

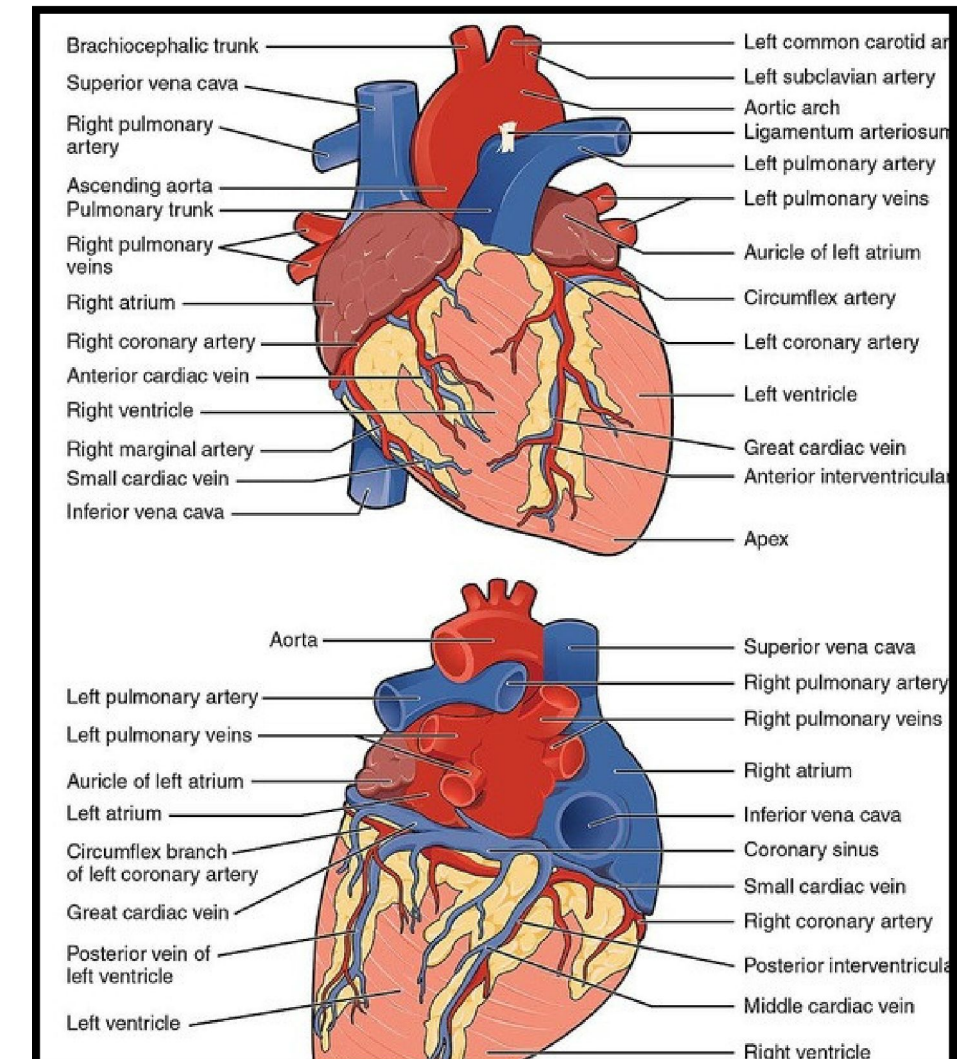
COIMBATORE-35

**SUBJECT : CLINICAL CARDIOLOGY AND
RESPIRATORY CON**

TOPIC:CORONARY CIRCULATION

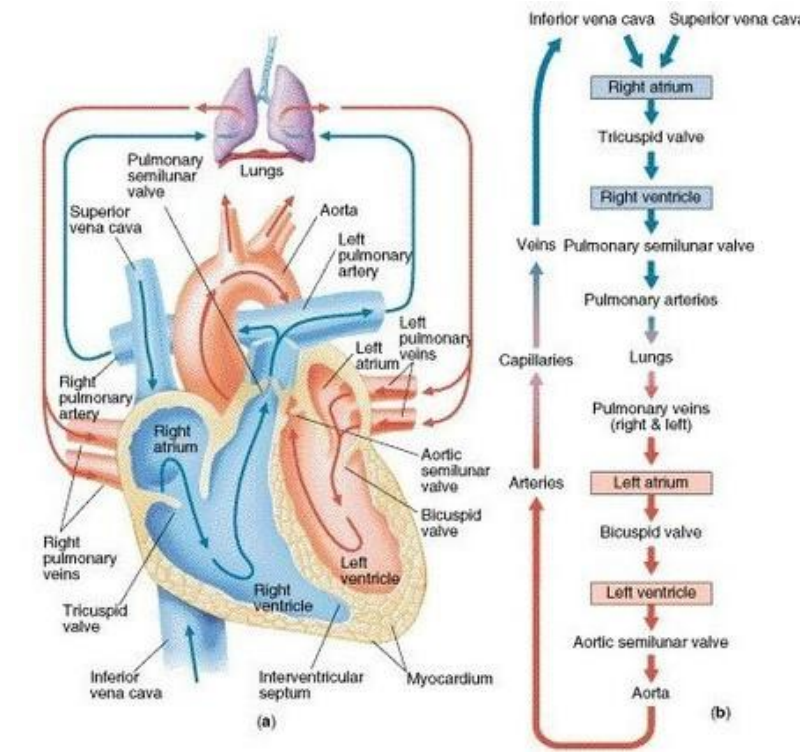
Empathize

“I feel tightness in my chest when I walk.”
The heart muscle depends on a steady blood supply —
understanding this can save lives.



