National Women's Health Report
NWHRC® PUBLISHED BY THE NATIONAL WOMEN'S HEALTH RESOURCE CENTER DECEMBER 2003

Women & Blood Donation

It was supposed to be the perfect pregnancy and delivery. After all, Lauren Larsen was a healthy, 38-year-old marathoner who had had a perfectly normal pregnancy—not even a smidge of morning sickness. But in her 37th week, she developed preeclampsia, a serious complication of pregnancy, resulting in an emergency cesarean section to deliver her daughter, Clare. And then the horror began. That night, Ms. Larsen's body shut down as her blood pressure dropped precipitously and her circulation failed. In a nutshell, she was bleeding uncontrollably through every vessel in her body.

It took six weeks in the intensive care unit, three surgeries, four weeks of kidney dialysis, and more than 200 units of blood components—red blood cells, platelets, plasma and cryoprecipitate—before Lauren finally went home to her now two-month-old baby and husband. She also went home an understandably changed woman. One with a new goal: to spread the word about the colossal need for blood donation around the country.

Ms. Larsen knows she was lucky. She knows that she has the hundreds of strangers who had unselfishly donated their blood to thank for her very survival. But what she doesn't know, or doesn't understand, is why so few people step up to the blood bank to do what those volunteers did: take an hour, hold out their arm and donate their blood.

All told, 4.5 million American lives are saved each year with blood transfusions, and an estimated 38,000 units—5,000 gallons—of donated blood are used each day in the U.S.[1] Yet even though about 40,000 Americans donate blood each day, that's barely enough to keep the health care system running, notes James P. AuBuchon, MD, medical director of the Blood Bank and Transfusion Service at Dartmouth-Hitchcock Medical Center in Lebanon, NH. Dr. AuBuchon is also the chair of the Clinical Transfusion Medicine Committee of the American Association of Blood Banks, a professional society devoted to education, standard setting and accreditation associated with blood collection and safety.

Despite the patriotic outpouring after the September 11, 2001, terrorist attacks, when 500,000 Americans donated blood,[1] this country's blood supply runs on perilously thin margins. "We've seen an increase in the number of times a year during which the blood

continued on page 2

INSIDE

3 Blood Basics
4 Five Myths About Blood and Blood Donations
5 Putting Blood to Work: Transfusions
6 Ages & Stages: What Your Blood Can Tell You
7 Ask the Expert: Common Questions and Answers About Blood Donation
8 Lifestyle Corner: The Ins and Outs of Donating Blood

Developed in partnership with the American Association of Blood Banks, America's Blood Centers and the American Red Cross.

Volume 25
Number 6

Published six times a year by the National Women's Health Resource Center
157 Broad Street, Suite 315
Red Bank, NJ 07701

1-877-986-9472 (toll free)

www.healthywomen.org

This newsletter was produced with the support of an educational grant from Johnson & Johnson.

For subscription inquiries, address changes or payments, call: 1-877-986-9472 (toll free)
or email: info@healthywomen.org.
Write: National Women's Health Report,
157 Broad Street, Suite 315, Red Bank, NJ 07701

WOMEN & BLOOD DONATION continued from page 1

supply runs dangerously short," says Dr. AuBuchon. "It used to be only after the holiday period and at the end of summer, when people are on vacation. But now we're seeing more frequent appeals for donations just because supply has not kept up with demand."

It wouldn't take much to improve the situation. Just a five percent increase in the number of people who donate—about 40 more people in each state every day—would be enough to pull the nation's blood supply from the brink of disaster, he says.

Shrinking Donor Pool

A major reason for the blood shortage is that even though 60 percent of the country's population is eligible to donate blood, only about five percent does.[1] There are three main reasons for the shrinking numbers, according to Louis M. Katz, MD, president of America's Blood Centers.

1. Changing demographics. "The generation that we have always depended on since the 1950s to give blood, the World War II generation, is getting older and fewer," says Dr. Katz. Baby boomers and the generations that follow just don't donate as much. "Whether that's because of a difference in lifestyle or a difference in the level of altruism, or because we as a blood community are not effectively appealing to these generations, isn't clear," he says. "But it's probably a bit of all three."

