

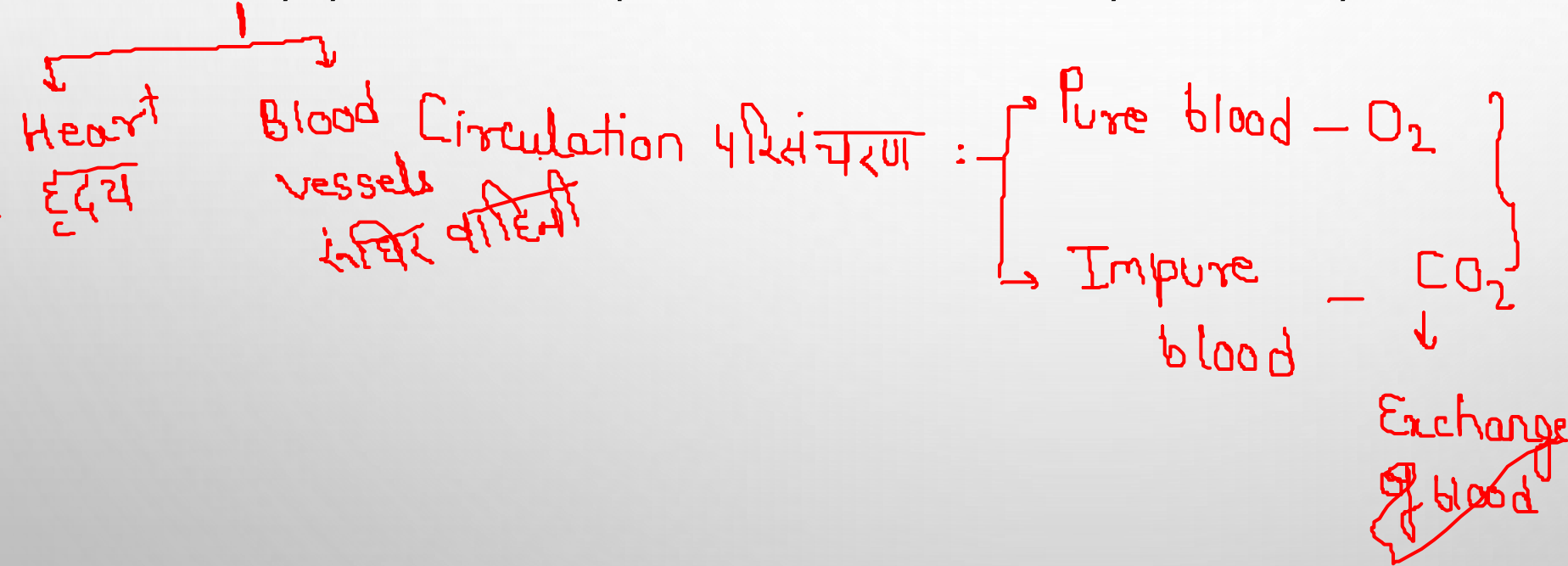


An Initiative by **अमरउजाला**

CIRCULATORY SYSTEM: परिसंचरण तंत्र

CIRCULATION: The movement of blood through the vessels of the body that is induced by the pumping action of the heart and serves to distribute nutrients and oxygen and to remove waste products from all parts of the body .

The circulatory system is made up of blood vessels that carry blood away from and towards the heart.



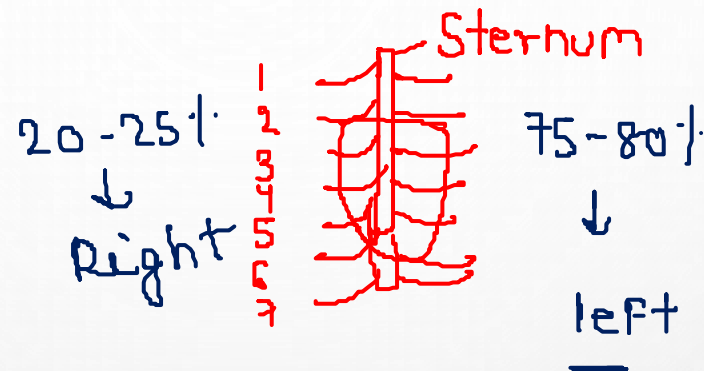
HEART:

