

Giving Blood



All About Blood Types

Blood types are determined by the presence or absence of antigens in the blood. Antigens are substances that can trigger an immune response.

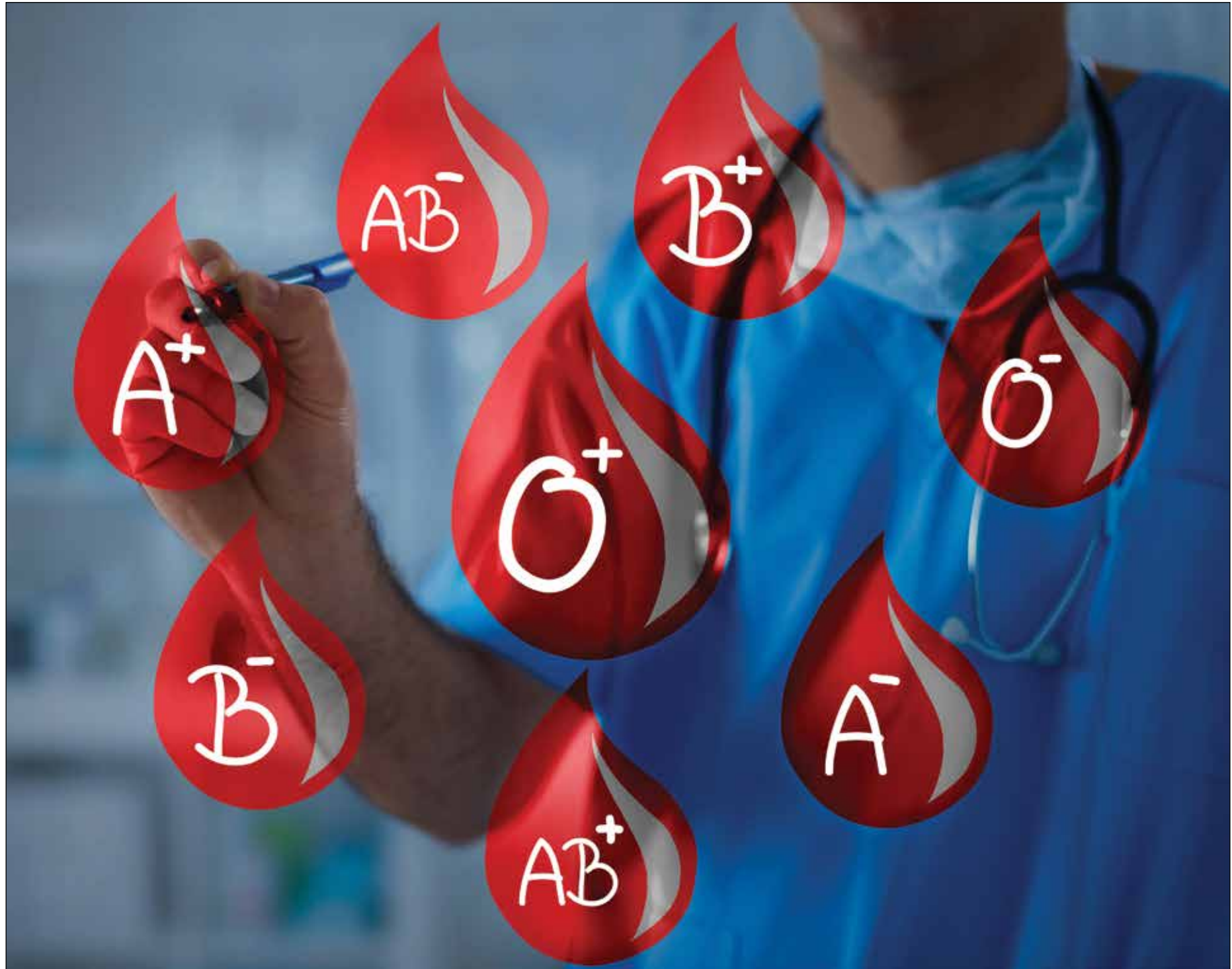
There are four blood groups that are determined by the presence (or absence) of antigens A and B. There is also a protein called the Rh factor, which can be positive or negative. Taken together, these things create the eight most common blood types: A+, A-, B+, B-, O+, O-, AB+, AB-.