2. Increasing need for blood. As surgeries become more complex and cancer treatments more aggressive, and as people live longer, this country uses about five percent more blood every year, explains Dr. Katz.

3. Increasing blood donor rejection rate. Beginning with the AIDS epidemic in the early 1980s, the blood supply has gotten much safer. But that's required turning away more and more potential donors. "We have increasingly sophisticated and sensitive tests, and we're asking all kinds of questions that weren't asked before," notes Dr. Katz. For instance, people who have spent three or more months in the United Kingdom between 1980 and 1996 cannot donate blood for fear they could introduce the human version of mad-cow disease, Creutzfeldt-Jakob disease, into the blood supply. "It's a death of a thousand cuts," says Dr. Katz. "Every little thing we do to make the supply safer takes a little more off that margin of availability."

There are other reasons as well. For instance, a study evaluating why people don't donate blood and other organs found that a persistent mistrust of doctors and hospitals and religious misconceptions played a major role. Minorities were particularly likely to avoid donation for these reasons. The study, which involved 20-minute phone interviews with 339 Baltimore, MD, residents, found that African-American and Caucasian women were less willing to donate blood than Caucasian men (36 percent compared to 86 percent). However, only 41 percent of African-American women surveyed said they would donate blood.[2]

Breaking Down Barriers to Donation

"The greatest barrier that prevents people from donating is a lack of convenience and a lack of knowledge of the importance of

donating," says Dr. AuBuchon. A recent survey conducted by the American Red Cross found donors want to donate at or near a hospital, and generally don't want to travel more than 10 miles to donate.[3] That's further reason why the American Red Cross, along with other blood banks, do all they can to bring opportunities to donate to the donors, through work-site and community blood drives, rather than requiring donors to travel to them.

"Once we get into the community sites we're accommodating women who are at home as well as at work," notes Linda A. Chambers, MD, senior medical officer at the American Red Cross' biomedical headquarters in Washington, DC. That's vital, she says, for as family caregivers, women hold a lot of influence when it comes to blood donation. "When a woman donates blood, the message to others is that it is safe and painless and appropriate," says Dr. Chambers. "It's a message that blood donation is a nurturing, selfless and kind act that is very much within the traditional role of women." Also, women receive 53 percent of all blood transfusions.[1]

The American Red Cross survey found that women 17- to 19-years-old are more likely to donate than men in the same age range. But at the other end of the spectrum—the 65- to 74-year-old age range—they are significantly less likely to donate. And when it comes to overall annual frequency of blood donation, men outpace women, donating an average of 1.68 times a year, compared to 1.53 times a year for women.

One reason for the gender differences may have to do with the fact that women who are still menstruating are more likely to have lower blood iron levels than men, says Dr. Chambers. And iron levels are important when it comes to blood donation. The U.S. Food and Drug Administration (FDA) requires that all donors have a blood hemoglobin level of at least 12.5 g/dL, Dr. Chambers notes. So about eight out of every 100 people who turn up to donate blood—nearly all of them women—wind up being turned away, or "temporarily deferred," because of low hemocrit, or red blood cell levels. Overall, about 30 percent of women who try to donate blood are temporarily deferred.[4]

That doesn't mean women can't eventually donate, notes Dr. Katz. They just need to get their red blood cell levels up either through diet or supplements. His organization is testing a program in which women with low hemoglobin levels receive a supply of supplemental iron to take at home. When they finish the last pill, they're eligible to donate again. The hope is that this will not only improve a woman's hemoglobin level, but also increase the number of women who donate after deferral. Currently, few temporarily deferred people ever return to donate.[3]

At the American Red Cross, more centers are beginning to

BLOOD BASICS

Blood cells–red, which carry oxygen, white, which fight infection, and platelets, which help with clotting–are produced in your bone marrow. They are carried throughout your body in plasma, a pale yellow mixture of water, proteins (produced primarily in your liver) and salts. There are four main types of blood, and each type can be either positive or negative.(See chart below.)