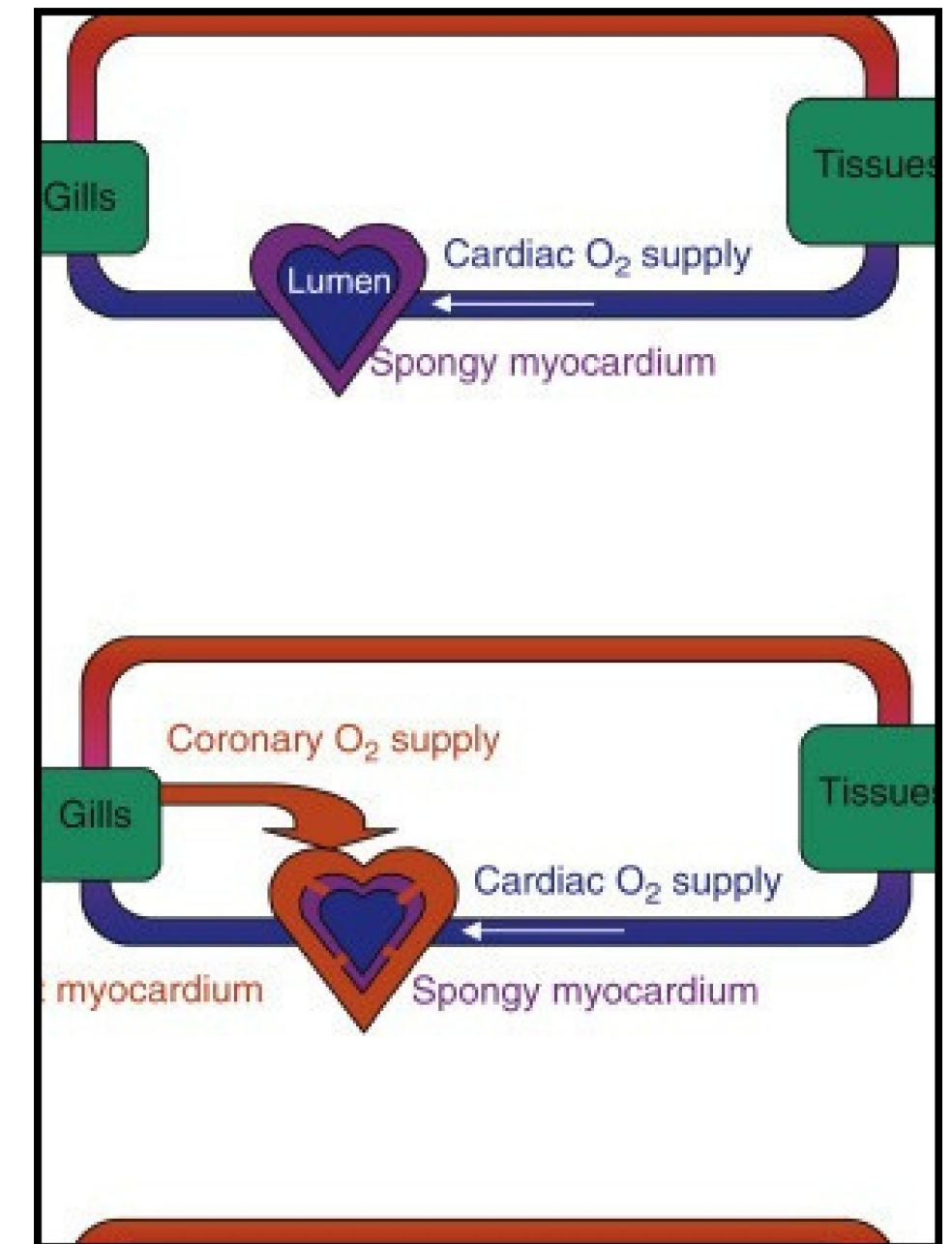
Ideate

- Visualize heart's blood supply.
- Identify areas affected during coronary block.
- Understand link between coronary anatomy and ECG findings.



