# WHAT BLOOD IS— AND WHY IT MATTERS

### Blood 101

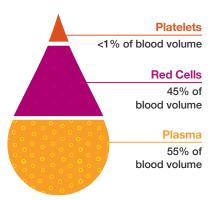
Every two seconds, someone needs blood. And every patient is different. While someone being treated for leukemia may need platelets, burn victims frequently need plasma, and red blood cells can mean the difference between life and death for a premature baby.

#### About blood components

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

#### **About blood types**

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 85% 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 quite rare.



#### Whose type can you match?

Donors with type O- blood are universal red cell donors whose donations can be given to people of all blood types. Donors with types AB- and AB+ blood are universal plasma donors, while patients with type AB+ are universal red cell recipients because they can receive red cells from all types. All other donors and recipients must be safely matched.

If you are	% of U.S. <sup>1</sup>	You can give to <sup>2</sup>	You can receive from <sup>2</sup>	Donation type most needed
0+	38%	O+, A+, B+, AB+	O+/-	Double red cells
0-	7%	All Blood Types	O-	Double red cells
A+	34%	A+, AB+	O+/-, A+/-	Platelets, Plasma
A-	6%	A+/-, AB+/-	O-, A-	Double red cells, Platelets
B+	9%	B+, AB+	O+/-, B+/-	Platelets, Plasma
B-	2%	B+/-, AB+/-	O-, B-	Double red cells, Platelets
AB+	3%	AB+	All Blood Types	Platelets, Plasma
AB-	1%	AB+/-	O-, A-, B-, AB-	Platelets, Plasma

<sup>&</sup>lt;sup>1</sup> Percentages based on U.S. population. <sup>2</sup> Donation for red cell transfusion.





	Life-saving 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 5 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, 3-4 times per year Double red blood cells, 2 times per year	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 life-saving products.	Donated plasma can be frozen and stored for up to 1 year	12 times per year	Within a couple of days		

### 4et the facts



**14 million units** of red cells are transfused every year in the U.S.



1 out of 3 people will need blood in their lifetime



38% of us are eligible to donate blood, yet only about **7% of us do** 

## Sully & Barrett

Best friends with familiar experiences. Both needed blood to sustain them through heart surgery when just an infant.