The positive or negative nature of your blood type is called your Rh factor. You may have heard about Rh factor in connection with pregnancy. About 85 percent of Americans have Rh-positive blood. If you have Rh-negative blood and get pregnant by a man with Rh-positive blood, your children will most likely have Rh-positive blood. In every pregnancy, some blood cells from the fetus may pass through the placenta and enter your bloodstream. You may react to these "foreign" invaders as if you were allergic to them, building up antibodies capable of destroying them.

This typically is not a problem for first pregnancies. But complications are possible with future pregnancies. By then, enough antibodies may have built up that when they pass through the placenta to enter the fetus's blood they begin to destroy the baby's blood cells, producing anemia and possibly resulting in the death of the baby.

To prevent complications, women who are Rh-negative who have had an Rh-positive baby should receive an injection of "Rh-immunoglobulin" within 72 hours after giving birth, having an abortion or miscarrying. This safeguard prevents sensitization. In addition, expect to have the injection in the 28th week of pregnancy to prevent the few red blood cells that cross the placenta into the mother's circulation during pregnancy from starting the immunization process.

Blood Type	Percentage of Population
O+	38*
O-	7*
A+	34
A-	6
B+	9
B-	2
AB+	3**
AB-	1**

**In an emergency, anyone can receive type O red blood cells. People with type O are known as "universal donors."*

***Type AB individuals can receive red blood cells of any ABO type. They are known as "universal recipients." They can also give plasma to all blood types.*

Source: America's Blood Centers.

When it comes to overall annual frequency of blood donations, men outpace women, donating an average of 1.68 times a year, compared to 1.53 times a year for women.

 continued from page 3

Even though about 40,000 Americans donate blood each day, that's barely enough to keep the health care system running.

offer something called "double red blood cell donations." These are a different type of blood donation where, instead of collecting blood into individual collection bags as it comes from the donors' veins, it's collected into a machine. The machine keeps just the red blood cell portion of the blood and returns the other blood elements to the donor. "By doing this, the donor is able to give all of his or her donation as red blood cells (instead of red cells and plasma) and, if he or she has a large enough total blood volume, two full doses of red cells can be collected at one time," says Dr. Chambers. "This allows us to get twice the most important part of the donation from high-priority donors such as group O-negative." Best of all, donors only have to come in once to give the equivalent of two donations.

Unfortunately, many women do not qualify to donate double red cells, says Dr. Chambers, because their blood volume is too low. "But for those who do qualify, double red cells are a nice option."

A Growing Crisis

In a 2000 report from the National Blood Data Resource Center, nine percent of the nation's hospitals reported at least one day in which they had to cancel or postpone elective surgery because of a lack of red cell units, says Dr. AuBuchon. Half of those hospitals had to do this for at least two days. Additionally, one-fourth of the hospitals could not meet their non-surgical blood requests at least one day, and for those experiencing such shortages, half were not able to meet it on at least five days.[5] "I can tell you that, since then, things have gotten worse, not better, in terms of the blood supply," he says.

Overall, all agree, the nation's blood supply is shrinking at the very time when it is most needed. Lauren Larsen, who now works full-time spreading the word about blood donation, sees that clearly. As to why she's chosen this as her life's focus, the reason is simple: "I realized that people gave of themselves through blood donation to keep me alive. So now I spend my time speaking at events across the country to recruit more blood donors as a way of helping future blood recipients," says Ms. Larsen. ✘

Five Myths About Blood and Blood Donation

1. **Myth. You can get a blood-borne disease by donating blood.**

   Fact. All materials used to collect blood are new. They have been sterilized by the manufacturer and have never been used before. They are thrown out immediately after use.[6]

2. **Myth. I can't donate during my menstrual period.**

   Fact. You can donate when you are menstruating as long as you feel OK.[6]

3. **Myth. I only need to donate once a year.**

   Fact. You can donate every 56 days–the time it takes your body to replace the red blood cells and iron lost after donating. Thus, you can donate six times a year.[1]

4. **Myth. I can be paid to donate blood.**

   Fact. Donating blood is a strictly volunteer activity. There are plasma centers in some cities, however, where you can receive compensation for donating plasma, the fluid that transports blood cells.[1] Plasma donors are expected to be available and donate much more frequently, as often as twice a week.