- Group A blood types have only the A antigen on red blood cells. The B antibody is present in the plasma. People with type A blood can give to types A and AB.

- Group B blood types are flipped. The B antigen is on the red blood cells and the A antibody is in the plasma. People with type B blood can give to people with types B and AB.

- Group AB blood types have both A and B antigens on the red cells but neither A nor B antibody in the plasma. People with AB blood can only give to other people with AB blood.

- Group O blood types have neither A nor B antigens on red blood cells but both A and B antibodies in the plasma. People with type O blood can donate red blood cells to anyone. They are the universal donor.



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ABOUT THE RH FACTOR

Rh negative blood is given to Rh-negative patients and Rh-positive or negative blood can be given to Rh-positive patients. The rules for plasma are reversed. Your Rh factor is inherited. If a pregnant woman is Rh-negative and her baby is

Rh-positive, the woman's body may produce antibodies that will affect both her and the baby. A person with Rh-positive blood will not make anti-Rh antibodies, so they can receive both Rh-positive and Rh-negative blood.

THE UNIVERSAL BLOOD DONOR

Type O negative blood can be used in transfusions for any blood type, making it in high demand by hospitals. It's used for emergency transfusions and for those with immune deficiencies. More

Black and Hispanic people have type O blood, so it's important that minority populations donate blood, the American Red Cross says. Only 7% of the total population is O negative, so if you are, consider donating as much as you can.

How Do Blood Banks Work?

Think of your blood donations as deposits in a bank — because that’s just what they are. Blood banks collect, separate, test and store the blood until it’s needed. Here’s more from the American Red Cross.

HISTORY

The first blood bank in the U.S. was founded in 1937 by Dr. Bernard Fantus in Chicago. At the time, blood could not be stored for more than a few days and transfusions were done person-to-person, which was dangerous. Dr. Fantus’ work made it possible to collect and store blood for a longer period of time, making blood donation less dangerous and more attractive.

BLOOD BANKS SAVE LIVES

Today, around 13.6 million units of blood are donated every year and about 36,000 units of blood are needed in hospitals every day. Every two seconds, someone in the U.S. needs blood or platelets. Patients needing blood can be trauma victims, such as in a car accident; cancer patients; or have a disease such as sickle cell anemia. A single car accident victim can require as



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many as 100 units of blood.

TYPES OF BLOOD DONATIONS

Whole blood is the most common and most flexible type of blood donation. Whole blood can be transfused as is or separated into red cells, plasma and platelets. That separation means that one donation can save multiple lives.

A Power Red donation takes a concentrated dose of red cells using an automated process that separates red blood cells from other components — plasma and platelets — then returns them to you. It takes a little longer than the regular donation, but it makes a big-

ger impact.

Platelet donations return the red cells and most of the plasma back to you. Platelets are collected at Red Cross donation centers only and cannot be collected at blood drives. A single donation of platelets can yield several transfusable units; it takes five whole blood donations to make up a single transfusable unit of platelets.

In an AB Elite donation, someone with type AB blood gives plasma that can be used for anyone regardless of their blood type. The red cells and platelets are returned to the donor. These kinds of donations can happen only at Red

Cross donation centers.

THE PROCESS

Volunteer blood donors power America’s blood banks. During a typical blood donation, blood banks collect about a pint of blood. The donated blood is taken to a processing center, where it is separated into red blood cells, platelets and plasma. White blood cells are removed to minimize the chance of a reaction in the blood’s recipient. The blood is also screened for diseases such as hepatitis B and C, West Nile virus and HIV, and typed. Red blood cells must be used within 42 days while platelets must

be used within five days.

DISTRIBUTION

Blood can be shipped to hospitals around the clock. Some hospitals keep blood on their shelves, but may also call in for more, especially during large-scale emergencies.

TRANSFUSIONS

When an ill or injured patient arrives at the hospital, doctors determine if they need a blood transfusion and, if so, what type. The donated blood is then pulled either from the blood bank or hospital storage and transfused into the patient.

Who Can Give Blood?

Giving blood is safe and saves lives. But there are rules to keep both the blood donors and the recipients safe. Keep reading to learn more about who can donate blood, according to the Red Cross.

