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## **Donating Blood and Platelets [1]**

**This section has been reviewed and approved by the [Cancer.Net Editorial Board \[2\]](#), 12/2015**

More than 44,000 blood donations are needed every day, according to the American Red Cross. Many of these donations are given as blood transfusions to people with cancer. A blood transfusion is a procedure in which blood or a blood component is transferred from a donor to a recipient.

Cancer treatments or the cancer itself may cause the need for a transfusion. A person may choose to donate whole blood or specific parts of the blood, such as platelets or red blood cells. However, most donors give whole blood, which is then separated into the various components.

### **Why blood is needed**

Blood carries oxygen and nutrients to every part of the body and takes away waste products. Because blood cannot be made in a laboratory, it must come from a donor. The following are the most commonly needed parts of blood:

- **Platelets.** Platelets are blood cells critical to blood clotting, which is the process that stops bleeding. When cancer and/or cancer treatment causes a person's platelet level to fall too low, a transfusion can reduce the risk of serious or life-threatening bleeding.
- **Red blood cells.** Red blood cells contain hemoglobin, an iron-rich protein that carries oxygen throughout the body to vital organs and tissues. They are used to treat [anemia \[3\]](#), which is a low number of red blood cells. Anemia can be caused by cancer and/or cancer treatment.

- **Plasma.** Plasma is the pale yellow liquid portion of the blood in which cells travel. It carries proteins that help control bleeding and antibodies that help fight infection. A person may need a plasma transfusion if he or she has experienced severe bleeding.
- **Cryoprecipitate.** Cryoprecipitate is the part of plasma that separates as frozen plasma slowly thaws. It contains a higher concentration of blood-clotting proteins than regular plasma. Patients with cancer do not often need this part of blood.

## Who can donate blood

The American Red Cross requires donors to be healthy, weigh at least 110 pounds, and be at least 17 years old. However, some states allow 16 year olds to donate blood with a parent's consent. Other factors that may affect a person's ability to donate blood include:

- **Medications.** Most medications do not pose a problem. However, people taking certain medications, such as blood thinners, must wait for a specified time after taking their last dose before donating blood.
- **A history of cancer.** Most cancer survivors can donate blood if they have been cancer free for 12 months. People who have had a low-risk skin cancer removed do not need to wait. People with a history of blood cancer, such as leukemia or lymphoma, cannot donate.
- **A history of other diseases or conditions.** Certain diseases, such as HIV/AIDS and hepatitis, make a person ineligible to donate blood. Other chronic health conditions may make donation unsafe for individuals.
- **Travel.** A person who has traveled in an area where malaria is common should wait 12 months to donate.
- **Pregnancy.** Pregnant women cannot donate blood. They must wait six weeks after giving birth.

The American Red Cross provides a [complete list of eligibility criteria](#) [4].

## Donating blood

Donating blood is safe and simple. Before giving blood, donors should drink plenty of liquids, eat foods rich in iron, and avoid fatty foods. At the donation center, donors should be prepared to

provide identification and a short medical history, including current medications. Donors then have their temperature, pulse, and blood pressure taken and their hemoglobin levels tested. In addition, donors complete a questionnaire to determine their eligibility to give blood. All information provided to the blood donation center is confidential.

It only takes about 10 minutes to draw one pint of blood, which is the usual amount given during donation. Immediately afterward, donors receive a beverage and a snack to help restore fluids and nutrients to the body. For the rest of the day, donors are advised to drink more fluids and limit exercise.

After blood is drawn, it is tested for blood type (A, B, AB, or O) and Rh type (positive or negative). The blood is also screened for any unexpected red blood cell antibodies that may cause problems for a recipient, as well as for diseases that can be spread to recipients.

Healthy donors are able to donate blood every eight weeks.

## **Donating platelets**

One platelet donation can provide as many platelets as 12 to 18 whole blood donations. This helps keep a person with cancer and a weakened immune systems from being exposed to many donors. During the donation, blood is drawn from the arm through sterile tubing into a centrifuge. This device separates platelets from the rest of the blood and returns the remaining blood to the donor.

This carefully monitored, two-hour process may involve one or both arms, depending on the collection machine. Although donation is easy and painless, some donors experience mild side effects that the donation center staff can help manage. These side effects include tingling sensations, especially around the face and mouth, and feeling chilled. Platelets can be donated every seven days. But most centers limit donations to 24 times per year.

Donors interested in giving platelets should:

- Avoid aspirin or products that contain aspirin at least 48 hours before a donation
- Consume extra calcium and fluids before donating
- Avoid heavy lifting or strenuous exercise immediately after donating

Other blood parts, such as red blood cells and plasma, can also be donated individually. Contact your local blood donation center for more information.

## More Information

[Donating Umbilical Cord Blood](#) [5]

[Donating Bone Marrow](#) [6]

## Additional Resources

American Red Cross: [Donation FAQs](#) [7]

American Red Cross: [First Time Donors](#) [8]

America's Blood Centers: [Where to Donate](#) [9]

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### Links

- [1] <http://www.cancer.net/navigating-cancer-care/diagnosing-cancer/tests-and-procedures/donating-blood-and-platelets>
- [2] <http://www.cancer.net/about-us>
- [3] <http://www.cancer.net/node/25242>
- [4] <http://www.redcrossblood.org/donating-blood/eligibility-requirements/eligibility-criteria-topic>
- [5] <http://www.cancer.net/node/24503>
- [6] <http://www.cancer.net/node/24502>
- [7] <http://www.redcrossblood.org/donating-blood/donation-faqs>
- [8] <http://www.redcrossblood.org/donating-blood/first-time-donors>
- [9] <http://www.americasblood.org/where-to-donate.aspx>