5. **Myth. So many people donated after September 11, 2001, that more blood simply isn't needed.**

   Fact. Blood products are perishable. Red blood cells have a shelf life of 42 days, platelets just five days. Blood donations are needed every day, 365 days a year.[1]

Resources

American Red Cross
2025 E Street, NW
Washington, DC 20006
1-800-448-3543
http://www.redcross.org
http://www.givelife.org
A leader in blood collection, safety and development. Organizes local blood donation drives throughout local communities. Visit http://www.givelife.org, or call the American Red Cross to learn where to donate blood.

America's Blood Centers
725 15th Street NW, Suite 700
Washington, DC 20005
1-888-872-5663
http://www.AmericasBlood.org
An international network of local, non-profit, community blood centers. Call the toll-free phone number above or visit the ABC's Web site for information on local blood centers.

American Association of Blood Banks
8101 Glenbrook Road
Bethesda, MD 20814-2749
1-866-376-6968
http://www.aabb.org
The American Association of Blood Banks promotes the highest standard of care for patients and donors in all aspects of transfusion medicine by setting the standards for the collection, processing, testing and administration of blood components and somatic cells. Toll-free phone number and Web site provide information on where to donate blood.

National Heart, Lung, and Blood Institute
NHLBI Information Center
PO Box 30105
Bethesda, MD 20824
301-592-8573
http://www.nhlbi.nih.gov
Provides leadership for a national program in diseases of the heart, blood vessels, lung, and blood, blood resources and sleep disorders. Web site offers wide range of information.

Putting Blood to Work: Transfusions

More than half of Americans say they are "moderately" or "very" concerned about the safety of blood transfusions, and 36 percent believe the U.S. blood supply is unsafe.[7]

Is there any merit to their concerns? Yes and no. The truth is that the U.S. blood supply today is so safe that the risk of contracting a disease such as HIV can only be estimated through mathematical techniques.[8]

However, despite ever-increasing vigilance and safety measures by hospitals to avoid transfusion errors—errors in which patients are given the wrong blood for their blood type—the public's concerns are not completely unfounded. Of the more than 4.5 million blood transfusions in the U.S. each year, transfusion errors do pose a small, but not insignificant risk to patients, occurring at the rate of two errors a day nationwide, on average.[1] How many of these errors result in death is unknown though, since, until fairly recently, hospitals weren't required to report transfusion-related errors. Still, any kind of reaction to the wrong blood can slow your recovery and increase your risk of complications. And the reason for most of these errors? Human mistakes.

"Someone from the lab can go up to a room and draw a blood sample from a patient and mislabel it and take it back to the lab and then the wrong unit is sent to the wrong patient," says Louis M. Katz, MD, president of America's Blood Centers. Or, in the heat of crisis in the emergency room, someone forgets to double-check a patient's identity and match it with the blood type.

To avoid these errors, some hospitals have begun implementing bar code systems for blood transfusions, in which nurses use a scanning wand like those used in grocery stores to make sure the code on the container of blood matches the code on the patient's bracelet. Georgetown University Hospital in Washington, DC, for instance, hasn't had a single fatality related to transfusion error since implementing the bar code system nearly four years ago. But overall, less than five percent of hospitals nationwide have implemented such technology.[9]

In addition to your risk of getting the wrong blood, other risks, include bacterial contamination of blood products, and a condition called transfusion acute-related lung injury. "We also wonder if transfusion can affect the immune system and cause some mild immune suppression," says Dr. Katz.

For these and a multitude of other reasons—not the least of which is the chronically short blood supply—researchers have been scrambling to discover "artificial" blood products and means of maintaining blood products longer. For instance, clinical trials are underway on a biochemically manufactured solution that contains hemoglobin, but not red blood cells.[10] But this kind of research is progressing slowly, notes Dr. Katz, with safety issues a key concern.