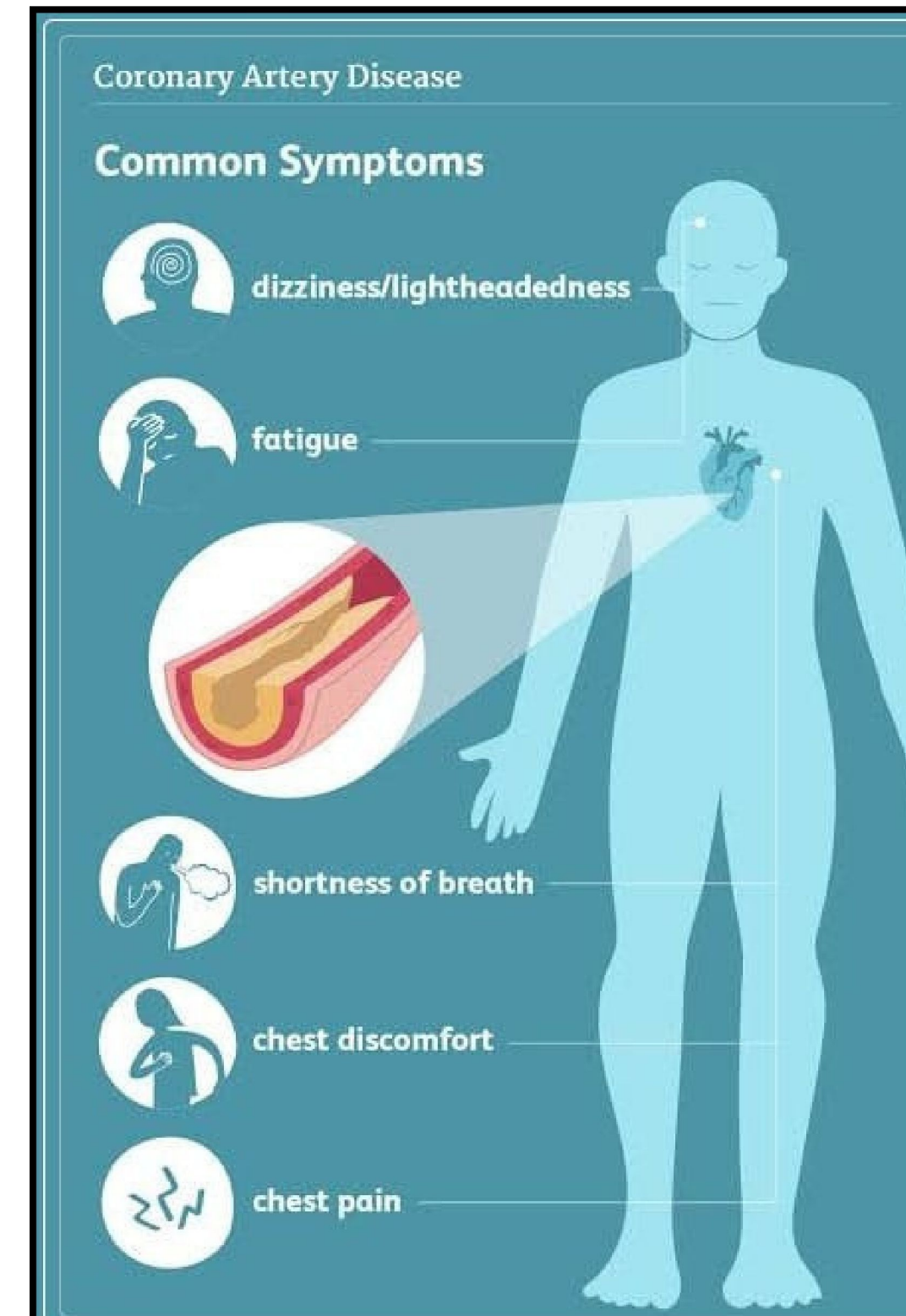
Define & Explain

Coronary circulation: blood supply to the myocardium via right & left coronary arteries. Branches arise from ascending aorta just above aortic valve.



Anatomy Overview

Left coronary artery (LCA): divides into Left anterior descending (LAD) → anterior wall
Circumflex branch (LCX) → lateral wall
Right coronary artery (RCA): supplies right atrium, ventricle, SA & AV nodes.



Venous Drainage

Great cardiac vein, middle & small cardiac veins → coronary sinus → right atrium.

Clinical Cardio Relevance



Coronary artery occlusion → myocardial ischemia → MI.

RCA block → inferior MI, bradycardia.

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LAD block → anterior MI.

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Flow Chart (Roadmap)



Aorta



Left & Right Coronary Arteries



Branch Supply to Heart Walls



Venous Drainage via Coronary Sinus



Right Atrium

MCQs

The right coronary artery mainly supplies:

- A. Left ventricle apex
- B. SA node and AV node
- C. Interventricular septum
- D. Left atrium

Answer: B

The coronary arteries arise from:

- A. Pulmonary artery
- B. Left atrium
- C. Ascending aorta
- D. Descending aorta

Answer: C

MCQs



The left coronary artery divides into:

- A. RCA and PDA
- B. LAD and Circumflex artery
- C. SA nodal artery and AV nodal artery
- D. Marginal and diagonal arteries

Answer: B

Blood flow through coronary arteries occurs maximally during:

- A. Ventricular systole
- B. Ventricular diastole
- C. Atrial systole
- D. Isovolumetric contraction

Answer: B