Blood group determination test

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Practically determination of Blood group

Here I will explain to you: How to determine blood group, which substances are needful for usage, and what is the manner of this test.

First question: Why do we determine blood group?

Answer: When we want to transfer the blood to another patient we must determine the blood group to see if ours blood group and (Rh) positivity or negativity is same with patient blood group, If we didn't determine the blood group and we transferred the blood to another patient if the group was different than patient blood group, in this accident will definitely cause to kill the patient.

And also if you want to transfer another person blood to yourself, its also needful first you and the person you want to transform the blood from, both must determine the blood group.

Second question: what are blood groups?

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Available antigens on the surface of Red blood cells, indicate the blood groups of Humans. Which identifies with the letters (A, AB, B, O).

Third question: What do we call the person who transfers blood to a patient and who takes blood from a person?

The person who transfers his blood to another is Donar, and the person who receives blood is Recipient.

Fourth question: What is RH?

RH is also an antigen on the surface of red blood cells which is found in a monkey (Rhesus).

Needful substances for blood group determination

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1: Toothpicks : Are used for mixing of antisera with blood on the slide.

2: Antisera: Is used to determine the blood group by dropping and mixing It with blood.

3: Slide: Is used to put blood and antisera on it, for blood determination test.

4: Gloves: Use to cover hands for saving yourself from bacterial infection.

5: Lancets: Use to stick the patient finger for receiving blood.

6: Cotton : Use to stop bleeding and to clean the part of the finger where the blood comes out from.

7: Iodine or Dettol: Use to clean the finger before sticking through lancet, not to cause bacteria infection.

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Toothpicks

Gloves

Cotton

A,B,D Antisera

Slides

Iodine

Lancets

Prepared by Jamal masom

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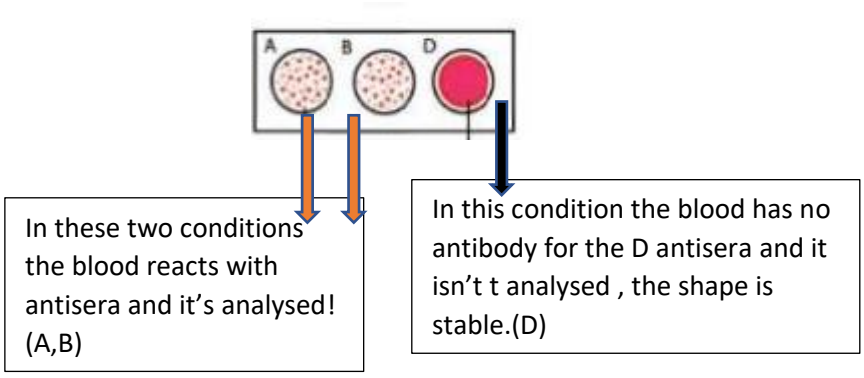
Note: When we put drop one of the antisera on the blood, if the blood react with antisera it's mean this blood has antibody for this antisera in this condition the blood shape must be granulated or analysis, but if the blood doesn't react with antisera, it's mean the blood doesn't have antibody for this antisera in this condition the blood shape must be stable like before.

For example focus on the picture below.



- The D antisera shows the Rh positivity and negativity.

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How to determine the blood group, just follow the below steps!

1: Wear the gloves to cover your hands.

2: write on the white sheet A,B,D separately according to size of slide.

3: Put the slide on the sheet below the A,B,D written letters.

4: Now apart little cotton and soak it with iodine then rub the cotton with a patient finger in order to avoid bacterial infection.

5: Stick the patient finger through lancet but carefully, not to hurt the patient too much.

6: Now pick up the selected slide and touch the slide with finger blood in three Separately points. And then put the slide on the sheet below the letters A,B,D and try to match the blood three points In front to the same letters (A,B,D) on the sheet.

8: Now put one drop of A antisera on the blood point which is below the letter A. Then put one drop

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of B antisera on the B blood point and also put one drop of D antisera on the D blood point carefully, not mix together three blood points on the slide.

9: After this you have to use toothpicks to mix the antisera with blood. Remember to use one toothpick for one blood point don't use one toothpick for three blood points to mix.

10: When you mixed the antisera correctly with toothpick, then you have to pick up the slide and rotate it to solutes the antisera in the blood. Remember: not to rotate the slide quickly which cause to mix the three points of blood on the slide.

11: After few times rotation of the slide just slowly put the slide down carefully. And just wait for few seconds like (30_40s).

12: After few seconds, now you have to observe the three points of blood on the slide.

