

HUMAN ANATOMY AND PHYSIOLOGY-I, BP-101(T)

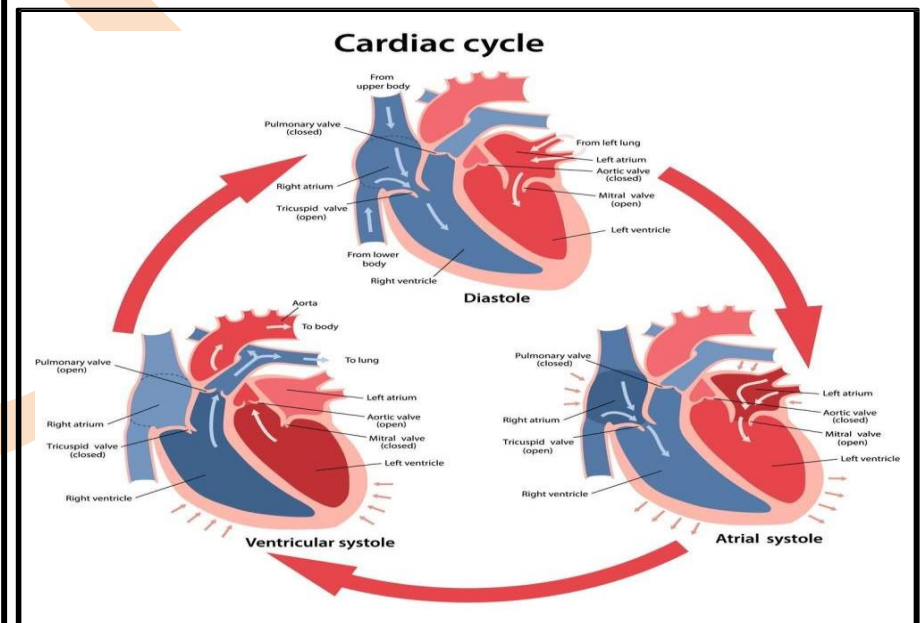
UNIT-V (Cardiovascular system)

CLASS:6

TOPIC - CARDIAC CYCLE, REGULATION OF BLOOD PRESSURECardiac cycle:

The period of time that begins with contraction of the atria and ends with ventricular relaxation is known as the cardiac cycle. cardiac cycle occurs in two phases. They are:

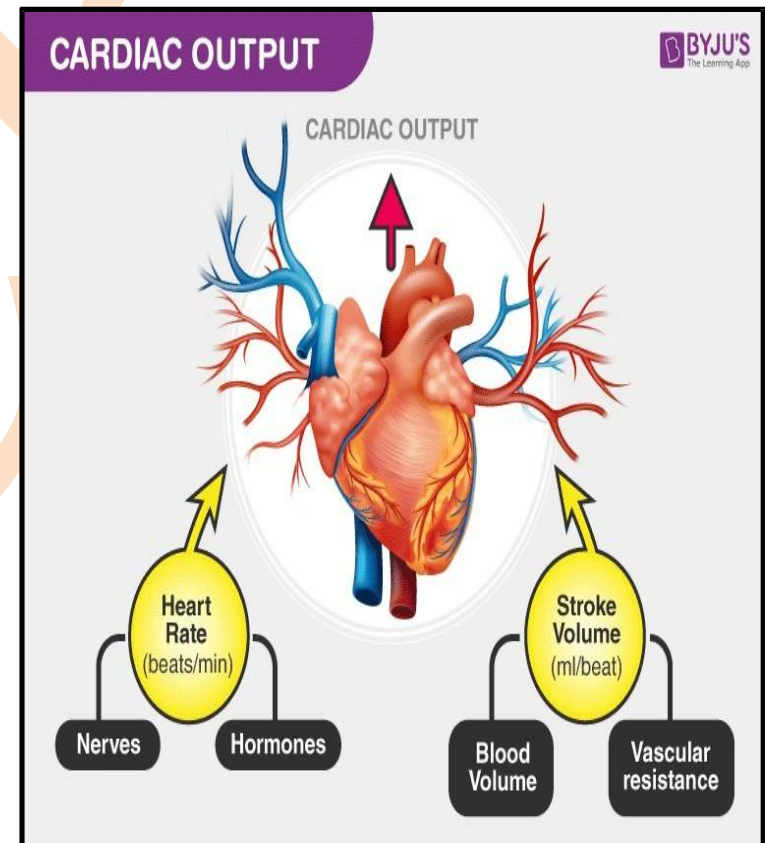
- **systole** - a period of contraction
- **Diastole**- a period of relaxation



Cardiac output

- It is defined as the quantity of blood pumped by the heart in one minute.
- **Cardiac output (CO)** is a measurement of the amount of blood pumped by each ventricle (stroke volume) in one minute. This is calculated by multiplying the stroke volume (SV) by the beats per minute of the heart rate (HR). So that:

$$CO = SV \times HR.$$

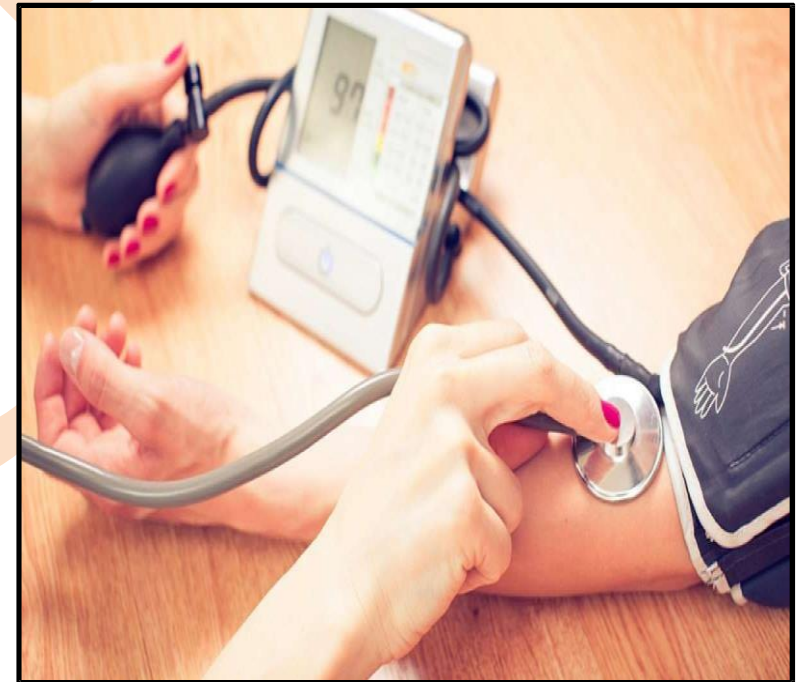


Blood pressure

The **blood pressure** is the pressure of the blood within the arteries. It is produced primarily by the contraction of the heart muscle.

It has two phases:

- **Systolic blood pressure:** It is the maximum blood pressure. (range 100 to 120 mm Hg)
- **Diastolic blood pressure:** It is the minimum pressure. (range 60 to 80 mm Hg)
- **Pulse pressure** is the difference between systolic and diastolic blood pressure (it is nearly 40 mm Hg)



IMPORTANT QUESTIONS:

2M QUESTIONS:

- 1) Define Heart and its functions.
- 2) Define ECG.
- 3) Define Cardiac Output.

5M QUESTIONS:

- 1) Explain the physiology and anatomy of heart.
- 2) Explain in details about blood circulation of heart with the help of diagram and conduction system of heart

10M QUESTIONS:

- 1) Explain the physiology and anatomy of heart.
- 2) Explain in details about blood circulation of heart with the help of diagram and conduction system of heart