

Human Heart

BY

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Zoology,

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DSC (physiology and Biochemistry)

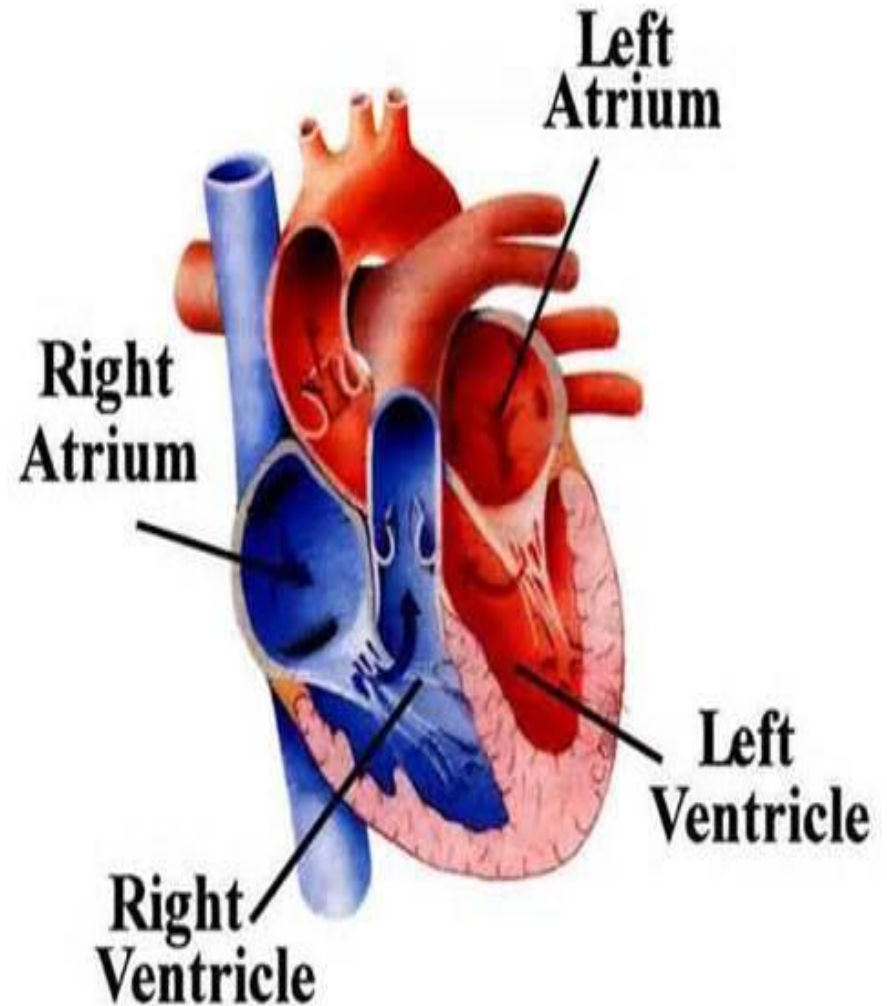
Introduction

- Heart – *acts as a blood purifier and pumps blood through the Cardiovascular System (arteries and veins).*
- It is located slightly to the left in between lungs.
- *Heart* distributes oxygen and nutrients throughout the body.



