BLOOD GROUPS

Historical facts

- Transfusion tried to do in ancient Greece.
- At the beginning of the seventeenth century in Europe, they tried to transfuse blood to bloodless dogs of dead dogs or people.

Historical facts

Not all attempts were successful, often people and dogs died.

First blood transfusion

In 1667 in Paris for the first time a successful blood transfusion was carried out to a man from a lamb. Subsequent transfusions ended with the death of both

Blood transfusion from human to human

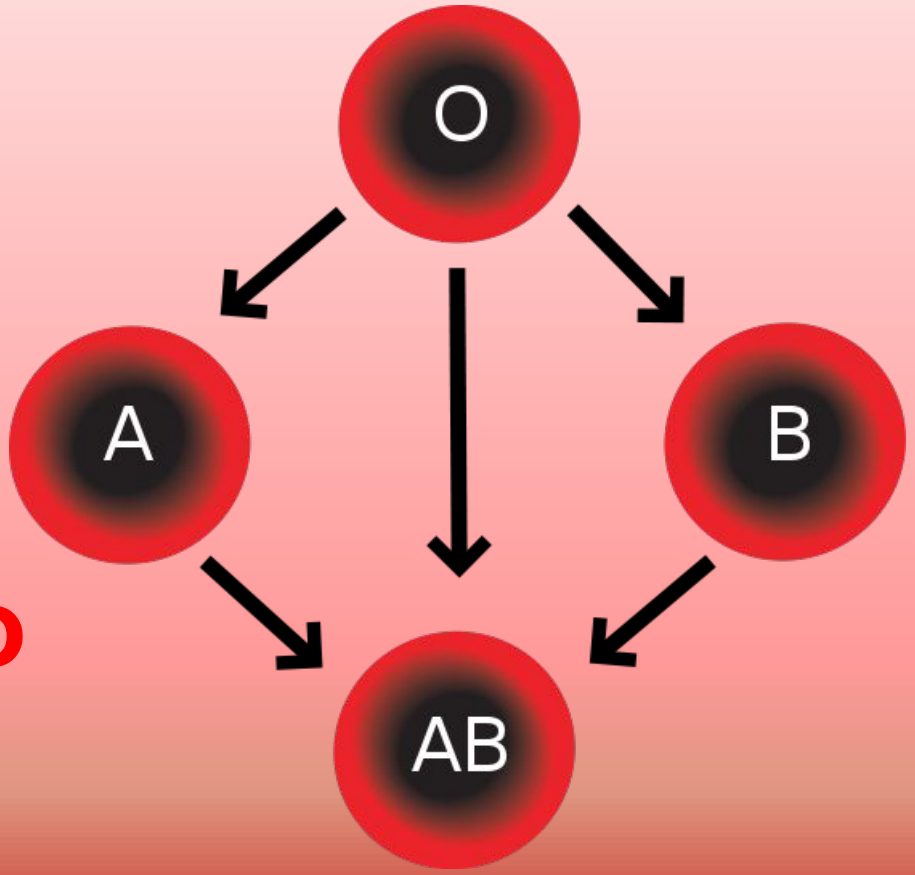
At the end of the 19th century, blood transfusions were first given to a pregnant woman from her husband.

The experiment was successful.

Human blood groups

In 1930, Austrian immunologist Karl Landsheyner, received the Nobel Prize, for the discovery

GROUPS OF BLOOD



Human blood groups

Erythrocytes (red blood cells) - post-cell blood structures.
Red blood cells are highly specialized cells whose function is to transport oxygen from the lungs to the tissues of the body.
In human erythrocytes, the nucleus is absent.

Human blood groups

On the surface of the lipoprotein membrane of the erythrocyte are specific antigens of a glycoprotein nature - agglutinogens.

Factors of blood group systems. Currently, more than 15 blood group systems have been studied:

AB0 system

Rh factor

Duffy antigen

antigen kell,

Kidd antigen

They cause agglutination of erythrocytes under the action of specific agglutinins.

