous (IV) line that goes into one of your blood vessels.

Blood transfusions are used to replace blood lost during surgery or a serious injury. A transfusion also might be done if your body can't make blood properly because of an illness.

What Are the Sources of Blood?

Blood for transfusions comes from one of the following sources:

- blood that was donated by a volunteer from the community.
- blood you have donated for yourself (**autologous donation**)
- blood donated by people - family or friends - that you chose to donate blood for you (**directed donation**)

Blood from community volunteers is donated by healthy people who want to help others. The blood is screened carefully in order to protect the health of both the person donating the blood, and you, the patient who will receive it. Before donating, each volunteer donor answers many questions that help to identify people at risk of transmitting infectious diseases. Blood is collected by a sterile method into a disposable bag. All tools and supplies that come in contact with the donor are used only once. After the collection, the blood is sent to the laboratory and tested in several ways. This will be explained in more detail later in this handout.

How is the blood tested?

The blood supply in the United States is extremely safe. All blood donors go

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through careful screening of their health history. Donors who are at risk of transmitting an infectious disease are not allowed to donate. All donor blood is tested before transfusion to discover any signs of syphilis, hepatitis or exposure to AIDS viruses. We do more tests to determine the donor blood type and to match the blood with you. The procedures we use meet or exceed the requirements of the U.S. Food and Drug Administration.

Both directed donations and blood collected from the community are tested **with the same** thorough screening and testing procedures. Similarly, the risks with blood from directed donations **are the same** as the risks with blood from community volunteers.

Donating Blood

Family and friends who wish to assist in maintaining the blood supply for patients in the area can donate at their local community blood bank or Red Cross blood center. They don't need to make any special arrangements. There are no charges to the donor for a donation to the blood supply.

Being Your Own Blood Donor

Donating your own blood before your surgery is called **autologous donation**. Your doctor can help you decide if your surgery is one in which an autologous donation offers a benefit. Questions to consider include your medical condition, the number of units you would need and the amount of time before your surgery. Other points to consider include:

- Autologous blood does not eliminate all possible risks of transfusion.
- Autologous blood is not necessarily safer than blood from the community blood supply.
- Some medical conditions may make autologous donation unsafe.
- Autologous donation may cause anemia and increase the likelihood of needing an additional transfusion with autologous blood or blood from the community blood supply.
- Autologous blood must be donated at least four days before your surgery, although a much longer interval is preferred.

- It is possible to donate more than one unit. When you donate blood for your surgery it is processed and stored separately from the community blood supply.
- The cost of autologous blood donation is not covered by all medical insurance carriers for all procedures.

In addition, an autologous donation may not provide all of your transfusion needs. Blood products that assist in clotting, such as platelets and plasma, cannot be stored as autologous donations except in rare circumstances. If you need such products, they will come from community volunteers.

Side Effects of Being Your Own Donor

After any blood donation, you may have temporary tiredness or weakness and your blood iron level will decrease. Depending on the number of units you donate, your doctor will usually prescribe iron supplements.

Intraoperative Autologous Transfusion

Another way to use your own blood is through a procedure known as intraoperative autologous transfusion (IAT). With IAT, blood which is shed during your surgical procedure is prepared and given back to you. If this procedure interests you, discuss your options with your doctor before your operation.

Choosing Family or Friends to Donate Blood

Selecting your own donors to provide blood for you is called **directed donation** or **designated donation**. Directed donations are not necessarily safer than the community blood supply. However, for some patients directed donation provides some peace-of-mind because they personally know the people who have donated the blood.

- A directed donation may still transmit disease because friends and family may feel pressured to donate and may not provide complete answers to questions about their health history that would indicate their blood is unsafe.
- Directed donations must be matched with your blood type.
- Even if someone donates for you, the blood may not be available for you

because of compatibility, donor qualifications or processing problems.

- There are medical reasons why some donors, especially close family members, may not be suitable for you. The medical staff of the blood bank can advise you on these reasons.
- Directed donations must be collected at a Red Cross facility or a community blood bank **at least ten working days** before the anticipated transfusion to allow enough time for testing and shipping.
- Most insurance carriers do not cover the donation fee for directed donations.

Possible Risks of Community//Directed Donor Blood

Any blood transfusion may result in a variety of minor side-effects, including chills, fever or hives. Very rarely, serious reactions can occur. These include shortness of breath, shock, kidney failure and even death. In addition, there is a small risk of getting infected with a disease, such as hepatitis, or even more remotely, AIDS. Improved donor screening and blood testing procedures have made the nation's blood supply safer than it has ever been.

Possible Risks of Receiving Autologous Blood

With an autologous donation the risk of getting an infectious disease from a blood transfusion is lower but you may still have side effects such as: chills, fever, or shortness of breath. Even with an autologous transfusion there is the rare risk of infection, if the blood unit is contaminated with bacteria. This may lead to infection or even death.

Arranging for Donations

To ensure proper delivery, you must notify the Blood Bank at the University of Michigan Health System of your request. Donor centers require a doctor's authorization on all forms requesting autologous and directed donations. This is necessary for making shipping arrangements and to assure that the blood is reserved for the correct patient. To do this, you will need the patient's University of Michigan Medical Record Number and the units must be labeled with this number.

Autologous and designated donations can be made at Red Cross blood centers, Michigan Blood centers and some hospitals in Michigan. It is also possible to make donations in out-of-state Red Cross and blood centers that are licensed to ship blood interstate. The Apheresis Procedures Unit staff will assist you in finding a convenient facility and completing and submitting the correct forms.

A Final Consideration- Costs

The cost of these options varies and some or all of these costs may be passed on to you. Check with your insurance company to see if they cover the blood collection facility's per unit surcharges for autologous and directed donor blood. These charges **are not covered by all health insurance policies**. Fees are charged per unit received even if the unit is not transfused.

Discuss your blood transfusion options with your doctor. He or she can help you decide which option is best for you.

Contact Information

Mailing Address:

Blood Bank & Transfusion Service

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Reviewer: Terry Downs

Last Revised 12/2015

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