

Reasons to give

all about blood groups



American Red Cross

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What are blood groups?

All people belong to one of four inherited **blood groups: A, B, AB and O**. The letters A and B refer to the kind of antigens found on a person's red blood cells. An antigen is a protein or carbohydrate on the cell that triggers an immune response, such as the formation of antibodies. You inherit your blood type from your biological parents.

What are the four major groups in the ABO system?

- **Group A**--Blood has A antigen on red cells, and anti-B antibody on the plasma
- **Group B**--Blood has B antigen on red cells, and anti-A antibody in the plasma
- **Group AB**--Blood has both A and B antigens on red cells, but neither anti-A antibody nor anti-B antibody in the plasma. Since they lack anti-A and anti-B, people with AB blood are called **universal donors for plasma**.
- **Group O**--Blood has neither A nor B antigens on red cells, but anti-A and anti-B antibodies are in the plasma. Since their red cells lack A and B antigens, people with type O are called **universal donors for red blood cells**.

You can receive . . .

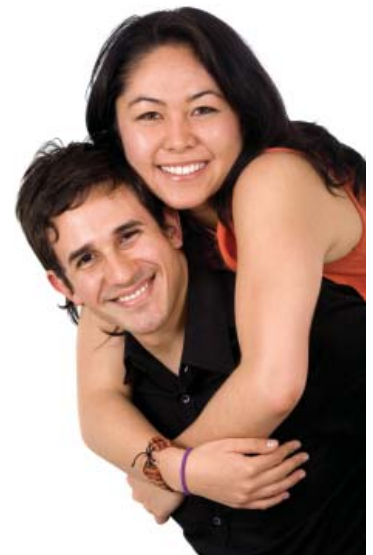
	O-	O+	B-	B+	A-	A+	AB-	AB+
AB+	•	•	•	•	•	•	•	•
AB-	•		•		•		•	
A+	•	•			•	•		
A-	•				•			
B+	•	•	•	•				
B-	•		•					
O+	•	•						
O-	•							

if your blood type is . . .

	Average	White	Black	Hispanic	Asian
O+	40%	37	47	53	39
A+	32%	33	24	29	27
B+	11%	9	18	9	25
O-	7%	8	4	4	1
A-	5%	7	2	4	0.5
AB+	3%	3	4	2	7
B-	1.5%	2	1	2	0.4
AB-	0.5%	1	0.3	0.2	0.1

What is Rh?

Most people have an **inherited antigen** on their red cells known as RH, or D antigen. When the D antigen is present, a person's blood is **Rh positive**. When the D antigen is missing, the blood type is **Rh negative**. In general, Rh negative blood is given to Rh negative patients, and Rh positive or Rh negative may be given to Rh positive patients.



Do blood groups differ between ethnic groups?

Yes. About 60 percent of the **Hispanic** population is group O. Only about 45 percent of the population of other ethnic groups is type O. Many **African-Americans** have group O or B blood. Nearly 20 percent of all African-Americans have group B blood, compared to 11 percent of **Caucasians**.

The need is constant. The gratification is instant. Give blood.™