WEIGHT:

- average weight: 300 gm *
- Average weight for male: 345gm
- Average weight for female: 285gm

SIZE: size of a large fist

Location : Behind the Sternum, Between 2nd and 6th ribs (chest cavity/ thoracic cavity)



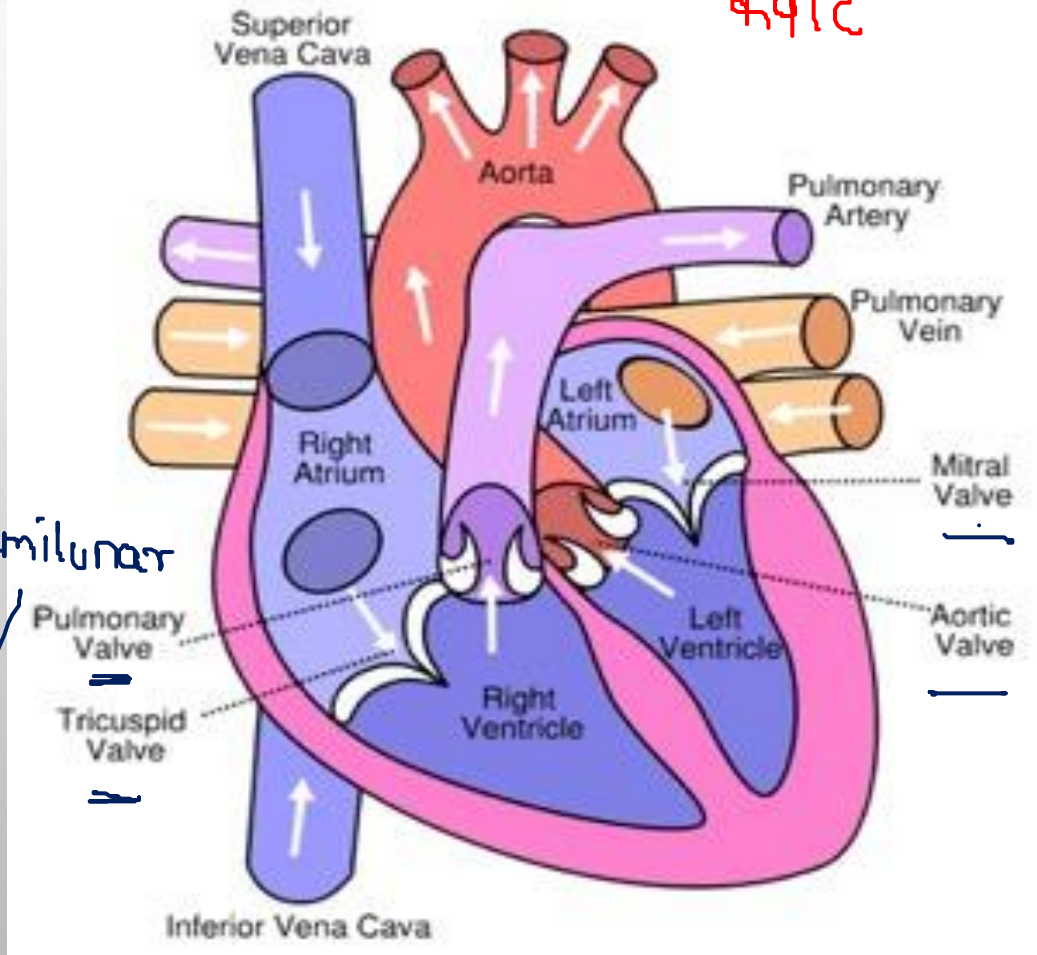
दोनी गुहा

पक्षी
गुहा

Chambers - 4
कक्ष

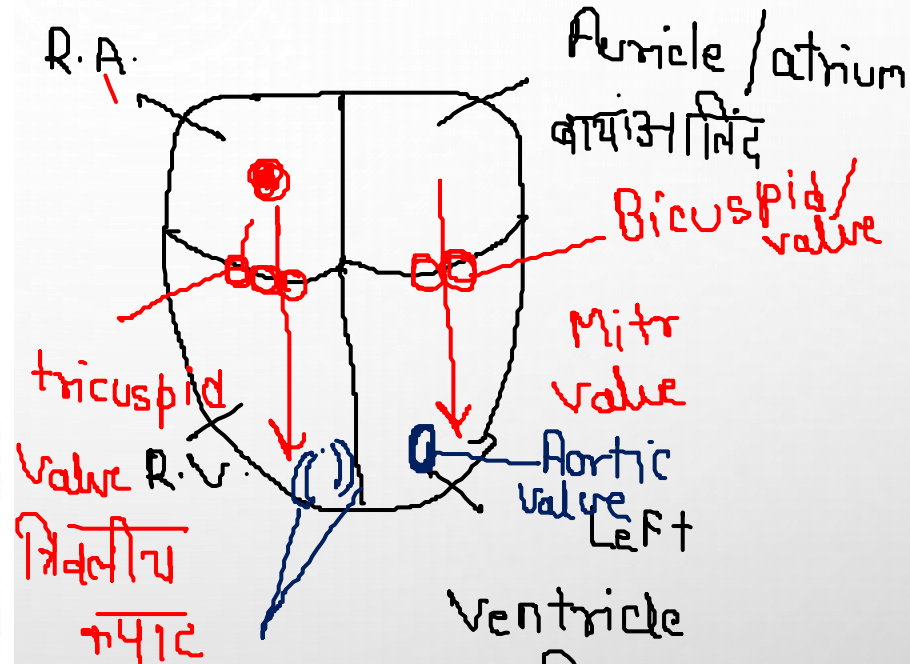
STRUCTURE OF HEART:

Valve - 4
कपाट



Semilunar

left



Semilunar valve
अर्ध चंद्र कपाट

CHAMBERS OF HEART IN DIFFERENT ORGANISM:

- Pisces: 2 chambers (1 auricle, 1 ventricle)

मत्स्य

- Amphibians: 3 chambers (2 auricles, 1 ventricle)

उभयचर

Eg: frog, Salamander

Cockroach: 13 cham

- Reptiles: 3 chambers (2 auricle, 1 ventricle)

सरीसृप

Eg: Snake, Lizards, Tortoise

Exception: Crocodile and alligator: 4 chambers

- Aves: 4 chambers (2 auricles, 2 ventricles)

पक्षी

- Mammals: 4 chambers (2 auricles, 2 ventricles)