One of the simplest ways to stretch the tight blood supply might be changing physician practices about when patients get transfusions, says Dr. Katz. A growing body of scientific literature suggests that one in every four or five transfusions might not be necessary, he says. Traditionally, most doctors have transfused patients when their hemoglobin levels drop to 10 g/dL, says Dr. Katz. "But we now recognize that even in critical care units it should be 7 or 8 g/dL for many patients," he says.

More conservative transfusion guidelines could increase the available blood supply with no increase in donations because units saved would be available for other patients, notes Dr. Katz. Thus, the Mississippi Valley Regional Blood Center, for which Dr. Katz serves as medical director, has a full-time "transfusion safety officer" who works with hospitals on these and other transfusion-related items. But patients have a big role to play, too, he says. "Informed patients have to say to their doctors, 'Is this transfusion necessary?'" ✖

The truth is that the U.S. blood supply today is so safe that the risk of contracting a disease such as HIV can only be estimated through mathematical techniques.

For more information on women and blood donations, visit www.healthywomen.org.

What Your Blood Can Tell You

Blood comprises only nine percent of your total body weight. And, just a few drops are all that's needed for the most common blood test, a complete blood count, or CBC. It includes five major measures that provide valuable clues to your overall health.[11]

1. White blood cell (WBC) count. This measures the number and type of white blood cells, which fight infection. The "differential" is the measurement of the five main types of white blood cells: neutrophils (polys, or mature neutrophils, and bands, or young polys), basophils, eosinophils, lymphocytes and monocytes. A normal overall WBC range is 3.4-9.6 K/mm^3, but you also want to know the results of the differential:

- Normal range for neutrophils: 1,000 to 6,000/mm^3
- Normal range for lymphocytes: 15 to 51/mm^3
- Normal range for monocytes: 1 to12/mm^3
- Normal range for eosinophils: 0 to 8/mm^3
- Normal range for basophils: 0 to 8/mm^3

2. Red blood cell (RBC) count. Normal range is 3.58 to 4.99 mil/mm^3. The mean cell volume (MCV) measures the approximate size of the red blood cell. A normal range is 77 to 99.

3. Hemoglobin (HGB) value. Normal range is 11.1 to 15.0 g/dL. Low hematocrit and hemoglobin levels mean you could have anemia.

4. Hematocrit (HCT) value. Normal range is 31.8 to 43.2 percent.

5. Platelet count. Normal range is 162 to 380 K/mm^3. Without enough platelets, you could have a condition called "thrombocytopenia," which causes you to bruise easily.

Your health care professional may also order a comprehensive metabolic panel (CMP). These 14 tests, routinely ordered as part of a blood work-up for a medical exam or yearly physical, provide important information about the current status of your kidneys, liver, and electrolyte and acid/base balance as well as your blood sugar and blood proteins. For best results, you should fast 10 to 12 hours prior to the test.[12]

Not all tests described below have ranges listed for them because the American Association for Clinical Chemistry notes that reference ranges for many tests are specific to the laboratory that produces the results. Your test results should show you a "normal" range next to your result.[13]

- **Glucose levels.** Screens for and monitors diabetes, pre-diabetes and low blood sugar. Normal range is from 70 to 109 mg/dL. Levels from 110 to 125 mg/dL suggest pre-diabetes, and 126 mg/dL and above probable diabetes.
- **Calcium.** Measures calcium levels in your blood.
- **Albumin.** Screens for a liver disorder or kidney disease, or evaluates nutritional status.
- **Total protein.** Screens for certain liver and kidneys disorders, as well as other diseases, and helps determine your nutritional status.
- **Electrolytes.** Screens for sodium, potassium, carbon dioxide/bicarbonate and chloride levels. Among other things, provides an overview of your cardiovascular health.
- **BUN (blood urea nitrogen) and creatinine.** Evaluates your kidney function.
- **Liver function tests.** Includes ALP (alkaline phosphatase), ALP or SGPT (alanine aminotransferase), aspartate amino transferase (AST or SGOT) and bilirubin.

