

## BODY FLUIDS AND CIRCULATION

### DISORDERS OF CIRCULATORY SYSTEM

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##### (i) High blood pressure (Hypertension)

Hypertension is the term for blood pressure that is higher than normal. A blood pressure of 120/80 is considered normal. In this measurement, 120 mm Hg (millimetres of mercury) is the systolic, or pumping pressure and 80 mm Hg is the diastolic, or resting pressure. If repeated checks of blood pressure of an individual result in pressure values around 140/90 or higher, it shows hypertension which leads to heart diseases and also affects vital organs like brain and kidney.

**Pulse pressure:** Difference between systolic and diastolic pressure. i.e.,  $120 - 80 = 40$  mm Hg

Blood pressure is measured by an instrument called sphygmomanometer.

##### (ii) Angina pectoris

A symptom of acute chest pain appears when not enough oxygen is reaching the heart muscle. The term angina pectoris means chest pain. It can occur both in men and women of any age but is more common among the middle aged and elderly people. It occurs due to conditions that affect the blood flow.

##### (iii) Heart failure

It is the state of heart when it does not pump blood effectively enough to meet the needs of the body. It is sometimes called congestive heart failure because congestion of the lungs is one of the main symptoms of this disease.

##### (iv) Heart attack/Myocardial infarction

Heart attack occurs when the heart muscles are suddenly damaged by inadequate blood supply.

##### (v) Cardiac arrest

Cardiac arrest means complete stoppage of the heart beat i.e., when the heart stops beating.

##### (vi) Coronary Artery Disease (CAD)

Coronary Artery Disease, often referred to as atherosclerosis, affects the vessels that supply blood to the heart muscle. It is caused due to the depositions of calcium, fat, cholesterol and fibrous tissues in the arteries supplying the heart musculature. These depositions make the lumen of arteries narrower.