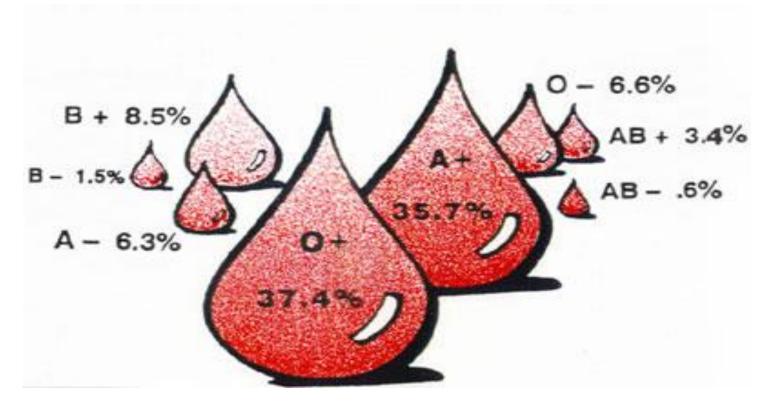
# **Blood types**

 A blood type (also called a blood group) is a classification of blood based on the presence or absence of inherited antigenic substances on the surface of red blood cells

# **Blood types**

There are four major blood types: A, B, AB,

and O



# **Antigens**

 There are two antigens, A and B. If you have the A antigen on the RBC, then you have type A blood.

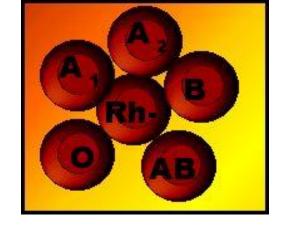
 When B antigen is present, you have type B blood.

# **Antigens**

 When both A and B antigens are present, you have type AB blood.

When neither are present, you have type
 O blood.

### Rh blood group



 In addition to the ABO blood group system, there is an Rh blood group system

The D antigen is the most common Rh antigen.
 If the D antigen is present, then that blood is Rh+. If the D antigen is missing, then the blood is Rh-.

# **Blood compatibility**

Not all blood types are compatible

There are universal donors and universal recipients

### In terms of RBC

- O- (universal donor blood)
- AB + (universal recipient)

#### In terms of plasma

Plasma extracted from type AB blood can be transfused to individuals of any blood group, but type O plasma can be used only by type O recipients

# Blood compatibility chart

Red blood cell compatibility table [31][32]

Recipient <sup>[1]</sup>	Donor <sup>[1]</sup>							
•	0-	0+	Α-	Α+	B-	B+	AB-	AB+
O-	1							
0+	1	1						
Α-	1		1					
<b>A</b> +	1	1	1	1				
В-	1				1			
B+	1	1			1	1		
AB-	1		1		1		1	
AB+	1	1	1	1	1	1	1	1