Other blood tests you should periodically have include:

- **Thyroid test.** The American Thyroid Association recommends adults age 35 and older should be screened every five years for thyroid problems using the TSH test.
- **Cholesterol test.** The National Cholesterol Education Program of the National Heart, Lung, and Blood Institute recommends everyone 20 and older have their blood cholesterol measured at least once every five years. Ideally, your total cholesterol should be below 200 mg/dL, your LDL (or "bad" cholesterol) below 100 mg/dL and your HDL ("good" cholesterol) 60 mg/dL or more.[14]

Common Questions and Answers about Blood Donation

Q I really want to donate blood, but I'm absolutely terrified of needles. What should I do?

A Donating blood does involve a needle, and probably always will involve a needle. But I would still encourage you to try. Fear can be too easy an excuse. Just keep in mind the patient at the other end of the donation who probably also doesn't like needles, but who is now sick, vulnerable and dependent on transfusion being available. This person doesn't have an option when it comes to needles.

After your first donation, you will know how easy and relatively painless it is. But for that first time, try to bring along a friend who has previously donated blood for support. Once you're there, you will see that other donors are not having a terrible time. In fact, chances are that you, like the other donors, will enjoy participating and feel proud of yourself when it's over.

If you're nervous, tell the staff. We deal with people all the time who are uncomfortable and we know how to make them more comfortable by explaining what to expect before, during and after donating blood. For example, some people feel lightheaded after donating. Our staff also knows how to handle these situations and how to get you through them. Then, we celebrate your success with you when you're finished.

After your first donation, of course, we hope you'll come back as soon as you can!

Linda A. Chambers, MD
Senior Medical Officer,
Biomedical Headquarters
American Red Cross
Washington, DC

Q **Should I donate my own blood prior to having surgery?**

A This is called an autologous blood donation, and it was quite popular in the early 1980s when the risk of HIV infection was very real. But today, it's not worth doing if your community has a robust blood supply.

Although autologous donations can spare you some of the very low infectious risks of using the available blood supply, from a cost/benefit standpoint it's a very expensive option to prevent a very few bad outcomes. Cost-benefit estimates tell us that the use of autologous donation to prevent virus transmission can cost hundreds of thousands of dollars, if not millions, per infection avoided.

Half of all autologous donor blood doesn't get used, however, and must be discarded. Plus, it's possible for you to donate your own blood and have a reaction to the donation, or your donation can be mixed up with someone else's and used for the wrong patient.

The point is that these risks, though small, are greater than the risks autologous donation is used to prevent. My personal opinion is that, under most circumstances, the best transfusion option for medically needed transfusion is the community blood supply. Having said that, I should also add that, to my knowledge, all blood centers today offer the option of autologous donation for the peace of mind of those patients who are concerned.

Louis M. Katz, MD
President, America's Blood Centers
Washington, DC
Medical Director, Mississippi Valley
Regional Blood Center
Davenport, IA

References

1 *How to Give Blood, 56 Blood Facts. America's Blood Centers. 2002.*
2 *Boulware LE, Ratner LE, Cooper LA, et al. Understanding disparities in donor behavior: race and gender differences in willingness to donate blood and cadaveric organs. Med Care. 2002 Feb; 40(2):85-95.*
3 *Donor Strategy Department Research, American Red Cross, 2002-2003.*
4 *Based on interview with Louis M. Katz, MD, president of America's Blood Centers.*
5 *National Blood Data Resource Center Annual Report. 2000.*
6 *Everyone Can Give the Gift of Life. National Heart, Lung, and Blood Institute. Available at http://www.nhlbi.nih.gov. Accessed October 2003.*
7 *Blood Supply Safety Under Fire. The Regional Center for Blood Conservation. http://www.svch.net. Accessed October 2003.*
8 *Goodnough LT, Brecher ME, Kanter MH, et al. Transfusion medicine. First of two parts–blood transfusion.N Engl J Med. 1999 Feb 11;340(6):438-47. Review. No abstract available.*
9 *Landro L. The Informed patient: Blood mix-Ups Can Be Deadly, but they Also Can Be Prevented. Wall Street Journal. Feb. 27, 2003. pg. D4.*
10 *Anton N, Hitzler JK, Kavanagh BP. Treatment of life-threatening post-haemorrhagic anaemia with cell-free haemoglobin solution in an adolescent Jehovah's Witness. Br J Haematol. 2002 Sep;118(4):1183-6.*
11 *Understanding Your Complete Blood Count. Warrant Grant Magnuson Clinical Center. National Institutes of Health. April 2000. http://www.cc.nih.gov. Accessed October 2003.*
12 *Lab Tests Online. http://www.labtestsonline.org. Accessed October 2003.*
13 *Reference Ranges & What They Mean. http://www.labtestsonline.org. Accessed October 2003.*
14 *"High Blood Cholesterol–What You Need to Know." National Heart, Lung, and Blood Institute. http://www.nhlbi.nih.gov/health/public/heart/chol/hbc_what.htm. Accessed December 2003.*