स्तनधारी

- Whale, Dolphin, Bat, Human, Cow, Buffalo, Platypus

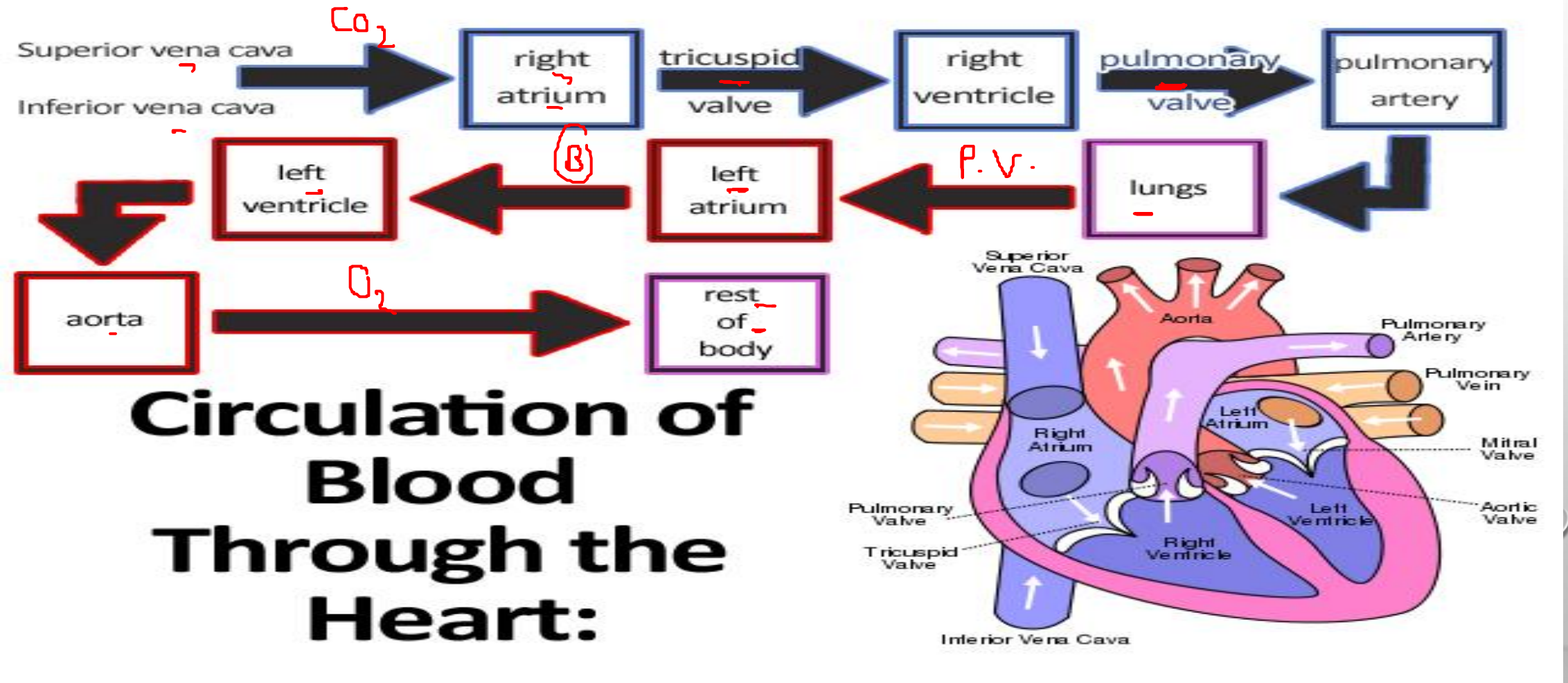
BLOOD VESSELS: रक्तधर वाहिनरी

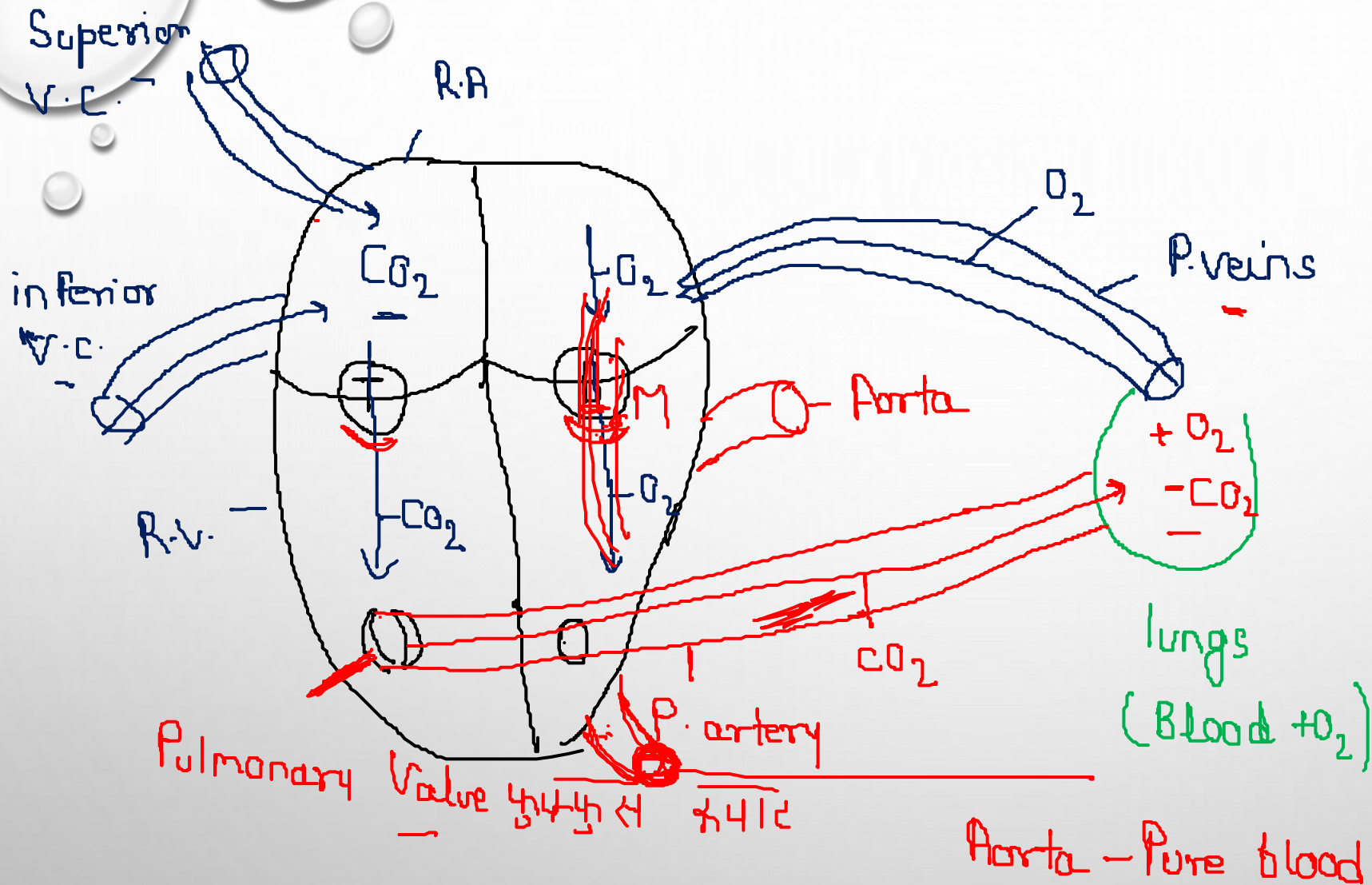
Exchange of gases

Smallest
b.v.
art + veins
& Nutrient

	VEINS शिरा → Blue	ARTERIES धमनी Red	CAPILLARIES केरिणी -
FUNCTION	TRANSPORTATION OF IMPURE BLOOD (DEOXYGENATED BLOOD) ↓ CO_2	TRANSPORTATION OF PURE BLOOD (OXYGENATED BLOOD) ↓ O_2	It is the smallest vessel which connect arteries to veins and helps in the transportation of nutrients
EXCEPTION	PULMONARY VEINS (TRANSPORT PURE BLOOD) पुनपफुस शिरा	PULMONARY ARTERY (TRANSPORT IMPURE BLOOD) CO_2	
LARGEST	VENA CAVA - CO_2 महाशिरा	AORTA - O_2 महाधमनी	

