



Why Donate Blood?

Someone in the United States needs a blood transfusion every two seconds, according to the American Red Cross. This may be because of surgery, a car accident, a gunshot wound, an acute illness like cancer or anemia, or a chronic illness like hemophilia; it can be a person of any age, race, socioeconomic status, overall health or blood type.

According to the Community Blood Center, about one in seven people who enters a hospital needs blood, which is about 4.5 million Americans annually. The average blood donation recipient requires three pints of blood during his or her stay. Hospitals in the United States and Canada use about 43,000 pints of donated blood every day.

How important is blood donation? Here are a few things to consider.

Because it cannot be manufactured, health care providers around the country count on people voluntarily donating their blood. One pint of blood can help up to three people.

To protect the blood supply, there are stringent rules for donating blood, and only about 37 percent of Americans are even eligible to donate. Of those who are eligible, only 10 percent donate annually. Once blood is donated, health care providers run 13 tests on each pint, 11 of which are for infectious diseases.

While health care providers can use donated blood throughout the year, blood is most needed during the summer and winter holidays. All blood types are needed, but blood centers often are short of type O and type B. O nega-



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tive is the universal blood type for donation, meaning the blood can be given to any recipient, and AB is the universal recipient.

Blood donors must be at

least 17 years old and weigh at least 110 pounds. Donors can only give blood every two months; although the body replaces the fluid in a few hours and the red blood cells

in four weeks, you need eight weeks to restore the iron lost after donating. People who donate told the Community Blood Center in a survey that their No. 1 reason for giving

blood is to help other people.

If you start donating blood at 17 and donate every 56 days, as allowed, you'll donate 46 gallons of blood by the time you're 80.