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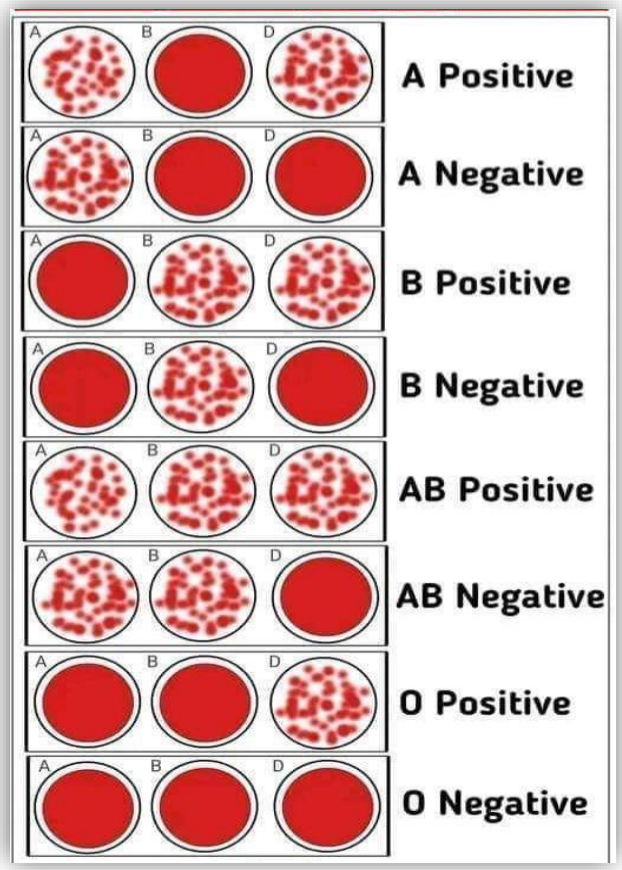
Results

After above process you will see your slide like one of these:

Slides

Three blood points on each slide.



Ab(Rh +)

Its shows your RBC (red blood cell) has AB and RH antigens. In this state your blood group is (AB+)

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AB(Rh -)

It shows your RBC has AB antigen but doesn't have RH antigen. In this state your blood group is (AB-)

A(Rh +)

It shows your RBC has A antigen and also RH antigen too.

In this state your blood group is (A+)

A (Rh -)

It shows your RBC has A antigen but not RH antigen.

In this state your blood group is (A-)

B(Rh+)

It shows your RBC has B antigen and also RH antigen too.

In this state your blood group is (B+)

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B(Rh -)

It shows your RBC has B antigen but not RH antigen.

In this state your blood group is (B-)

O(Rh+)

It shows your RBC has only RH antigen.

In this state your blood group is (O+)

O(Rh-)

It shows your RBC hasn’t any antigen on the surface of your RBC.

In this state your blood group is (O-)

Note:

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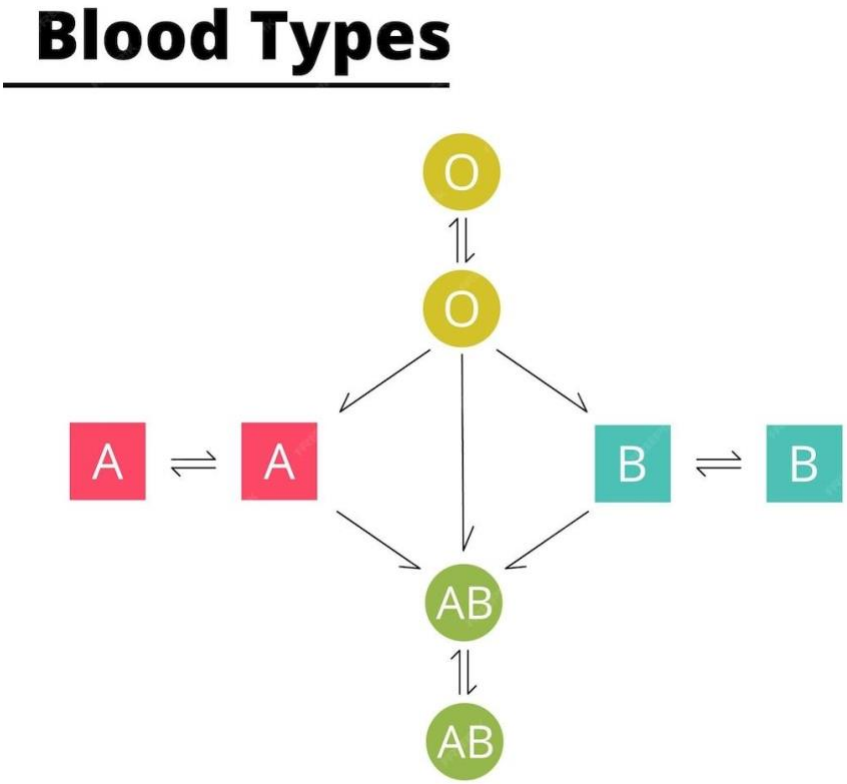
If you didn’t face to any result or your result was wrong, it means you made a mistake during the blood group determination process.

Or the Antisera you used may expired!

After your blood group determination results, you should know about this too!



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