Structure of Heart

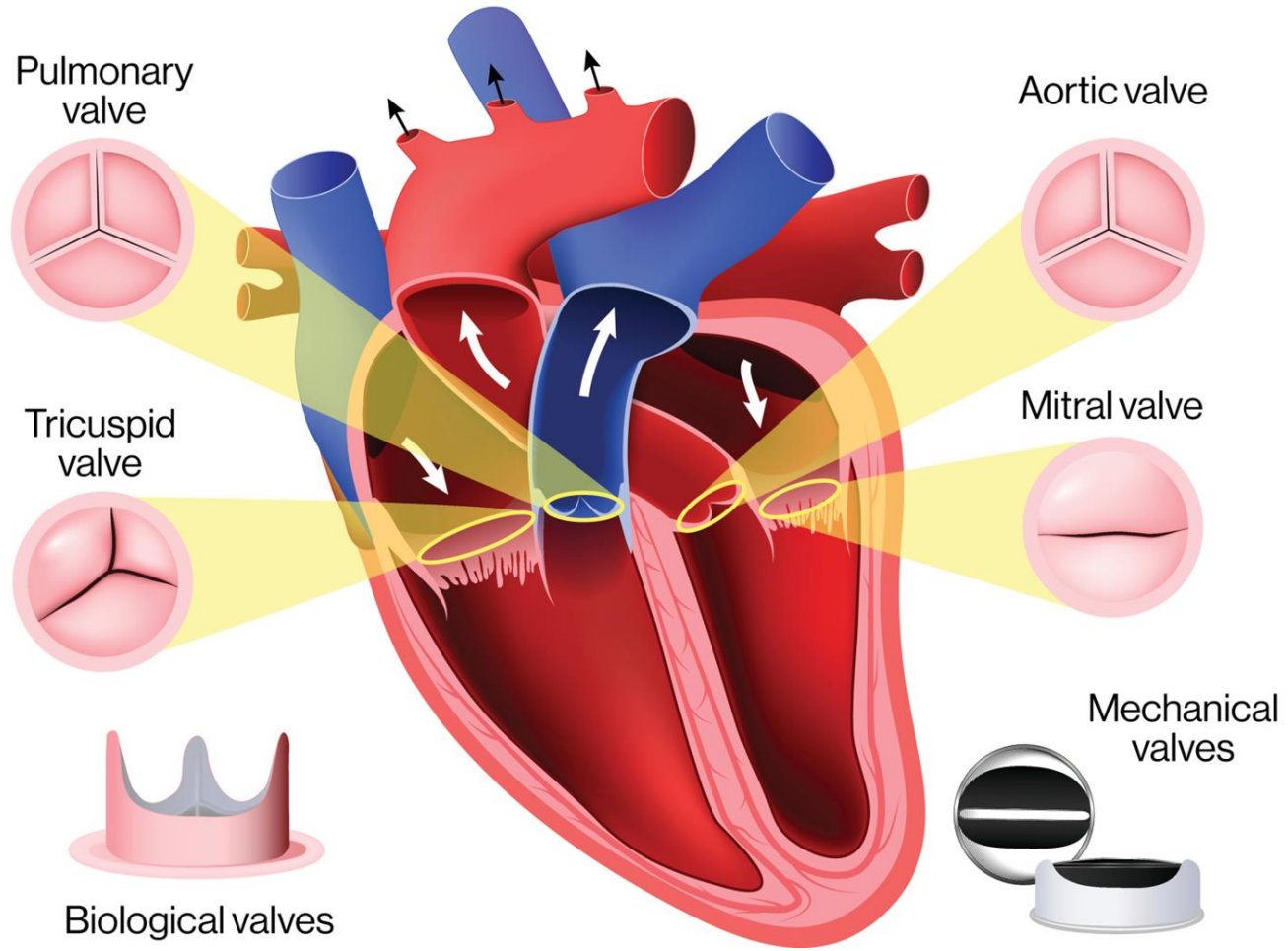
- 4 Chambers
 - 2 chambers are called **atria** (upper)
 - 2 chambers are called **Ventricles** (lower)