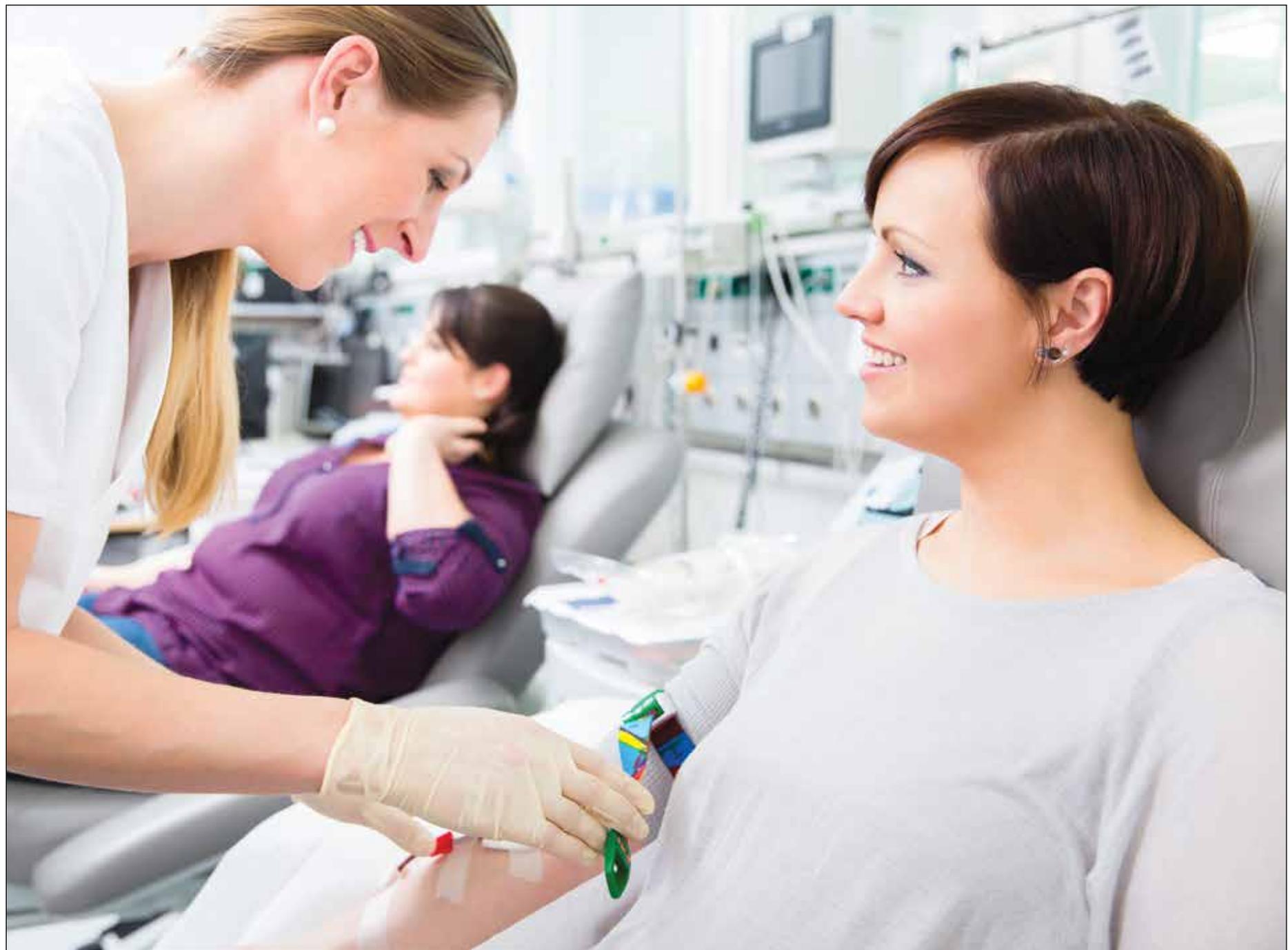
Blood Donation Process

The entire process of donating blood takes about an hour, but most of that time is paperwork, a few medical tests and a review of your health history. The actual donation only takes 10-15 minutes. The American Red Cross laid out the process and what you can expect when you give blood.

When you donate, wear a short-sleeved shirt or a shirt that you can roll up to the elbow. Take government-issued photo ID. You also will need to provide your mailing address. An employee will ask a number of questions about your health history, such as certain illnesses you may have been exposed to and any medications, including over-the-counter meds, that you may be taking. They will also ask about travel history and check your pulse, temperature, blood pressure and hemoglobin level. The last, which requires a drop of blood, checks to ensure you have enough iron in your blood. All of this is done in private.

Once you're deemed healthy enough, the phlebotomist will cleanse a small area on your arm, usually the inside of the elbow, and insert a sterile new needle. During the donation, you can lie back and not worry about much except for pumping your hand every few seconds to encourage the blood flow. Once you're done, there should not be much residual pain around the needle stick, though keep the bandage on for a few hours. Platelet, plasma and red blood cell donation also may be options.

When you're done, you can remain seated for a few minutes or move to the waiting



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room if you feel a little woozy. Even if you feel fine, resting a few minutes is recommended. Grab a cookie and juice or some other snack on your way

out as well; although your body will replace the blood you donated very quickly, you need to make sure you stay hydrated and eat a good meal

that includes meat or other foods that are high in iron to make up for the loss. Avoid strenuous activity within a few hours of donating; a long run

or hike, participating in a sporting event or weight-lifting right after donating blood can cause you to feel light-headed or pass out.

Donating Plasma

Plasma is a pale yellow mixture made up of water, salts and proteins, though water is by far the largest part of plasma at 90 percent. It makes up 55 percent of blood volume. It is the essential starting material to create protein therapies that treat rare, chronic, often genetic diseases.

Like whole blood, it cannot be manufactured in a lab, so labs and medication producers rely on donors. According to nonprofit organization Donating Plasma, these plasma protein therapies, known as PPTs, replace missing or deficient proteins that are obtained through human plasma. Most such patients will require regular infusions throughout their lives.

HOW DO I DONATE PLASMA?

Plasma is collected through plasmapheresis, which separates plasma red blood cells and the other components of blood; the rest of the blood is returned to the donor. All of this takes place at a plasma donation center, not a regular blood donation site. Donors must have government-issued ID, and when they arrive at the center, they fill out a short health and lifestyle history questionnaire. Donors also undergo a health screening and initial blood screening and are checked against the National Donor Deferral Registry to ensure they are eligible to donate. Donors must pass medical screens and tests for viruses transmitted by blood, such as HIV and hepatitis, on two separate occasions to ensure the donor plasma is safe to use.