The Ins and Outs of Donating Blood

I hope you're ready now to donate blood. To find a blood center near you, call the toll-free numbers listed on page 4 for the American Association of Blood Banks, America's Blood Centers or the American Red Cross. Or visit their Web sites.

Once your appointment is set, it's time to get ready. First, make sure you're eligible to donate. Although guidelines vary with each blood center, all follow certain mandated requirements.

To be eligible to donate blood, you must be in good health and at least 17 years old (although some states permit younger people, with parental consent, to donate). Few centers have any upper age limit. Generally, donors must weight at least 110 pounds and all must pass a physical and health history examination given prior to donation.

If you have experienced any of the following, you may find yourself "temporarily deferred." This means you can't give blood that day, but you can come back once the appropriate amount of time has passed or the situation has changed:

- Have had a heart attack in the last six to 12 months.
- Have had malaria in the last three years.
- Have visited areas where malaria is found in the last year.
- Have received blood, plasma or other types of blood components in the last year.
- Have been tattooed in the last year.
- Have had cardiac surgery in the last year or have not completely recuperated from the surgery and are taking cardiovascular medicine.
- Have been exposed to someone with hepatitis within the last year.
- Are not feeling well the day of the blood donation.
- Have taken antibiotics within the last 24 to 72 hours.
- Are pregnant or have had an abortion in the last six weeks.

If you meet any of the following criteria, however, you will be "permanently deferred." That means you can't donate blood. But you can still help. Ask your blood center about volunteer opportunities, or offer to organize a community or workplace blood drive.

People who have experienced any of the following may not donate blood:

- Have had hepatitis at age 11 or older.
- Are at high risk of contracting the HIV virus/AIDS.
- Have spent any cumulative period of three or more months in the United Kingdom from 1980 through 1996.

The day you're scheduled to donate, take these steps:

- Eat heartily and drink non-caffeinated, nonalcoholic fluids before you donate.
- Don't exercise immediately before you donate blood.
- Arrive on time.
- Bring a picture ID. You'll be asked to prove your identity.
- Relax during the donation, which only takes about 10 to 15 minutes.

What to Expect

When you arrive, you'll register and answer a series of questions concerning your medical history. Then, medical staff will conduct a health examination and measure your pulse, blood pressure, temperature and iron level. You may feel a little pain when the needle goes in, but some people don't feel any pain at all. It might help to look away while the needle is inserted. You'll lie down for about 10 to 15 minutes while a pint, or unit, of blood is collected.

After donating, you'll be asked to relax for a few minutes while you're served a light snack. While you're resting, ask the staff for a large glass (about 16 ounces) of water. Two studies presented at the 2002 American Heart Association's High Blood Pressure Conference found drinking water before and after giving blood can prevent fainting.

After Donating

After donating you should avoid muscle exercises, rough movements and weight lifting or picking up heavy objects for the first five hours after donation. Then mark your calendar: You can donate again in 56 days. If you donate every 56 days, you'll be able to donate six times a year. Over your lifetime, then (or until age 76) you could conceivably donate 48 gallons of blood!

By Pamela Peeke, MD, MPH
NWHRC Medical Advisor

Dr. Peeke is a Pew Foundation Scholar in Nutrition and Metabolism, and Assistant Clinical Professor of Medicine at the University of Maryland in Baltimore. She writes about health and lifestyle issues important to all women.