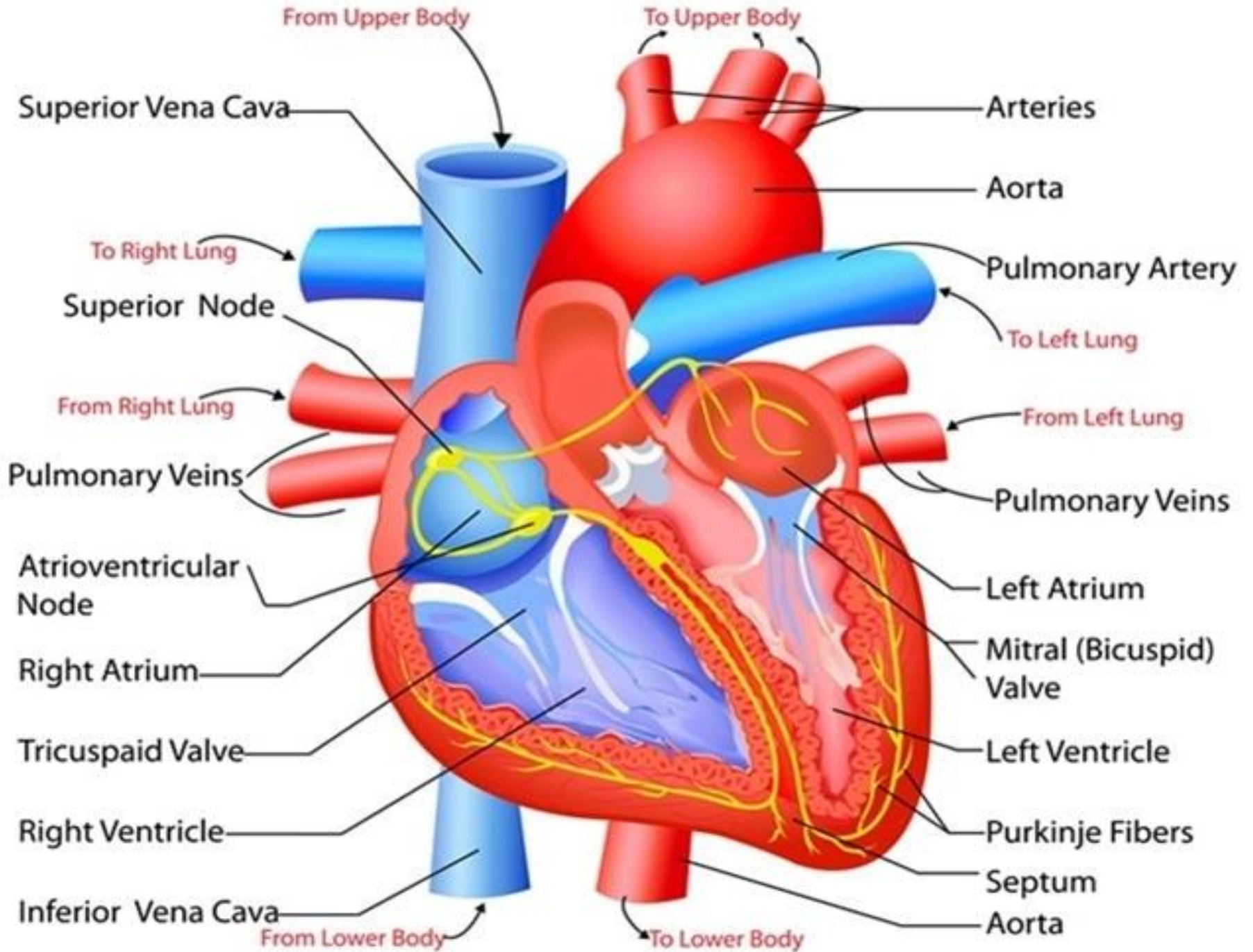


Valves of Heart

- **Aortic valve:** between the left ventricle and the aorta.
- **Mitral valve:** between the left atrium and the left ventricle.
- **Pulmonary valve:** between the right ventricle and the pulmonary artery.
- **Tricuspid valve:** between the right atrium and right ventricle

