Blood 101: What blood is, and why it matters

Every two seconds, someone needs blood. And every patient is different. While someone being treated for leukemia may need platelets, burn victims frequently need plasma, and red blood cells can mean the difference between life and death for a premature baby.

About blood components

Produced in the bone marrow, blood is typically collected as "whole blood" and then separated into its unique components: platelets, red cells, and plasma; each can deliver a lifesaving benefit to someone in need.

Platelets

Red Cells

blood volume

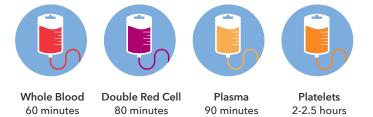
45% of

Plasma

55% of

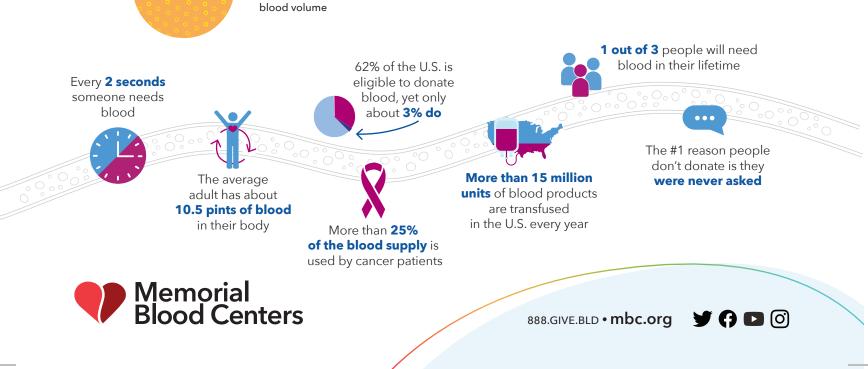
<1% of blood volume

These components can also be made as separate donations. Platelets, red cell, and plasma-only donations are made using a specialized process, much like a whole blood donation–it just takes a little longer. This means you can give more of the type of component that your blood type is most used for.



The need is constant

There is no substitute for blood. Blood components cannot be synthetically made and can only come from volunteer donors. It's the blood on the shelves today that saves lives– which is why donors are needed to give regularly so that there is enough blood when a disaster or crisis occurs.



About blood types

Type O- is the universal red cell donor! Type O-

Type AB+/- is the universal **plasma** donor

Often abbreviated ABO, blood types are inherited and fall into four groups or types: O, A, B, AB. Each blood type also is identified as either Rh positive or negative (the Rh factor being an inherited blood group on red blood cells). Approximately 82% of the U.S. population is Rh-positive (i.e., O+, A+, B+, AB+). Those who do not have the Rh factor are Rh-negative (O-, A-, B-, AB-) and are less common. Donors and recipients must be safely matched by blood types.

Right type for your blood type						
lf you are	% of U.S.'	You can give to ²	You can receive from²	Donation type most needed		
0+	39%	O+, A+, B+, AB+	O+/-	Double red cells, Platelets Double red cells		
0-	9%	All Blood Types	O-			
A+	30%	A+, AB+	O+/-, A+/-	Platelets, Plasma		
A-	6%	A+/-, AB+/-	O-, A-	Double red cells, Platelets Platelets, Plasma		
B+	9%	B+, AB+	O+/-, B+/-			
B-	2%	B+/-, AB+/-	O-, B-	Double red cells, Platelets		
AB+	4%	AB+	All Blood Types	Plasma, Platelets		
AB-	1%	AB+/-	O-, A-, B-, AB-	Plasma, Platelets		

¹ Percentages based on U.S. population. ² Donation for red cell transfusion.

	Lifesaving Blood Components								
	What is it?	What does it do?	Whose lives are saved?	How long do they last?	How often can I donate?	When does my body replenish what I donated?			
Platelets	Small colorless cell fragments in blood	Control bleeding	Leukemia and cancer patients, people undergoing cardiac surgery, burn victims, organ and bone marrow transplant recipients, and individuals with bleeding disorders	Donated platelets have a shelf-life of only 7 days	24 times per year	Within a few hours of donating			
Red Cells	Disc-shaped cells that give blood its red color	Carry oxygen throughout the body	Premature infants, trauma victims, surgical patients, people battling cancer, sickle cell, kidney disease, and anemia	Donated red blood cells last 42 days	Whole blood, every 56 days Double red blood cells, every 112 days	2-4 weeks			
Plasma	A pale yellow mixture of water, proteins, and salts	Promotes clotting	Burn victims, cardiac surgery patients, liver transplant recipients, and patients suffering from shock or bleeding and immune disorders. Plasma not needed for transfusion may be made into other lifesaving products	Donated plasma can be frozen and stored for up to 1 year	12 times per year	Within a couple of days			