HEALTH

You must be in good health and feeling well. You must also weigh at least 110 pounds and be at least 16 years old in most states. Some donors under 18 may require parental consent or proof of age. Your iron levels must be healthy, and that will be tested before you can donate. You cannot have a fever or an infection and should not be taking a blood thinner.

WHO CANNOT DONATE BLOOD

You cannot donate if you're pregnant. You cannot donate if you've got an acute infection, are on antibiotics for an infection, or if your blood does not clot normally. You cannot donate if your blood pressure is over 180/100 or below 90/50. Some kinds of cancer disqualify you from donating. If you ever received a brain covering transplant, injection of cadaveric pituitary human growth hormone



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before 1985 or have every been diagnosed with Creutzfeldt-Jakob Disease, you cannot donate. You may not donate if you've ever had Ebola or HIV/AIDS.

Pregnancy disqualifies you from donating, as do some kinds of piercings in the last three months and some kinds of organ or tissue transplants.

People with sickle cell disease are not eligible to donate, but people with sickle cell trait are.

Some medications may also disqualify you from donating as well as some lifestyles. Check with your local blood bank or donation center to fully determine your eligibility. Traveling to some areas of the world may also cause you to

defer donation, as will some medications and treatments.

HOW OFTEN CAN YOU DONATE

Wait at least 8 weeks between whole blood donations, at least 7 days between platelet donations and at least 16 weeks between Power Red donations.

UNABLE TO GIVE BLOOD?

If you're unable to give blood, you can help out in other ways. You can volunteer or even host a blood drive through the American Red Cross. You can also make a financial donation to support the organization or any other blood bank in your area.

How Donations Are Used

There is no substitute for blood donations.

No lab can make human blood; the only way to get it is through blood donations.

Every two seconds, someone in the United States needs blood. About 29,000 units of red blood cells are needed every day, along with 5,000 units of platelets and 6,500 units of plasma. Here are some of the reasons.

TRAUMA PATIENTS

This is what most of us think about when we think of who needs blood. Trauma patients have been in car accidents, fallen or been the victim of some situation where their body was grievously injured. The best donation type to help trauma patients is the Power Red donation, the American Red Cross says, because red blood cells carry oxygen throughout the body. AB Elite donations also help, because AB plasma is needed to help stop bleeding.

CANCER PATIENTS

Cancer patients benefit the most from platelet donations, because some cancers and cancer treatments prevent patients from making their own platelets. Platelets can only be stored for five days



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before they must be used.

SICKLE CELL PATIENTS

Sickle cell disease affects 90,000-100,000 people in the U.S., predominantly Black people. It is the most common genetic blood disease in the U.S. About 1,000 babies are born with the disease every year. The illness can require

multiple blood transfusions every year. These patients benefit most from whole blood or Power Red donations, especially from donors of African descent. The ideal blood type for these patients is type O blood.

This disease is one reason why it is important to have a diverse blood supply available. Black people make up 13% of

the total population, but only 3% of blood donors.

BURN PATIENTS

Burn patients benefit most from AB Elite donations because the plasma helps them maintain blood pressure and other vital functions. AB Elite appointments can only happen in donation centers, the Red Cross says.

PATIENTS WITH CHRONIC DISEASES

Some people with chronic diseases need whole blood donations, which is usually the kind of donation you're giving during a blood drive. All blood types are needed. It's important to remember that one whole blood donation can touch several lives once the whole blood is separated into its parts.

Organizing A Blood Drive

One donation can save several lives, but one blood drive can save hundreds. The American Red Cross makes it easy to host a blood drive by providing these tips.

HOST DUTIES

The blood drive host provides a suitable location for the blood drive, such as a large, open space where Red Cross workers can create separate areas for conduction assessments for donation and collecting donations. The host also publicizes the drive and could also organize a recruitment committee to help round up donors. They also schedule donor appointments.

The Red Cross will provide planning assistance and recruitment tools, including online scheduling. It will also bring everything you'll need, including snacks and drinks, and set up and take down the equipment. Most importantly, the Red Cross will provide a trained staff to screen donors and collect donations.

Don't worry about the size of your organization; your Red Cross representative can help you maximize your membership and partner with other groups to host a successful drive.

Remember, donors are required by the Food & Drug



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Administration to be true volunteers, so any gift offered during a blood drive must be offered to all participants of the drive. This also helps ensure that people are honest about their health history. All incentives must be reviewed and approved by the Red Cross.