The donors then get a needle in each arm, one of which removes whole blood from the body, where it is run through the system to remove plasma, and the remainder of the blood is returned through the other arm.

HOW LONG DOES IT TAKE? DO I GET PAID?

The entire process the first time



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around takes about two hours. Return visits take about 90 minutes; the actual plasmapheresis typically takes about an hour.

Plasma donors often get paid for their donations, but plasma for which donors have been paid cannot be given to

patients. It is used for research. The amount of compensation depends on the center.

HOW OFTEN CAN I DONATE PLASMA?

Unlike whole blood donation, you

can donate plasma twice a week, according to the Food and Drug Administration, as long as you wait at least two days between donations.

You must donate plasma again within six months of your first donation for the plasma to be used in creating therapies.

Roadblocks to Donation

Just more than a third of Americans are even eligible to donate blood.

Others aren't able to donate either because of age, a health condition or traveling to a country with diseases that can be spread through the blood.

Many conditions, including heart disease, cancer and chronic conditions like diabetes, do not permanently eliminate people from donating blood, though many will temporarily keep you off the list depending on your symptoms the day of the donation or what treatments or medications you're taking. Check with the American Red Cross or other blood centers if you aren't sure.

Come back another day if you:

- Have an acute infection, a fever or are coughing up phlegm;
 - Have blood pressure above 180/100 or below 90/50;
 - Have gotten certain immunizations in the last few weeks;
- or
- Have been diagnosed with the Zika virus.

Wait for 12 months if you:

- Have received a blood transfusion, unless it was your own blood;
- Successfully finished cancer treatment with no recurrence (some types of cancer);
- Are a man who had sex with another man;
- Live with or have had sexual contact with someone who has hepatitis;

- Have been incarcerated for more than three days;
- Went to an area where malaria is found;
- Have completed treatment for syphilis or gonorrhea; or
- Got a tattoo in a state that does not regulate tattoo facilities: D.C., Georgia, Idaho, Maryland, Massachusetts, Nevada, New Hampshire, New York, Pennsylvania, Utah and Wyoming.

You are unable to give blood if you:

- Have a clotting disorder or take certain blood thinners (aspirin is OK);
- Had a blood transfusion since 1980 in the United Kingdom or France because of concerns about variants of the human form of mad cow disease;
- Have had a cancer of the blood, such as leukemia;
- Have received a brain covering transplant or human pituitary growth hormone;
- Have a blood relative with Creutzfeldt-Jakob disease (mad cow);
- Have had Ebola;
- Have tested positive for hepatitis B or C, even if you never had any symptoms;
- Have AIDS or had a positive HIV test; or
- Have spent long periods of time in countries with variant Creutzfeldt Jacob Disease (mostly Europe) during the years 1980 to 1996.



Organizing a Blood Drive

Although donors can go directly to blood donation centers to give blood, many schools, churches, businesses, nonprofit organizations or clubs host blood drives for their members and others in the community. It may seem like a big undertaking, but organizations like American Red Cross and Vitalant have made the process of planning straightforward.

WHAT YOU NEED

Location: It should be a large, open room like a gym with enough space not only set up tables and beds but also to provide enough privacy for donors to discuss their health history. Some Vitalant offices have bloodmobiles, in which case you need a suitable outside location to park the bus.

Volunteers: Members can help recruit potential donors, help with advertising and provide support during the blood drive through checking people in or other tasks. You will get advice and resources to help you recruit donors.

Donors: Generally, blood donation centers ask for a minimum number of donors. Vitalant asks for 30 people who are committed to participate. If you're not sure you can do that, they have tools to measure the level of interest and resources to help you get those donors.

WHAT THE ORGANIZATION PROVIDES

Expertise: You'll work with a representative from the blood center who will help you with scheduling, provide you the tools you need to set it up, offer advice and answer any questions you have.

Equipment, supplies and staff: The blood donation center brings everything to



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your location and does setup and takedown. This includes providing snacks and drinks for blood donors. Trained staff will do all of the health history and tests and blood donation.

