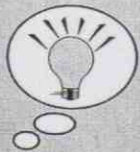




DID YOU KNOW?

The average life span of a red blood cell is about 120 days.



DID YOU KNOW?

Donor blood contains only packed red blood cells. There is no plasma in donor blood, thus there are no antibodies present.

Process of Agglutination

There is a simple test to determine blood type, performed with antisera containing high levels of anti-A, anti-B and anti-Rh agglutinins. Several drops of each kind of antiserum are added to separate samples of blood. If agglutination (clumping) occurs only in the suspension to which the anti-A serum was added, the blood type is A. If agglutination occurs only in the anti-B mixture, the blood type is B. Agglutination in both samples indicates that the blood type is AB. The absence of agglutination in any sample indicates that the blood type is O. Any sample that agglutinates in the presence of anti-Rh serum is considered Rh⁺.

Figure 2

Agglutination Reaction of ABO Blood-Typing Sera

Reaction		Blood Type
Anti-A Serum	Anti-B Serum	
Agglutination	No Agglutination	A
No Agglutination	Agglutination	B
Agglutination	Agglutination	AB
No Agglutination	No Agglutination	O

Importance of Blood Typing

As noted in the table above, people can receive transfusions of only certain blood types, depending on the type of blood they have. If incompatible blood types are mixed, erythrocyte destruction, agglutination and other problems can occur. For instance, if a person with Type B blood is transfused with blood type A, the recipient's anti-A antibodies will attack the incoming type A erythrocytes. The type A erythrocytes will be agglutinated, and hemoglobin will be released into the plasma. This problem may not be serious, unless a large amount of blood is transfused.

Blood type, an inherited characteristic, may also be used in medico-legal situations involving identification of disputed paternity. A comparison of the blood groups of mother, child, and alleged father may exclude the man as a possible parent. Blood typing does not prove that an individual is the father of a child; it merely indicates whether or not he is a possible parent. For example, a child with a blood type of AB, whose mother is type A, could not have as a father a man whose blood type is O.