Blood

Blood transfusion

This occurs when blood is transferred from one person to another. The donor is the one who donates the blood, and the recipient is the one who receives the blood.

This is used to:

1. restore blood or plasma after hemorrhage.
2. Increase red blood cells in anemia patients to increase oxygen.
3. When a lot of blood has been lost

In order for transfusions to take place patience must be examined in order to check for any virus and to determine their blood type.

Blood Groups:

The four main blood groups are A, B, AB and O. They can be determined by antigens. These are present on red blood cell membranes. There are two types of Antigens(Antigen A and B)

1. Group A had A antigens
2. Group B has B antigens
3. Group AB has A and B antigens
4. Group O has no antigens

Blood Transfusion Chart

Donor \ Recipient	Group A	Group B	Group AB	Group O
Group A	−	+	−	+
Group B	+	−	−	+
Group AB	+	+	−	+
Group O	−	−	−	−

+ (agglutination)
− (no agglutination)

Blood transfusion

In the block on the top left we talked about blood transfusions and how blood types must be checked before a transfusion takes place. Some blood groups are compatible while others are not. If two blood groups that are incompatible mix clotting may occur. This clotting is called agglutination. The antigens must be the same as the anti-bodies so that they may be compatible. Group A has B-anti bodies. Group B has A-anti bodies. Group AB has A and B Antibodies'. O has no anti-bodies as it has no anti-bodies. Antibodies of one group react with the corresponding antigens of another.

Group O is a universal Donor as it can donate blood regardless of blood group.
Group B is a Universal recipient as it can receive blood from any blood group.