

BLOOD TRANSFUSION

GENERAL INFORMATION:

What is a blood transfusion? A blood transfusion (trans-FEW-shun) is when you are given blood into a vein through an IV. Blood is made up of different parts such as red blood cells (RBCs), white blood cells (WBCs), platelets, and plasma. RBCs carry oxygen to the cells of the body and take away wastes like carbon dioxide. WBCs help fight infection in the body. Platelets, plasma, and other proteins in the blood help your blood clot when you are cut or hurt.

Why do I need a transfusion? You may need a blood transfusion if you have anemia (uh-NEE-mee-uh). This is when you do not have enough RBCs to carry plenty of oxygen. You may also need a blood transfusion if you lose a lot of blood during surgery. A transfusion of WBCs will help you fight an infection if your WBC count is too low. Caregivers may give you a transfusion of platelets and clotting factors if you are bleeding too much or too easily. Certain diseases may also be treated with parts of blood. For example, plasma may be used to treat Von Willebrand disease.

Where does the blood come from? There are 3 types of blood donations.

- **Allogeneic (AL-lo-juh-NAY-ik):** This is the most common way blood is donated. Any healthy person can donate blood. This blood can be used when someone with the same blood type needs a transfusion.
- **Autologous (ah-TALL-uh-gus):** An autologous blood donation is when you donate your own blood to be used by you. This kind of transfusion has a smaller risk of you getting a disease or having a bad reaction to the blood. The risk of being given the wrong unit of blood, however, does still exist even with your own autologous blood.
 - You may be able to donate your own blood no later than 3 days before surgery or another procedure. Caregivers can then give you back your own blood if needed during the surgery or procedure. It takes about 3 days for your body to replace the blood that was donated.
 - Caregivers may also be able to collect your blood with a suction machine such as a cell saver. This can sometimes be done during surgery or after an accident. Your blood is cleaned and the RBCs are given back to you as a transfusion. This is called blood collection or cell salvage.
 - Blood dilution or hemodilution (HE-mo-di-lu-shun) can be another type of autologous blood transfusion. Right before surgery starts, a

caregiver removes one or more units of blood through your IV. The caregiver immediately puts liquid into your IV to replace the blood that was removed. Then if you lose blood during the surgery, you lose less RBCs. After surgery, the caregiver gives the blood removed earlier back to you. Even though you lose blood during surgery, your RBC count will not be so low.

- **Directed:** A family member or friend with the same blood type can donate blood for you. This is called directed blood donation because caregivers will save that blood for you if you need it.

Care:

- Blood is kept in a special refrigerator after it is donated until it is needed. This refrigerator keeps the blood from spoiling. Caregivers may put blood through a warming machine before it is given to prevent hypothermia (hi-po-THER-mee-uh). Hypothermia is when your temperature drops too low. A unit of blood that is given too cold can also cause your heart beat to change.
- An IV is a needle with a tube attached that is put into a vein (blood vessel) in your arm, neck, or leg. The IV is used to put the blood into your body. Medicine and other liquids can also be put through the IV. The IV is connected to tubing and liquid. The blood is run through a filter hooked to the IV as it is given to you. The filter cleans small pieces of platelets and WBCs out of the blood.
- Your vital signs are checked before, during, and after the transfusion. This means taking your temperature, blood pressure, pulse (counting your heartbeat), and respirations (counting your breaths). To take your blood pressure, a cuff is put on your arm and tightened. The cuff is attached to a machine which gives your blood pressure reading. Caregivers may listen to your heart and lungs by using a stethoscope (STETH-uh-skop). Your vital signs are taken so caregivers can see how you are doing.

What are the risks of having a blood transfusion?

- Many people are worried about getting AIDS, hepatitis, or West Nile Virus from a blood transfusion. The risk of this happening is rare. Blood banks test all donated blood for AIDS, hepatitis, and West Nile Virus. If you refuse a blood transfusion, your condition may get worse, and you may die.

- Caregivers are very careful to match the blood type of the donor as closely as possible to your blood type. There is still a chance that you may have a bad reaction to the blood. Tell caregivers if you have any of the following symptoms.
 - Color of skin is red and flushed, often with an itchy rash.
 - Coughing, shortness of breath, breathing very fast, or wheezing.
 - Dizziness. This may mean your blood pressure has dropped too low.
 - Feeling suddenly very anxious.
 - Headache.
 - You feel your heart beating very fast.
 - Low back pain.
 - Seizures (convulsions)
 - Sudden shaking chills and fever.
 - Vomiting (throwing up) and diarrhea (loose BMs).

How do I know I will be given the right type of blood for me? The 4 blood groups (A, B, AB, and O) each have 2 Rhesus (REE-sus) or "Rh" types. The Rh types are positive and negative. All blood, even O negative blood, can have antibodies (AN-ti-bah-dees). Antibodies in the blood being given can attack the RBCs, WBCs, or platelets in the person receiving the blood. This can cause a serious transfusion reaction. Caregivers will test your blood with the blood you are going to receive. This will check for antibodies in the donated blood that would attack your blood. Even after careful testing, you may still have a transfusion reaction.

What should I know about donating blood? You cannot get AIDS, hepatitis or West Nile Virus from donating (giving) blood. Tell caregivers if you have taken a recent trip outside of United States before giving blood. If you have, you may need to wait a time before donating blood. Before donating blood, you may be asked if you have had recent "flu-like" symptoms. These symptoms may include a fever, headache, stiff neck, or weakness. If you have had flu-like symptoms, you may be asked to donate at a later date. If you have flu-like symptoms after donating blood, call the blood bank and tell your doctor.

Informed Consent:

Informed consent: You have the right to understand your health condition in words that you know. You should be told what tests, treatments, or procedures may be done to treat your condition. Your doctor should also tell you about the risks and benefits of each treatment. You may be asked to sign a consent form that gives caregivers permission to do certain tests, treatments, or procedures. If you are unable to give your consent, someone who has permission can sign this form for you. A consent form is a legal piece of paper that tells exactly what will be done to you. Before giving your consent, make sure all your questions have been answered so that you understand what may happen.

CARE AGREEMENT:

You have the right to help plan your care. To help with this plan, you must learn about your health condition and how it may be treated. You can then discuss treatment options with your caregivers. Work with them to decide what care may be used to treat you. You always have the right to refuse treatment.

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