

Cardiovascular System

FUNCTION

Control of body temperature

Supply and transport O₂ and nutrients to the body

Removal of waste (CO₂ and lactic acid)

Protection from disease

HEART

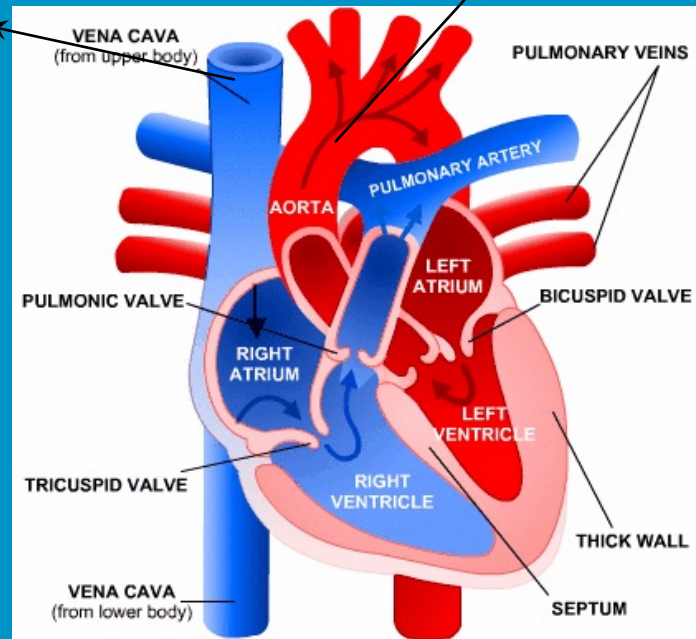
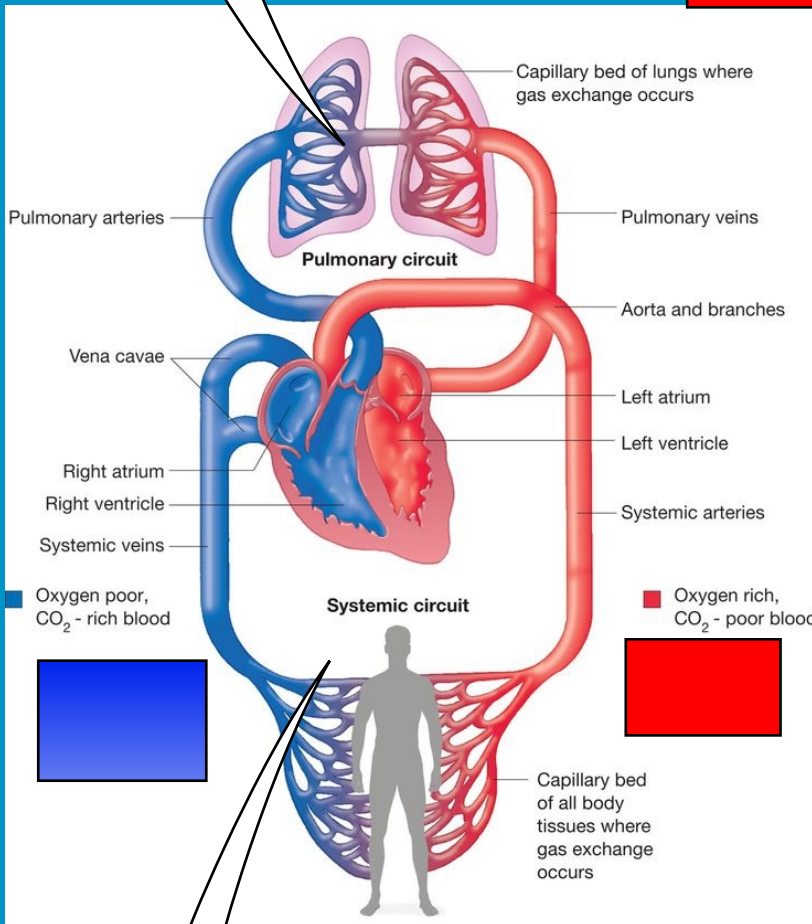
Acts as a pump
Double circulatory system

Hypertrophy
Heart gets bigger due to training

Pulmonary Circuit
Transports deoxygenated blood from the heart to the lungs
CO₂ is exchanged for O₂
Then returns to the heart

To body

From body



Heart rate - the number of times the heart beats in 1 minute (rest - 50-80)
Varies according to age, fitness, health

Cardiac output
The amount of blood pumped out of the heart in 1 minute
Varies according to intensity and fitness levels

Resting heart rate reduces due to training

Stroke Volume
The amount of blood forced out of the heart (LV) per beat
Increases by training

Maximum Heart Rate
220-age

$$\text{Cardio output} = \text{heart rate} \times \text{stroke volume}$$

Systemic circuit
Transports Oxygenated blood around body
Transports deoxygenated blood back to the heart