

## \* Blood Pressure \*

↓  
• The pressure exerted by flowing blood on walls of arteries is called "Blood pressure".

• It is measured by - Sphygmomanometer.

\* Normal B.P = 120/80 mm Hg.

\*  $\frac{120 \text{ mm Hg}}{80 \text{ mm Hg}}$  → systolic process  
→ diastolic process.

\* Instrument used for measure heart Beat -  
"Stethoscope".

\* Systolic → contraction of heart → Blood comes out → in 0.3 sec.

\* Diastolic → relaxation of heart → Blood comes in → in 0.5 sec.

→ Total Process = 1 Diastole + 1 systole = 1 heartbeat.  
= 0.5 sec + 0.3 sec.

⇒ 0.8 sec. = time of one heartbeat.

### \* Hypertension.

• when pressure is more than 120 mm Hg.

• also called "high B.P."

### \* Hypotension.

• when pressure is less than 80 mm Hg.

• also called "low B.P."

↑ Both type of tensions can lead to "heart-Attack". ↓

### \* Stroke Volume.

• The volume of Blood comes out to make one heart Beat, is called stroke volume.

• In 1 min., our heart pumps about 5 litres Blood.

### NOTE -

1. Heart beats are controlled by - Medulla Oblongata.

2. Hormones that controls heartbeat -

a. Thyroxine. (Thyroid gland)

b. Adrenaline (Adrenal gland).

ECG - Electro Cardio gram.

3. Rates of Heart Beat -

a. In child - 150/min.

b. In Adult - 72/min.

c. In gym - 90-98/min.

d. In embryonic stage - 200/min.

## \* Diseases of human heart \*

### 1. Fossa Ovalis -

- also called Blue Baby Syndrome.
- there is a hole in septum b/w Right auricle and left auricle.
- due to which  $O_2$  amount decreases.
- corrected by heart surgery by putting "Platinum membranes" on the septum.

### 2. Cardiac Arrest -

- Blockage of Valves.
- a type of "heart attack".
- $O_2$  amount decreases.

### 3. CAD -

- Coronary Arteries Disease.
- Blockage of coronary Artery.
- Blood doesn't transfer to heart.