

Your doctor has ordered a blood transfusion as part of your continuing medical care. Before the blood transfusion procedure, your doctor will explain it to you in detail. If you have any questions about options related to a blood transfusion, please discuss with your doctor. Make sure you have read before your transfusion, "A Patient's Guide to Blood Transfusions," at the end of this handout. This informational sheet is produced by the **California Department of Health Services**.

Usually, the registered nurse (RN) or an approved health care professional administers a blood transfusion. Blood transfusions increase the amount of blood components in your bloodstream. These components include whole blood, platelets, packed red blood cells, or plasma products. Blood transfusions replace blood that is lost or depleted due to injury, surgery, sickle cell disease, or cancer. Red blood cells bring oxygen and nutrients through the bloodstream to the tissues and organs inside your body. Occasionally, platelets may be given to improve your body's ability to clot blood and to control bleeding. Plasma products replace volume and provide blood factors that help with blood clotting. A transfusion of blood components may be given to enhance your recovery or healing process.

What Are the Risks Associated with Blood Transfusions?

The Food and Drug Administration (FDA), The American Association of Blood Banks (AABB), and The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) regulate the process of obtaining, storing, preparing, and testing of blood. These organizations are responsible for ensuring a safe blood supply.

Blood donors must go through an extensive screening process before they are able to donate blood. After blood is drawn, it is tested for blood type, RH factor, as well as for antibodies. Multiple individual screening tests are performed for evidence of infection and viruses. With this extensive testing, the chance of receiving a unit of blood containing the Human Immunodeficiency Virus (HIV) or hepatitis C virus is around 1 in 2 million, and less than 1 in 200,000 for hepatitis B.¹

¹ Stramer SL, Glynn SA, Kleinman SH et al. "Detection of HIV-1 and HCV infections among antibody-negative blood donors by nucleic acid-amplification testing." *New England Journal Medicine* vol 351, pp.760-768, August 2004.

How Do I Prepare for a Blood Transfusion?

- You can expect that your doctor will order a blood specimen to confirm your blood type and to check compatibility with the donor unit. Compatibility testing (also referred to as *cross matching*) is done even if you have donated your own (autologous) blood.
- Check with your doctor about how much time to plan for your blood transfusion procedure. Each unit of blood usually transfuses over 1½ to 2 hours. Some transfusions are for 2-3 units. You may be here for several hours depending on what your doctor has ordered for you. Please arrange your transportation accordingly.

Where Do I Go for my Blood Transfusion?

- **If You Are a Patient in the Hospital:** Your nurse administers your blood transfusion at the bedside and monitors you throughout the entire procedure.
- **If You Are a Patient Coming from Home to the Pacific Campus:** Blood transfusions are given in our Ambulatory Care Unit (ACU), 2351 Clay Street, on the 6th floor. Register with the admitting staff in the Ambulatory Care Unit when you arrive. Parking is available in the garage located at 2405 Clay Street (corner of Clay and Webster Streets).
- **If You Are a Patient Coming from Home to the Davies Campus:** The staff will contact you the day before your blood transfusion procedure. Proceed to either:
 - 1) North Tower – 4th floor, Ambulatory Care Unit (ACU), Nurses' Station, or
 - 2) South Tower – 1st floor, Outpatient Infusion Services (OIS), Room 151A
 Parking is available in the garage located at Castro and Duboce Streets.

Notes and Questions to Ask My Doctor

<hr/> <hr/> <hr/> <hr/> <hr/> <hr/>

What Can I Expect During a Blood Transfusion?

- The nurse will ask you to sign a consent form verifying that you understand and agree to the procedure as explained by your doctor.
- You will be positioned comfortably for this procedure. The nurse will insert an intravenous line (IV) in your arm.
- Your doctor may order medication for you to take prior to the transfusion. The nurse will explain the reason and action of the medications.
- For patient safety, 2 nurses will verify your identity by checking your I.D. band with the unit of blood.
- The nurse will start the transfusion and monitor your temperature, pulse, and blood pressure before, during, and after the transfusion.
- Also, the nurse will observe for signs of a reaction to the transfusion(s). Reactions to blood transfusions are rare. Symptoms may include shortness of breath, chills or fever (101°F / 38.3°C or above), itching/hives, rash, nausea, lower back pain, feelings of apprehension, tingling or numbness; heat, pain, or swelling at IV site. Please report these symptoms immediately to your nurse.
- You may eat and drink during this procedure. With the assistance of a nurse, you may get up and go to the bathroom.

What Should I Watch Out for After I Go Home?

- You may resume your normal activities.
- Continue your usual diet and medications.
- Be alert for symptoms of a reaction after you go home. **Call your doctor immediately or go to the Emergency Room if you experience any of the following symptoms:**
 - Shortness of Breath
 - Chills or fever (101°F / 38.3°C or above)
 - Itching/hives, rash
 - Nausea
 - Lower back pain
 - Feelings of apprehension
 - Tingling or numbness
 - Heat, pain, or swelling at IV site

More Ways to Learn

- Go to www.cpmc.org/learning.
- Visit the U.S. Food and Drug Administration at www.fda.gov/cber/blood.htm.

Frequently Asked Questions

Question: How long does a blood transfusion take?

