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Blood is the homogeneous fluid which continues circulating in the body. It is composed of a large variety of dissolved and suspended inorganic and organic substances as well as 3 kinds cells.

In man, the normal adult contains 5-6 litres blood. The osmotic pressure of human blood averages about 5900 mm Hg or 7.8 atmospheres. The osmotic pressure is mainly due to the various salts, waste products, sugar and other substances dissolved in plasma.

The viscosity is about five times greater than that of water.

The sp. gravity of blood is in the range of 1.035-1.075.

When freshly drawn blood, to which an anticoagulating agent is added and placed stationary for some time, the erythrocytes start sedimenting. The rate at which these cells sediment is known as erythrocyte sedimentation rate (E.S.R.)

The ESR is expressed in mm/hr and normally it varies from 4-10 mm/hr. During transfusion it is essential to prevent coagulation by some substances. There are certain substances or processes which can prevent the blood coagulation. These are:

date

(a) Heparin - Best and powerful anticoagulant.

(b) Antithromboplastin

(c) Antithrombic activity

(d) Oxalates and citrates

(e) Defibrination