

There is no substitute for **blood.**

*An
introduction
to what
makes this
precious
human
resource
unique.*



 **New York**
Blood Center

Blood
can't
be
made
in a
laboratory.

Only the
human body
can produce
this life-saving
fluid.



Donate **blood** now...
people can't live without it.

Red blood cells and platelets flow i



What is **blood**?

To the naked eye, blood looks like a red liquid, but is actually made up of different components – billions of red and white blood cells and platelets in a pale, straw-colored fluid called plasma.

Blood is unique. It can't be manufactured and animal blood can't replace it. People are the only source of blood for those who need this life-saving fluid.

Red **Blood** Cells

Red blood cells (also called erythrocytes) get their color from the iron-rich hemoglobin they carry.

Hemoglobin provides the fuel, or energy, for all the work your body does. Hemoglobin picks up and carries oxygen as blood travels through your lungs, and releases it to cells throughout your body.

Similar to an exhaust system, red blood cells exchange oxygen for carbon dioxide. When you breathe, you inhale fresh oxygen. When you exhale, you releases excess carbon dioxide that has been brought to your lungs by blood.

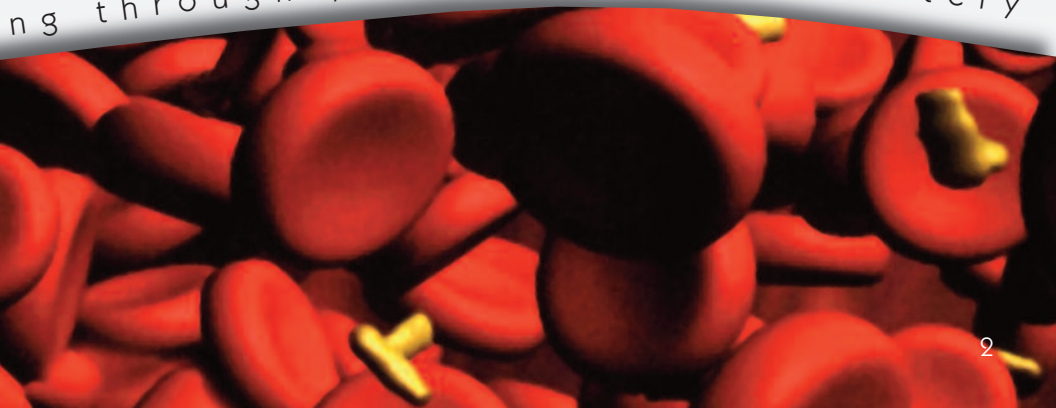
White **Blood** Cells

Your body is constantly at battle with invaders. Every day, germs (viruses and bacteria) that find their way into your body have the potential to make you ill. White blood cells – the principal components of your immune system – are continually on the lookout for foreign substances and signs of disease, and spring into action to combat invaders when they attack.

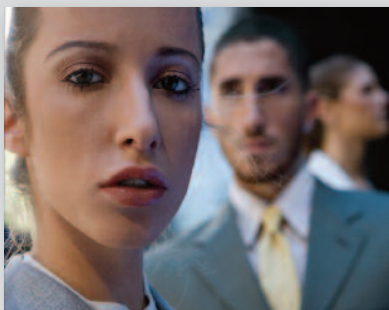
There are five different kinds of white blood cells. The most common type, the neutrophil (also called granulocyte), surrounds and literally devours invading germs.

The four other main types of white blood cells attack and destroy invaders different ways. They are lymphocytes (T-cells, and B-cells), monocytes, basophils and eosinophils.

ng through plasma in a human artery



Fact: One out of every three people will need blood during their lifetime.



Platelets

When your skin is cut, your blood vessels suffer damage. As a result, you not only start to bleed, but foreign substances – such as dirt and germs – can enter your body.

That's when your platelets go into action. At the first sign of damage to your blood vessels, platelets work together to weave a temporary plug or clot to stop the bleeding, prevent foreign material or dirt from entering your cut, and repair the damage done to your body.

Plasma

Plasma is the straw-colored, clear liquid in which your blood cells “swim.” Made up of mostly water, plasma transports needed nutrients, proteins, clotting factors and germ-fighting antibodies, throughout your body via the circulatory systems.