Human blood groups

Blood groups

Blood groups	erythrocytes	plasma
	agglutinogens	agglutinins
I (0)	0	α , β
II (A)	A	β
III (B)	B	α
IV (AB)	AB	0

Human blood groups

 A antigen

 B antigen

0 (I) blood group

Human blood groups

A antigen

B antigen

A (II) blood group

Human blood groups

A antigen

B antigen

B (III) blood group

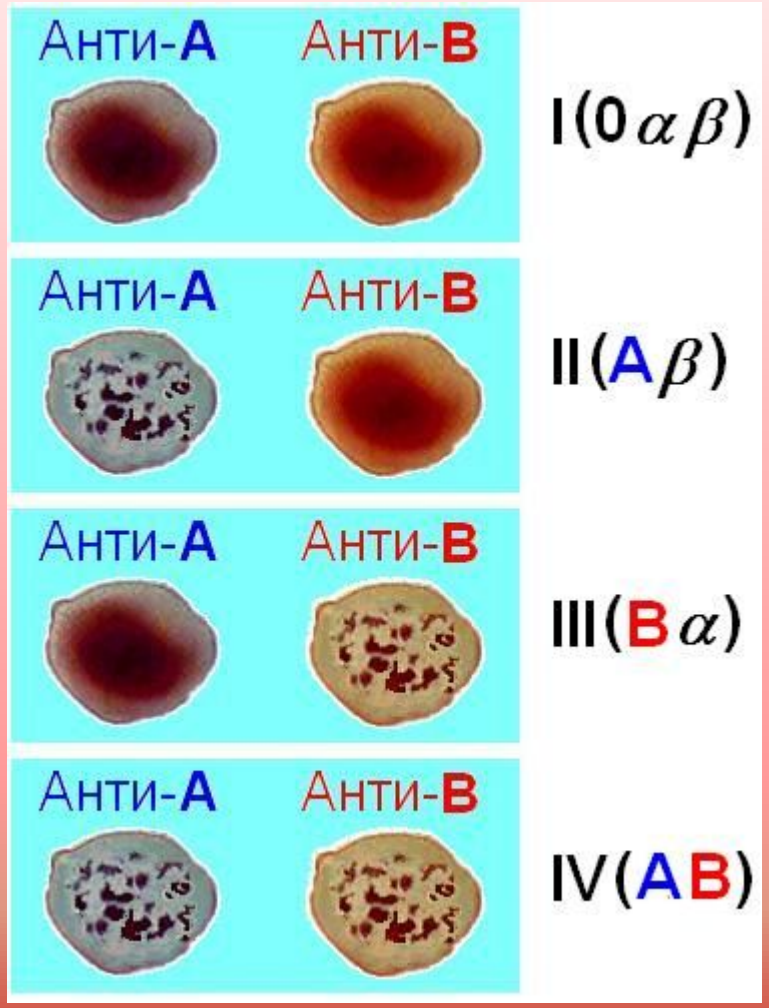
Human blood groups

A antigen

B antigen

AB (IV) blood group

Human blood groups



Rh-factor

This is one of the blood proteins, it opened in 1940, Karl Landsteiner.

Named in honor of macaques - Rhesus, which was first discovered this type of protein.

If a person with Rh- is transfused with Rh + blood,

his antibodies will start to get rid of this blood, as if from a foreign body.

In pregnant women, this leads to the rejection of the fetus

Blood transfusion

Donor - person who donates blood for transfusion.