Heart valve





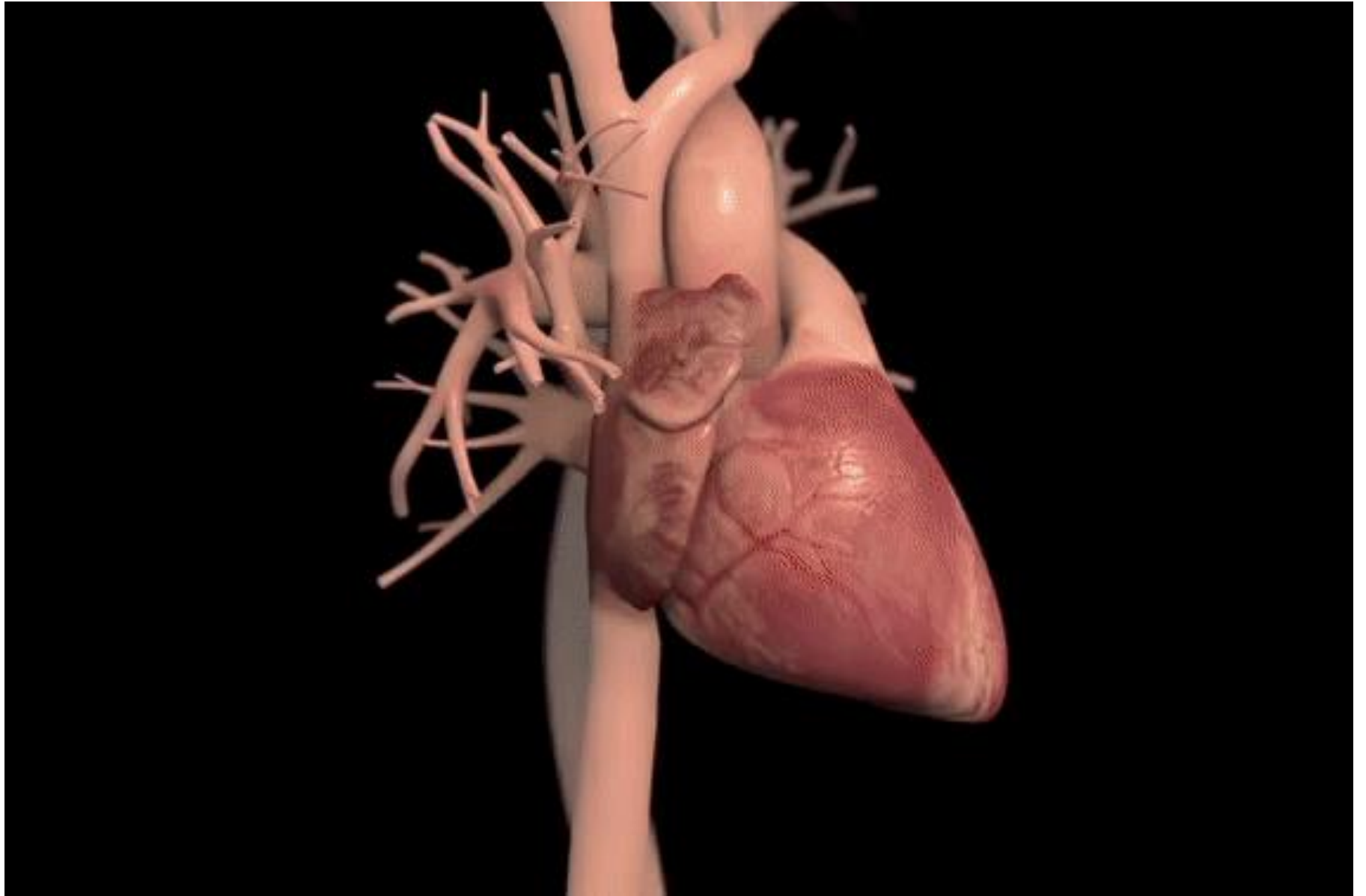
Pumping of Blood

The right atrium receives blood from the veins and pumps it to the right ventricle.

The right ventricle receives blood from the right atrium and pumps it to the lungs, where it is loaded with oxygen.

The left atrium receives oxygenated blood from the lungs and pumps it to the left ventricle.

The left ventricle (the strongest chamber) pumps oxygen-rich blood to the rest of the body. The left ventricle's vigorous contractions create our blood pressure.





Heart beat

- **Diastole** : the atria and ventricles relax and fill with blood.
- **Systole**: the atria contract (atrial systole) and push blood into the ventricles; then, as the atria start to relax, the ventricles contract (ventricular systole) and pump blood out of the heart.