OTHER OPTIONS

The Red Cross has a num-

ber of education programs, including Pint-Size Hero and Future Blood Donor programs for students in kindergarten through eighth grade. The organization provides age-appropriate curriculum and classroom activities and donor recruitment and recognition tools as well.

Among other things, students get credit for encouraging their parents to donate.

The Red Cross also offers scholarships and gift cards to high school and college students who host blood drives when school is not in session. Check out the Leaders Save Lives program for more infor-

mation on how to earn rewards and the process of hosting.

If you're not sure about hosting, consider volunteering at another blood drive to experience the process beforehand and see if it would be a good fit for your organization.

Other Common Questions

Donating blood is safe, painless and a great way to help your community, but if you've never gone before, or if you're trying to recruit people to donate, you may have questions beyond the simple logistics of the process. The American Red Cross explains the journey your blood takes, why you have to answer so many questions and more.

WHAT HAPPENS TO BLOOD AFTER IT'S DONATED?

A blood center employee takes several test tubes of blood from each unit; those samples go to a lab and the units of blood are taken to a center. All are labeled with an identical bar code. Whole blood donations are separated; plasma may be processed into further components, while red cells and platelets are separated from the white blood cells, which reduces the possibility of a recipient reacting negatively to the transfusion.

The blood that goes to the lab is tested for infectious diseases and to check for blood type. If there is a positive test the blood is discarded and you will be contacted.

HOW LONG DOES BLOOD LAST?

According to the American Red Cross, donations are tested, processed and available for use within a day or two of your donation. After it's donated, whole blood is separated into components; red blood cells can be stored in refrigerators for up to six weeks, while plasma can be stored for up to a year. Platelets must be used within five days.

CAN I DONATE TO MYSELF?

Yes. According to Memorial



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Sloan Kettering Cancer Center, surgical patients may donate their own blood prior to surgery; this is the safest option for transfusion. Your doctor will determine if you're healthy enough to do so. You may donate weekly prior to surgery, stopping at

least five working days before you'll need it.

WHAT IS A POWER RED DONATION?

Red blood cells are the most commonly used component of blood. A Power Red donation uses a process simi-

lar to platelet and plasma donations to separate the red blood cells for donation and returns the rest of your blood to you, allowing you to donate twice as many red cells as during a whole blood donation.

This is particularly helpful

for trauma patients, newborns, women who need a transfusion during childbirth and people with sickle cell anemia.

You can donate red blood cells every 112 days. Check with the Red Cross to determine your availability.