Answer: A blood transfusion may take several hours depending on what your doctor has ordered for you. Initially, a sample of your blood has to be cross matched and this process can take up to two (2) hours. Also, each unit of blood transfuses over 1½ to 2 hours.

Question: Can I drive home after a blood transfusion?

Answer: Yes, you may drive home after a blood transfusion once you are released by the nursing staff.

Question: What should I watch out for after I go home?

Answer: Be alert for symptoms of a reaction after you go home. **Call your doctor immediately or go to the Emergency Room if you experience any of the following symptoms:** Shortness of breath, chills or fever (101°F / 38.3°C or above), itching/hives, rash, lower back pain, feelings of apprehension, tingling or numbness; heat, pain or swelling at IV site.

Produced by the Center for Patient and Community Education in association with the staff and physicians at California Pacific Medical Center. Last updated: 8/07

© 2004-2007 California Pacific Medical Center

Funded by: A generous donation from the Mr. and Mrs. Arthur A. Ciocca Foundation.

Note: This information is not meant to replace any information or personal medical advice which you get directly from your doctor(s). If you have any questions about this information, such as the risks or benefits of the treatment listed, please ask your doctor(s).

If you have additional questions about your options for blood transfusion, please ask your doctor. Information also can be obtained by calling your local community blood center or hospital blood bank.

References:

1. Stramer SL, Glynn SA, Kleinman SH et al. "Detection of HIV-1 and HCV infections among antibody-negative blood donors by nucleic acid-amplification testing." *New England Journal Medicine* vol 351, pp.760-768, August 2004.

* The risk estimates were adjusted to include first time and repeat blood donors.

2. U.S. Department of Transportation's Fatality Analysis Reporting System website 2003 data:

http://www.hwysafety.org/research/fatality_facts/general.html.

This brochure is provided as a source of information and is not to be considered a replacement for the **Informed Consent** process prior to the transfusion of blood.

This brochure was developed by the California Department of Health Services Laboratory Field Services
850 Marina Bay Parkway
Richmond, CA 94804

A Patient's Guide to Blood Transfusion

In partnership with the Medical Technical Advisory Committee of the Blood Centers of California.

For information about brochure contents, please call Laboratory Field Services (213) 620-6574

Distributed by the Medical Board of California

Maximum copies per order is 300 (includes a master copy for healthcare providers own reproduction).

To place your order, please Fax your request to:

(916) 263-2479

This information may be obtained electronically at:

www.medbd.ca.gov/Pubs_Bloodtransfusion.htm

(Revised 6/06)



California Department of
Health Services

June 2006

If you need blood, you have several options. These options include receiving blood from the community, using your own blood (autologous), or blood from donors that you have selected (designated donors). Your options may be limited by time and health factors. Although you have the right to refuse a blood transfusion, this decision may hold life-threatening consequences.

It is important to weigh the risks, costs and benefits of donating your own blood before surgery. Many elective surgeries do not require blood transfusions. If you have questions about transfusion needs or options, please ask your doctor. Check with your insurance company about your costs for donation. If you choose not to donate your own blood, or if more blood is required than expected, you may receive blood other than your own.

Community Donors. Hospitals maintain a supply of blood from volunteer (unpaid) community donors to meet transfusion needs. Community blood donors are screened by a thorough medical history, and then tested with the most accurate technology available.

Our nation's blood supply is very safe and high in quality. Nothing in life is risk free; however, the risks associated with blood transfusions are very small. The chance that a unit (pint) of blood will transmit

Human Immunodeficiency Virus (HIV) (the virus that causes Acquired Immunodeficiency Syndrome (AIDS)) or hepatitis C is about 1 in 2 million. The chance that a unit (pint) will transmit hepatitis B is less than 1 in 200,000.^{1*} Although the risk for other serious infections exist, that risk is much less than the annual risk of dying in a motor vehicle accident in the United States (1 in 7,000).²

Using your own blood – Autologous

Donation. Using your own blood (autologous) can minimize the need for transfusion with donor blood. Using your own blood will reduce, but not eliminate, the risk of transfusion-related infections and allergic reactions.

Patients who donate their own blood before surgery have lower blood levels at the time of surgery and, therefore, have a greater chance of needing transfusions during or after their surgeries. Autologous blood donations are not an option for all patients. It may not be safe for you to donate. Ask your doctor if autologous donation is appropriate for you.

Donating BEFORE Surgery. Blood banks can draw your blood and store it for your use. This process usually is performed for a planned surgery. Blood can be stored for only a limited period of time, so coordinating the donations with the date of surgery is important.

Donating DURING Surgery and/or After Surgery. Immediately before surgery, your doctor may be able to remove some of your blood and replace it with other fluids. After surgery, the blood that was removed may be returned to you.

In addition, the surgeon may be able to recycle your blood during surgery. Blood that normally is shed and discarded during surgery could be collected, processed, and returned to you. A large volume of your blood can be recycled in this way.

Blood that is lost after surgery may be collected, filtered, and returned to you.

Designated Donors. Although the blood supply today is very safe, some patients prefer to receive blood from people they know – “designated (or directed) donors.” This blood is not safer than blood from volunteer community donors. In some cases it may be less safe because donors known to the patient may not be truthful about their personal history. Blood donated by someone who was recently exposed to HIV or other infections could pass the screening tests, and infect you.

Designated donors must meet the same requirements as community donors. Several days notice is required for the additional processing of designated donors.