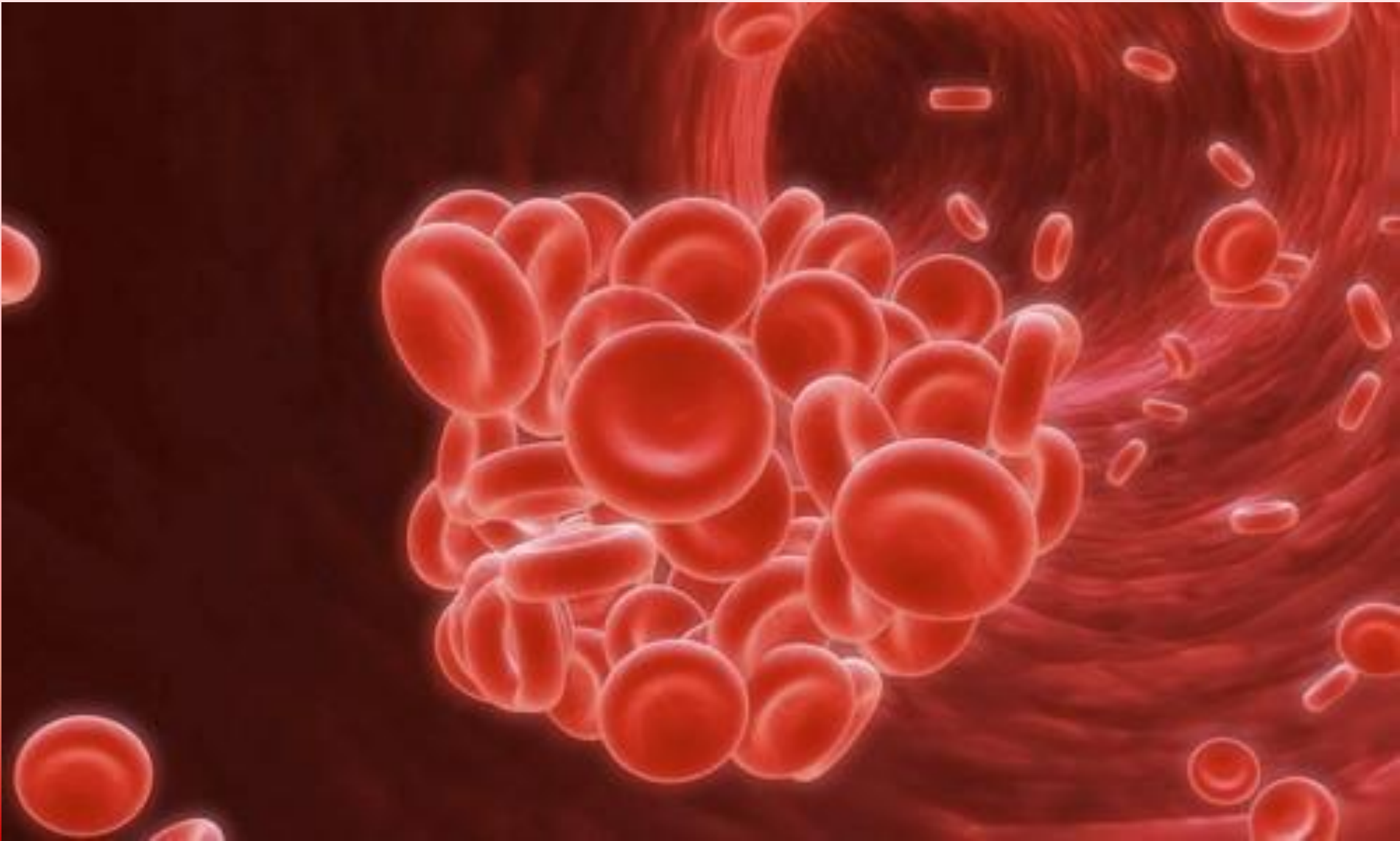
Universal donors
people with blood type 1

Blood transfusion

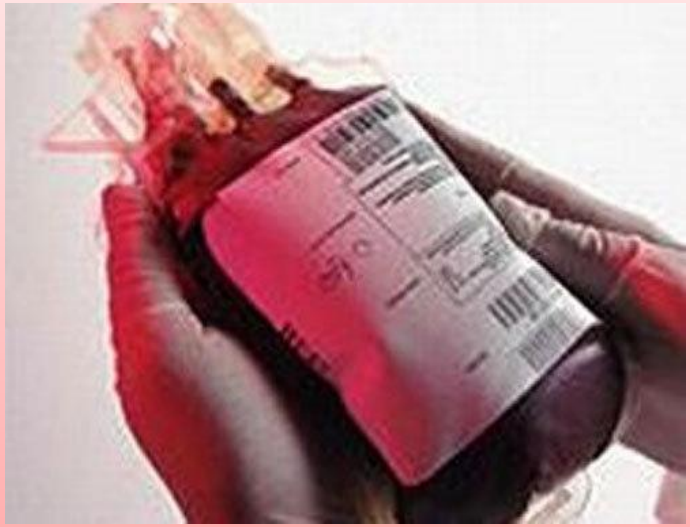
Recipient
-person who has been transferred the blood of another person.

Universal recipients are people for whom any blood type is suitable for transfusion.

Blood transfusion



Where is the donor blood stored?



- Donated blood is stored in sealed (airless), sealed vessels.
- In special stores at a certain temperature.
- All donated blood MUST be checked for the presence of infections in it.