

# Circulatory System

Define: The circulatory system is the system which is responsible for the circulation of blood in the body. This system is also responsible for the transportation of gases through the circulation of blood. The circulatory system transports minerals through the circulation of blood in the body. It consists of different parts which are involved in the circulation process.

## Components of Circulatory System:

Different components of circulatory system are as follow:

- i- Blood
- ii- Blood vessels
- iii- Human Heart

### (i) Blood:

Blood is a complex fluid which flows in the body. Blood consists of two main things; Plasma and blood cells. The plasma is 55% and blood cells are 45%.

Plasma consists of 90% of water, 8% of minerals and 2% of gases. There are three types of Blood cells. The types of blood cells are: Red Blood cells, white Blood cells and Platelets.

(a) Red Blood cells (RBCs):

Red blood cells are also known as Erythrocytes. The shape of RBCs is Biconcave. Their life time is 120 days means 4 months.

They are red in colour.

(b) White Blood cells (WBCs):

White Blood cells also known as Leucocytes. They are round in shape and are colourless. The life time of WBCs is

5 to 7 days. They work as defender against diseases.

(c) Platelets:

Platelets are also known as thrombocytes. The life time of platelets is months to years.

Their shape is oval. They involve in blood clotting.

### (iii) Blood vessels :

Another important part of circulatory system is blood vessels which give passage for circulation of gasses, blood and minerals in the body. There are three types of blood vessels. These are as follow :

#### (a) Artries :

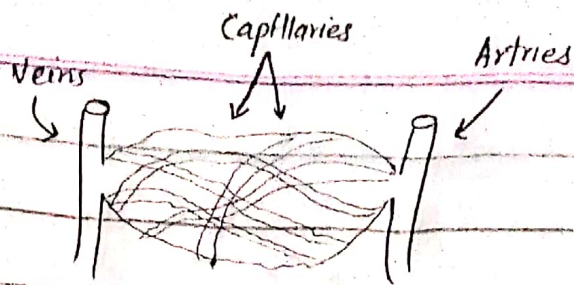
Artries are type of blood vessels which carry oxygenated blood. Only pulmonary artry carries deoxygenated blood.

#### (b) Veins :

Veins are type of blood vessels which carry deoxygenated blood from body to heart. Only pulmonary vein carries oxygenated blood.

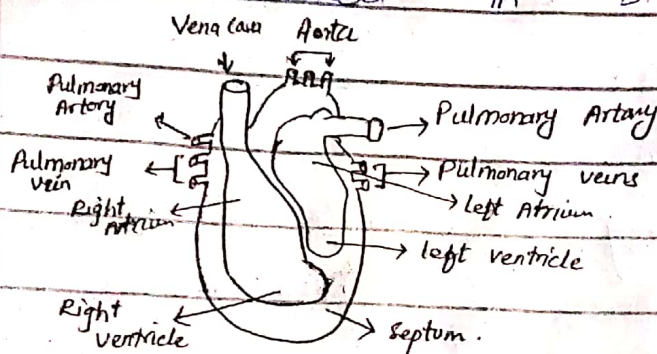
#### (c) Capillaries :

Capillaries gives passage between arteries and veins. Capillaries are small in size. Blood moves from arteries to veins through capillaries.



### (iii) Human Heart:

The main component of circulatory system is human heart. It consists of different parts which are involved in blood oxygenation.



The de-oxygenated blood from the body is carried through Vena Cava. Blood enters into right atrium and contraction is done here. Then blood moves toward right ventricle and decontraction is done here. After relaxation, blood moves toward left side. The de-oxygenated blood carries by pulmonary artery to lungs where the blood is become

oxygenated. Then oxygenated blood carries by pulmonary veins and moves toward the body.

### Conclusion:

The whole process of circulation of blood is known as circulatory system. In this process, the deoxygenated blood becomes oxygenated and circulated in the body. All the components work their own task properly and our body work.

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