WHAT YOU GET

Hosting a blood drive shows

your leadership skills and brings your organization goodwill. You can also use the drive to improve team spirit by working together to help your community. The Leaders Save Lives Scholarship Program rewards students who host blood drives when school is out of session. Plus, you get the satisfaction of known you and your organization are helping

save lives in your community.

HOLDING A VIRTUAL BLOOD DRIVE

You don't even have to have a physical location to host a blood drive. The Red Cross SleevesUp program gives you the tools you need to hold a virtual blood drive, including graphics and other promotional materials. It will also show

you campaigns you can join, such as iHeart Radio is the Missing Type and Hunter Hayes SleevesUp.

You can start a virtual blood drive to celebrate a special occasion or champion a cause. It just takes seconds to get started. The Red Cross will give you tools to track your impact so you can see how your campaign is doing.

Before, During and After Donating

Blood donation is an easy way to save lives, but there are some things you can do before, during and after your donation to make sure everything goes smoothly. Here's the scoop from the American Red Cross.

BEFORE YOU DONATE

Make sure you nosh some iron-rich foods such as red meat, fish, poultry, beans, spinach and iron-fortified cereals. Iron is an essential element in blood production. The amount of iron that your body needs will depend on factors including age, gender, body type and your genetics. Talk to your medical professional about what iron level is right for you. You should also get a good night's rest and make sure you're well hydrated before you head out. If you're donating platelets, don't take aspirin for two days before your appointment.

ON THE DAY OF DONATION

You'll need to bring a photo ID, a list of your medications and dosages, and make sure you drink an extra 16 ounces of water before your appointment. Eat a healthy meal, avoiding fatty foods, and wear a shirt with sleeves that you



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can roll up above your elbows. Bring something to do, such as a book or your favorite podcast, while you donate.

While you're at the blood center, you'll also get a mini-physical where staff will check your temperature, blood pressure, pulse and hemoglobin. You might consider bring-

ing in a piece of paper or jotting down your vitals in a notes app on your phone.

AFTER YOUR DONATION

After you're done donating, you should eat a snack and have a drink. The staff at the donation center will provide one for you. Make sure you're

not dizzy before you leave. For the next 24 hours, drink an extra four glasses of liquids and avoid alcohol. Keep your bandages on for the next several hours and avoid heavy lifting and exercise for the rest of the day.

If you get dizzy or feel lightheaded, stop what you're doing

and sit or lie down until you feel better. Keep up with the iron-rich foods and consider a multivitamin to keep up your iron levels, especially if you donate frequently. If your needle site starts to bleed, apply pressure and raise your arm straight up for 5-10 minutes until the bleeding stops.

First-Time Blood Donors

There's a first time for everything, including saving lives by donating blood, platelets or plasma. Even if you're scared, remember that you're not alone and that you can take pride in helping your community. You may also get a cool present, or maybe even just a great snack.

You can donate blood if you weigh more than 110 pounds and are over the age of 16 in most states. Some states require parental consent if you're under 18, so make sure a parent or guardian comes with you to the donation center.

At the donation center, you'll sign in, show a photo identification, and get some reading materials you should make sure you understand before donating. The staff at the center and at blood drives are specially trained in blood donation and can help you through the process.

You'll then be called back for a private interview where you'll be asked completely confidential questions and receive a mini-physical. Staff will check your blood pressure, hemoglobin and pulse.



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They may also check your iron levels. You can share these vital signs with your health care provider at your next visit. After you donate, your blood will also be screened for the sickle cell trait, type and Rh, and some infectious diseases. You'll get

these results in the days after your donation.

During the donation, you'll be seated in a comfortable chair while a pint of blood is drawn. This part only takes about 8-10 minutes. Bring a book, listen to music or a podcast, or chat with neighboring

donors. Try to relax; it'll make the donation go more quickly.

After you donate, staff will give you a snack and a drink. You should sit and rest for 10-15 minutes before going about your day. For the rest of the day, make sure you stay well hydrated, drinking at

least four extra glasses of water and avoiding alcohol. Avoid heavy lifting or strenuous exercise and keep eating iron-rich foods to help your body replenish your blood supply. If you feel dizzy or lightheaded, sit or lie down and rest until you feel better.