HANDOUT



What is the primary function of the left atrium?

- a. Pump blood to the lungs
- **b.** Receive oxygenated blood from the lungs
- c. Pump blood to the body
- **d.** Receive deoxygenated blood from the body
- What phase of the cardiac cycle is depicted in this image?











Rationale:

Rationale:

- a. Ventricular Ejection
- **b.** Atrial Systole
- c. Atrial Diastole
- d. Isovolumetric Contraction
- 3 What is considered a normal R-wave transition?
 - **a.** The R wave becomes larger than the S wave between V3 and V4
 - **b.** The R wave becomes larger than the S wave between V1 and V2
 - **c.** The R wave remains smaller than the S wave in all precordial leads
 - **d.** The R wave transition occurs after lead V5

Rationale:

A 32-year-old woman comes to the office for a regular health check-up. She does not have any complaints and mentions that she has started to train for an upcoming marathon and hydrates exclusively with electrolyte solutions, as well as taking "electrolyte supplements" given to her by another marathoner. Family history is significant for hypertension in both of her parents. Her father died of a myocardial infarction a few years ago. The vital signs include heart rate 55/min, respiratory rate 16/min, temperature 37.6°C (99.6°F), and blood pressure 120/88 mm Hg. The physical exam findings are within normal limits. A routine electrocardiogram (ECG) is shown.

The abnormal waves seen in the precordial leads of the ECG tracing represents which of the following mechanical events?

a. Ventricular depolarization b. Period between ventricular depolarization and repolarization c. Ventricular repolarization d. Atrial depolarization	Rationale:		
What is the most common cause of heart failure?			
a. Diabetes b. Hypertension c. Ischemic Heart Disease d. Valvular heart disease A 56-year-old man presents for an annual wellness exam. He has no complaints at the moment of presentation. He was diagnosed with type 2 diabetes mellitus a year ago and takes metformin. Past history is significant for postinfectious myocarditis 15 years ago with no apparent residual heart failure. His blood pressure has been slightly elevated on his last 2 visits. Today, his BMI is 31 kg/m², blood pressure is 140/85 mm Hg, and heart rate is 84/min. Physical examination is remarkable only for obesity, and cardiac exam is normal. His ECG is significant for increased R amplitude in leads I, II, and V3-6 and an incomplete left bundle branch block.			
 What medication is recommended for this patient? a. Diltiazem b. Amlodipine c. Furosemide d. Lisinopril 	Rationale:		
What is the most common cause of myocardial infarction?			
a. Myocarditisb. Atherosclerosisc. Hypertensiond. Cardiomyopathy	Rationale:		



8	3	A patient presents with chest pain and ST-segment elevation on ECG. What is the likely diagnosis?
Y		diagnosis?

- a. Unstable angina
- **b.** Stable angina
- **c.** STEMI (ST-Elevation Myocardial Infarction)
- **d.** NSTEMI (Non-ST-Elevation Myocardial Infarction)

Rationale:

- 9 Which of the following medications is a selective beta-1 blocker?
 - a. Propranolol
 - **b.** Atenolol
 - c. Carvedilol
 - **d.** Labetalol

- Rationale:
- 10 Which class of drugs is commonly used to treat hypertension by blocking angiotensin II?
 - a. Calcium channel blockers
 - **b.** ACE inhibitors
 - c. Beta-blockers
 - **d.** Diuretics

Rationale:

Answers: 1. B, 2. B, 3. A, 4. C, 5. C, 6. D, 7. C, 8. C, 9. B, 10. B

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