

# Blood Use

Information about your child's transfusion

## Transfusions

Children's National Health System provides blood donated by volunteers for any patient needing a transfusion. A transfusion means that your child receives red blood cells, platelets, plasma, or other products made from blood. Blood transfusions save millions of lives each year. The benefits of receiving blood far outweigh the risks of not having or postponing needed surgery. The most common reason to receive a transfusion is to replace blood or one of its parts lost from surgery, trauma, or burns. Infants sometimes receive blood transfusions to replace blood taken for laboratory tests. Children with diseases such as leukemia, kidney disease, and sickle cell anemia also may require blood transfusions.

## How can I be sure the blood my child receives is safe?

All blood used at Children's National is from voluntary donors. Donors are thoroughly questioned about their health, travel history, and behavior.



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## Blood Transfusions

Before a unit is transfused, a sample of donor blood is tested for hepatitis B, hepatitis C, syphilis, human immunodeficiency virus (HIV), HTLV-I/II, and West Nile virus. Another test, anti-HBc, is done to check that the donor blood is not contaminated with any form of hepatitis. Many viruses are now detected using special tests called nucleic acid testing (NAT). If any test is positive, the donor blood is destroyed. Other tests may be added to improve transfusion safety.

In addition, because testing is not foolproof, investigational studies regarding the safety of blood and blood products are introduced often. As a result, you may be informed in the future if blood or blood products have any risk of infection that was not appreciated at the time of transfusion.

## How can I be sure the blood my child receives matches his or her blood?

Each sample of donor blood is tested for a blood group and type (ABO and Rh). Before transfusion, a sample of the donor blood is carefully tested with a sample of your child's blood to determine if the two are compatible.

## Are there risks in receiving a transfusion?

Because the blood is so carefully tested, there is a very low risk that an adverse reaction or side effect may occur. Adverse reactions may include a hemolytic reaction in which the transfused cells are destroyed, an allergic reaction in which itchy bumps called hives develop, or a febrile reaction in which fever and chills may occur. Steps taken to avoid adverse reactions from a transfusion include:

- Checking the group and type of the blood before each transfusion. A medical technologist checks blood before transfusion to be sure your child receives the proper blood.
- Treating allergic reactions with antihistamines. (Two out of 100 transfused patients may develop these)
- Reducing the risk of febrile reactions by using special filters to remove white blood cells before blood is stored.
- Treating recurrent febrile reactions by administering medication before the transfusion.
- Adhering strictly to sterile procedures to avoid contamination of blood.

What is done to reduce the risk of getting hepatitis from a transfusion?

Hepatitis is an inflammation of the liver that can be caused by a number of viruses. All blood products are screened for hepatitis type B and type C. Another test, anti-HBc, is done to reduce the risk of other forms of viral hepatitis. Although the risk of getting hepatitis from a transfusion is very small, we do recommend that you contact your pediatrician to arrange for hepatitis testing six months to one year after transfusion.

Is there a risk of getting AIDS from a transfusion?

The risk of getting AIDS from a transfusion is now very small (1:2,135,000). Most cases of AIDS attributed to transfusion came from untested blood transfused prior to 1985. The first test to detect the antibody of the HIV virus was licensed in February 1985. It is not a test for AIDS, but for prior exposure to the HIV virus. Another test, HIV Antigen, was licensed in March 1996 to further assure blood safety. That test was replaced in May 2003 by a test for the actual virus using a method called NAT. A few individuals may have HIV, but test negative. For this reason, federal law requires that individuals in high-risk groups for being infected with AIDS (homosexual men and intravenous drug users), or those who suspect they might have had intimate contact with a high-risk person may not give blood.

Are there alternatives to using blood?

There are currently no substitutes for red blood cells. Alternatives to using blood include transfusing salt water (saline) or a protein called albumin. Depending on the kind of operation, age, and size of the child, the child can give for him/herself (autologous donation) or blood lost in surgery can be harvested and infused. Discuss these alternatives with your physician.

Can parents donate directly to their child?

Children's National has a Directed Blood Donor Program. However, there is no scientific evidence that blood from one's own family is 'safer' than blood donated by volunteers. In addition, under rare circumstances, such as blood and marrow transplants, parents should not give blood for their child. Your child's physician will complete

a Request for Directed Donation form and provide information. There may be additional charges for this service. A Children's National Blood Donor recruiter also can explain the procedures and policies for donating blood by calling 202-476-KIDS (5437).

Can my child donate his or her blood prior to surgery?

Some children can donate blood to themselves through an autologous blood donation. The child must be healthy, cooperative, and not anemic. Small children can't be their own donors. Your doctor can advise you on whether your child can donate. There are additional charges for this service.

Where do you collect blood donations?

Children's National operates a Blood Donor Center on the second floor of the main hospital. All donations are made by appointment with the Blood Donor Recruiter at 202-476-KIDS (5437). Parents are urged to schedule their donors as far in advance as possible due to the limited number of appointments available per day.

Will we need to replace the blood used for our child?

You are not required to donate blood to replace what is used for your child. Blood is available for anyone who needs it, but it is important to donate blood if you are in good health.

Is there a charge for receiving blood?

The cost of the processing, testing, storing, and distributing of blood is passed on to patients. There is no charge for the blood itself. Check with your health insurance company to find out if these fees are covered.

Give Life - Give Blood

If you would like to donate blood to Children's National, call 202-476-KIDS (5437). We can arrange for you to come to Children's National in small groups to donate for any child in need of blood, or to schedule a Bloodmobile blood drive in your community.



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