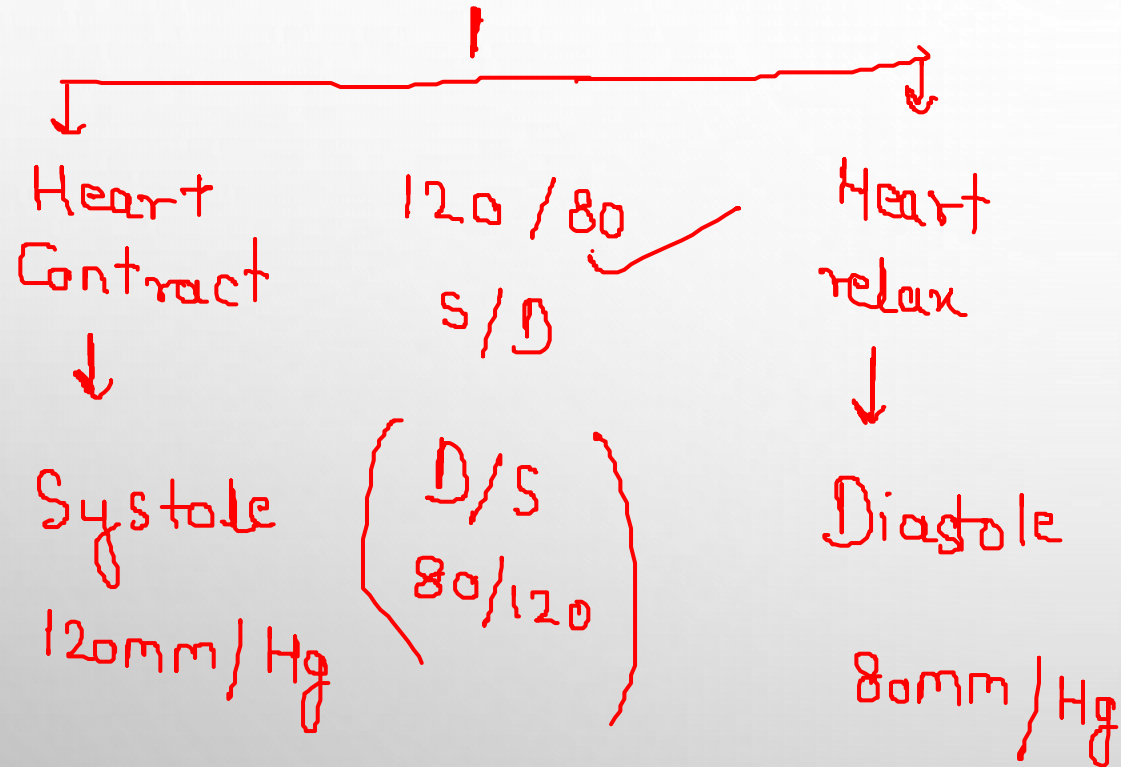
CIRCULATION OF BLOOD:





रुधिर दाब

BLOOD PRESSURE: Blood pressure is the measurement of the pressure or force of blood against the blood vessels.

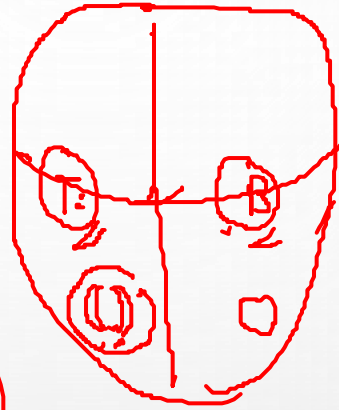


हृदय स्पंदन / धड़कन

HEART BEAT: The rhythmic sound produced by the heart due to the contraction and relaxation of Heart:

↓
Closing of Pv, I, B

Normal: LUBB-DUBB
↓ ↓
B/T Pv
S₁ S₂



Abnormal: Mur-Mur-Valves

Rate of H.B.

- Adult: (72/min)
 - Child: (120-150)/min
 - Embryo: (200/min)
शिशु
 - Gym/Running: (92-120)/min
 - Athletes: (60-68)/min
- 20% ↓

Pace maker*
Hole in the Heart

H.B ↑, Stored Energy ↓, Less life

H.B ↓, S.E ↑, More life

Blood & Circulatory System
↓
(1-2) (1)

Brain & Nervous system - (2)

* Gland & Hormone - (20-25)

* Disease -

Nutrition & Digestion

Resp + Exc.

Cell *

→ Genetics

Botany