Blood Types

Different people have different types of blood. The four major ABO blood types are “O,” “A,” “B” and “AB.” In addition, each major blood group is divided into Rh negative or positive types.

For a blood donation to work, there has to be a good match between the blood type of the donor and that of the patient. While all patients can receive blood from donors with the same ABO blood type, some blood types can be safely transfused to patients with different blood types. For example, the common Type O can also be given to patients with A, B or AB blood.

A number of other characteristics (blood groups) also exist, which can make the process of finding compatible blood for someone with a rare blood type more complex and challenging.

New York Blood Center has a team of world-renowned “match makers” to find just the right blood for a particular patient. We have the largest inventory of rare blood types in the United States.

Type O is referred

Fact: A rare blood type is found in only one of every 200 people.



Who needs blood donations?

Many, many people! In the United States, someone needs a red blood cell transfusion every three seconds. One in three people will need a blood transfusion during their lifetime.

The need for blood affects us all. In fact, New York Blood Center provides our community with close to 2,000 donations daily to help save the lives of:

- Accident victims
- Patients undergoing major surgery
- People with blood diseases such as sickle cell disease, leukemia, anemia and hemophilia
- Cancer patients
- Burn and trauma patients
- Newborns

Donating blood is safe, easy and confidential.

Before donating blood, you will be asked to provide basic information (such as your name, address and age) and show identification containing a photo or signature. A medical history is taken and a drop of blood is analyzed for hematocrit level. In addition, your pulse, blood pressure and temperature are checked.

Donating blood is surprisingly quick and very safe. The actual procedure is performed by a specially trained technician and takes just ten to twelve minutes on average.

After you give blood, your blood volume (plasma) is completely replaced within 24 hours; red cells need about four to eight weeks for complete replacement. You will be able to donate blood again after eight weeks (or every 56 days).

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Fact: Each time you donate blood, you can be saving as many as three lives



Automated Donations: a way to reach more patients in need.

Automated blood donations provide a quick, simple, safe way to separate your blood into the components most needed by patients with cancer and other life-threatening diseases. Most often, automated donations are done to collect platelets or red blood cells. Automated donations also help ensure that the blood components patients need come from fewer donors.

Fact: Automated donations enable you to “focus” your donation and give up to eight times as many platelets or twice as many red cells than with a whole blood donation.

For more information on automated donations for red blood cells or platelets, visit www.nybloodcenter.org/red and www.nybloodcenter.org/plt

What happens to your blood after you donate?

Potential donors are screened before the donation procedure to ensure they meet certain health eligibility requirements. Following donation, your blood is typed and tested for hepatitis, HIV (the virus that causes AIDS), syphilis and several other transmissible conditions.

After analysis, your blood is separated into components – red cells, plasma, and platelets. Each blood component is labeled to identify the blood type and other special characteristics of the blood.

Since each blood component can be used to treat a different patient, your single blood donation may help save as many as three lives.

Once labeled, blood components are temporarily stored at New York Blood Center and are transported to community hospitals on a daily and emergency basis.

The most important fact of all: every time you donate blood, you're giving people in need the gift of life. Please donate regularly.

Donate blood n

Take Advantage of us.

To recognize the thoughtfulness of frequent blood and platelet donors, New York Blood Center has developed the Donor Advantage Program. You are automatically enrolled and you earn points each time you donate. Your Advantage points can be redeemed for gifts, gift cards or even donated to support selected charitable organizations. To learn more about the Donor Advantage program visit



www.mydonoradvantage.com

**You have it within you to save a life.
Donating **blood** is a way to truly make a difference.**

To donate blood you must be between the ages of 17 and 76 (16 with signed parental permission/consent), be in good health and weigh at least 110 pounds..

You can also help those in need by:

- donating blood often
- sponsoring a blood drive at your job or in your community
- volunteering at a blood drive or at a New York Blood Center location

...people can't live without it.

Thank you
for being a
very special type of person—a blood donor.

Please donate often.

To schedule your next
blood donation appointment,
visit
www.nybloodcenter.org/blood,
call us at
1-800-933-BLOOD (2566)
or scan the **QR Code** below.



 **New York** *Blood Center*