



# My Blood, Your Blood Educational Display

## Donating Blood: The 411

### Quick Facts About Blood Donation:

- Requires 45-60 minutes.
- Process includes registration, screening, mini physical, donation, and refreshments in the canteen.
- You must be at least 17 years old and weigh at least 110 pounds.
- You can make a blood donation every 8 weeks.
- Automated blood donation allows donors to give specific blood components such as platelets. During the donation process, all but the needed blood components are returned to the donor.
- Our bodies typically make all the blood we need, except in the case of illness or injury. In these situations, we rely on donors to help patients live. Conditions requiring blood transfusions may include:
  - Coronary Artery Bypass
  - Bleeding Ulcer
  - Car Accident
  - Organ Transplants
  - Bone Marrow Transplant

[www.cbccs.org](http://www.cbccs.org)  
1-800-388-GIVE

Community Blood Center  
Community Tissue Services

### Your Body's Own Transportation System: The Circulatory System


• Your circulatory system functions like a "highway" for your blood, circulating it from your head to your toes and back again.

• Blood moves through this system carrying oxygen and nutrients to all your body parts.

• Your heart keeps blood pumping through your body.

• Blood moves through three main vessels:

- Arteries carry blood from your heart to all parts of your body.
- Veins carry blood back to the heart.
- Capillaries branch away from arteries and veins to carry blood to all the individual organs and cells inside your body.



Arteries

Veins

Capillaries

Did you know all your blood vessels stretched out would encircle the earth 2 1/2 times?

### Our Blood: A Marvellous Mixture of Components

Blood is perishable, and like milk, it can expire. Everyone's blood is made up of several components:

#### Red Blood Cells (Erythrocytes)

- Carry oxygen to all other cells in the body.
- Contains hemoglobin, a protein that carries oxygen and gives blood its red color.
- Are produced inside bone marrow at a very rapid rate.
- Can be stored for 42 days.

#### How many red blood cells does your body manufacture every hour?

25 billion

#### White Blood Cells (Leukocytes)

- Protect our bodies from bacteria and infection.
- Help form our immune system which fights off germs that might make us ill.
- Have a 24-hour shift job.

#### Platelets

- Control bleeding by forming a temporary plug when a blood vessel breaks.
- Stick with a protein called fibrin and red blood cells to form the scab that stops wounds from bleeding.
- Can be stored for 5 days.

#### Plasma

- Carries blood cells and nutrients throughout the body.
- Distinguished by its pinkish color when separated from cells.
- Can be frozen and stored for 1 year.

#### What are the ingredients of plasma?

90% for protein

### Let's Get Pumped!

How does blood move through your circulatory system? That's the job of your heart!

• The heart is off to the left! It has four chambers of blood in your chest.

• Your heart has the capacity to pump enough blood to fill 1000 tires in a day.

• Your heart creates enough pressure to squirt blood 100 feet.

#### Take Your Pulse

Your heart rate (puls) changes when your body's physical condition or mental condition change. To take your pulse, follow these steps:

1. Locate your pulse with your fingers. Do not use your thumb. Your pulse point will be located on the side of your neck, your wrist, or the top of your foot.
2. Close your hand to the beat, and how many can you feel in 60 seconds. There are about 72 beats per minute.
3. Multiply the count by 60 to find the number of beats per minute.

How fast are you breathing? Counting the number of breaths you take while resting and your heart rate while working will give you a better understanding of your body's needs.

### Test Your Blood Donation IQ

What's the commonest cause of blood loss?

• Hemorrhage

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• Hemorrhage

How many times does the average adult's blood volume change?

• 100 times

How often does a person donate blood?

• Every 8 weeks

How much blood is in the average adult's body?

• 5 liters

How many Americans receive blood transfusions every year?

• 10 million

### Transfusions Help Treat Patients with Diseases of the Blood

For people with blood diseases, transfusions are vital. They are an essential element of the blood and that transfusions.

#### Leukemia


- A cancer of the blood and bone marrow.
- Symptoms include easy bruising and bleeding, fatigue, recurring infections, weakness, and joint swelling or pain.
- Leukemia patients, including many with leukemia, are the most frequent recipients of platelet transfusions.

#### Thalassemia

- An inherited disease of the blood-carrying system.
- Symptoms include easy bruising and bleeding, fatigue, recurring infections, weakness, and joint swelling or pain.
- Transfusions through transfusions and giving patients blood of a matching blood type.

#### Sickle Cell Disease

- An inherited disease that changes the shape of red blood cells, making them less able to transport and give blood.
- Symptoms include easy bruising and bleeding, fatigue, recurring infections, weakness, and joint swelling or pain.
- Can be treated with transfusions.



Donors visit our collection sites in Dayton, Middletown, Springfield, West Chester, and Richmond, Indiana to donate blood.

We reach out to elementary and secondary schools through our science education program *My Blood, Your Blood* that teaches students about blood biology, circulation, and donation.

*My Blood, Your Blood* is a program of America's Blood Centers. Funding provided by the Foundation for America's Blood Centers.


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## Your Community Blood Center...

### We Get Out & Circulate!

- We supply the daily blood needs (325 pints every day) for patients in 25 hospitals in 15 counties.
- Community volunteers are the sole source of our blood supply.
- Each day 5-6 blood mobiles visit community sites such as schools, churches, and businesses.



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