Donating Blood Platelets

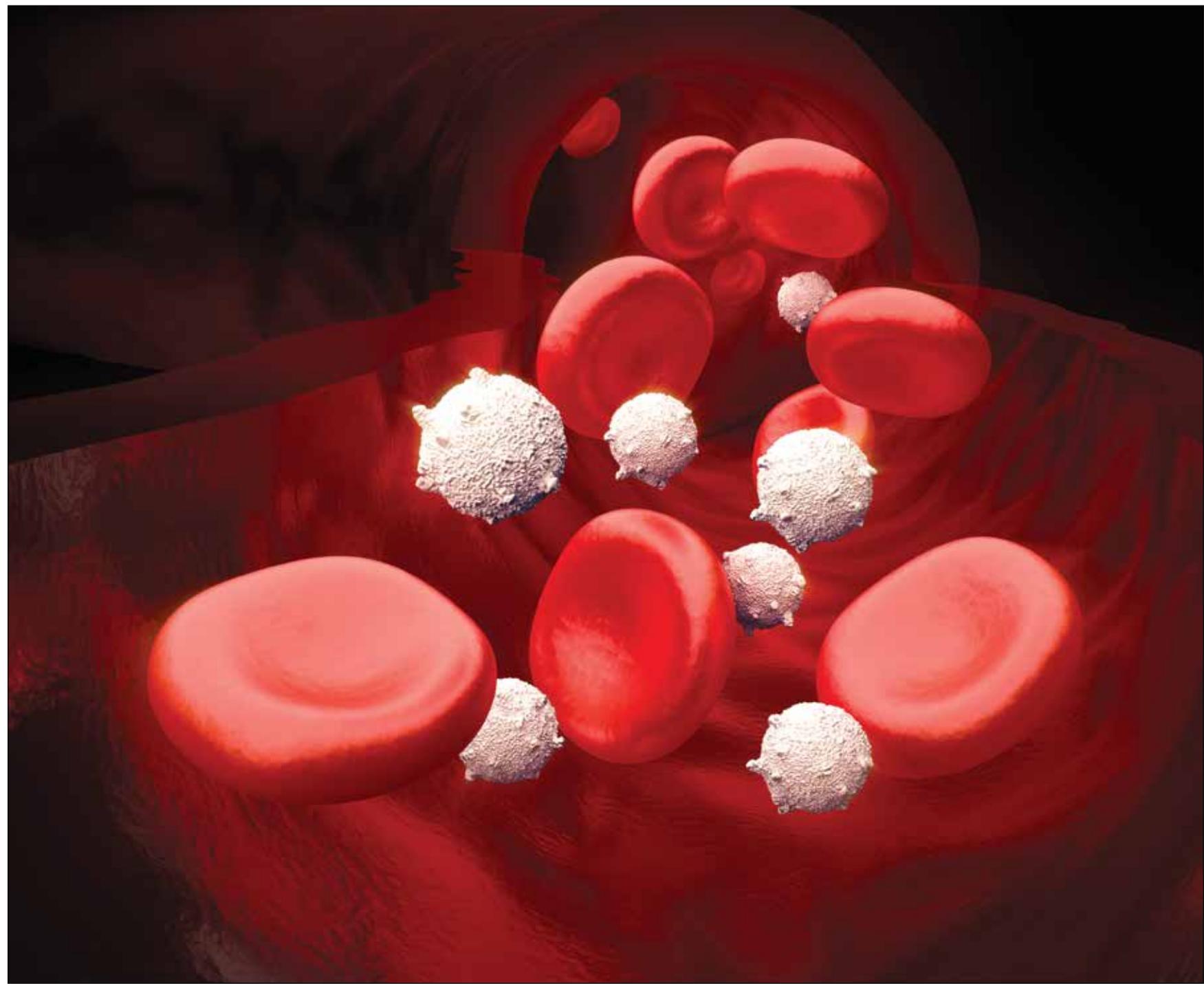
We all know that someone having surgery or who was in a car accident may need a blood transfusion, using donated blood, usually from strangers. But do you know the other components of blood and how doctors and scientists use them to keep people alive and healthy?

Platelets, cells that circulate in and with the blood and bind together when they recognize damaged vessels, contribute to blood clotting, stopping you from hemorrhaging every time you have a small cut. According to the Heart & Vascular Institute at Johns Hopkins Medicine, this component is the smallest of the blood cells; in their inactive form, they're shaped like small plates. When they receive a signal about damage, they transform into an active form, growing long tentacles to aid in making contact with the broken blood vessel.

The guidelines for donating platelets are about the same as for donating blood: general good health, weigh at least 110 pounds and be at least 17 years old. However, platelet donors can donate every seven days, though not exceeding six donations in an eight-week period, according to Memorial Sloan Kettering.

The process starts out the same. After doing the health history and a quick check-up, you'll sit in the chair and both arms will be hooked up to an apheresis machine, which collects a small amount of blood, takes out the platelets, and returns the blood to your other arm. The entire process, in which those steps are repeated several times, takes about two hours.

Platelets are frequently donated to people who have trouble with blood clotting. Often, these are people going through chemotherapy, which attacks the bone marrow, where blood cells are created. According to the Dana Farber Cancer Institute, people who have had a stem cell transplant also may need a transfusion of platelets because the treatment can affect bone



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marrow. People undergoing treatment for leukemia and multiple myeloma, including a bone marrow transplant, also may need platelets.

All blood types can donate platelets, but the Red Cross encourages people with type O negative and type B negative blood to donate whole

blood, which offers the most impact for patients. People with type AB blood can make the most impact by donating plasma.