

Advanced 12-Lead EKG Interpretation Primer Post-Test

Name _____
(Please enter legal name above)

Birth date (required)

Format: 01/03/1999

M	M	D	D	Y	Y	Y	Y

Where do you work? (example: HCMC, MVAHCS, etc.) Enter N/A if you are not employed.

Hospital _____ Unit _____

*Email Address _____

**TCHP hospitals must use work email address.*

I verify that I have read this home study and have completed the post-test and evaluation.

By checking this box, I am submitting my electronic signature to this statement.

- 1) Which of the following is not a characteristic of cardiac electrical cells?
 - a) automaticity
 - b) excitability
 - c) conductivity
 - d) contractility
- 2) Which phase of the action potential would lidocaine affect?
 - a) 0
 - b) 1
 - c) 2
 - d) 3
- 3) Calcium channel blockers affect what phase of the action potential?
 - a) 0
 - b) 1
 - c) 2
 - d) 3
- 4) If the lead current flows in the same direction as the mean vector in the heart, the waveform will be:
 - a) upright
 - b) downward
 - c) flat
 - d) I don't know
- 5) If the lead current flows in the opposite direction as the mean vector of flow in the heart, the waveform will be:
 - a) upright
 - b) downward
 - c) flat
 - d) I don't know
- 6) The isoelectric line is located between the:
 - a) QRS and T wave
 - b) P wave and QRS
 - c) T and P waves
 - d) Q and T waves
- 7) The P wave should be:
 - a) less than 0.11 seconds in duration
 - b) Less than 3 mm in height
 - c) round and smooth
 - d) all of the above
- 8) In the precordial leads, the height of the QRS should be less than:
 - a) 10 mm
 - b) 20 mm
 - c) 30 mm
 - d) 40 mm

- 9) A "q" wave is normal in which leads?
- II, aVF
 - I, aVL
 - V1, V3
 - aVR, II
- 10) A "q" wave is abnormal if it is:
- < 0.03 seconds in width
 - > 0.04 seconds in width
 - seen in leads V5 and V6
 - none of the above
- 11) All waveforms in Leads I, II, and III should be:
- upright
 - downward
 - flat
 - I don't know
- 12) The QRS complex in V3 or V4 may be biphasic. This is known as the:
- midpoint
 - transition
 - R wave progression
 - baseline
- 13) What is the normal axis?
- 30 - 150
 - 35 - 97
 - 30 - +105
 - 105 - 150
- 14) A slender adult with COPD may have a:
- right axis deviation
 - left axis deviation
 - axis in "no man's land"
 - none of the above
- 15) A heavy-set adult with an inferior MI may have a
- right axis deviation
 - left axis deviation
 - axis in "no man's land"
 - none of the above
- 16) Which axis may indicate whether a rhythm is supraventricular or ventricular in nature?
- right axis deviation
 - left axis deviation
 - axis in "no man's land"
 - none of the above

This post test does not contain 12-leads for participants to analyze.

Match the following blood vessels with the part of the heart that they supply:

- LAD
 - RCA
 - Acute marginal branch
 - Circumflex
 - Obtuse marginal branch
- 17) right atrium_____
- 18) right ventricle_____
- 19) inferior right ventricle_____
- 20) AV node_____
- 21) anterior septum_____
- 22) lateral/posterior left ventricle_____
- 23) anterior left ventricle_____
- 24) Which leads look at the inferior part of the heart?
- II, III, aVF
 - V1-V4
 - I, aVL, V5-6
 - V1-V3
- 25) Which leads look at the anterior part of the heart?
- II, III, aVF
 - V1-V4
 - I, aVL, V5-6
 - V1-V3
- 26) Which leads look at the septum?
- II, III, aVF
 - V1-V4
 - I, aVL, V5-6
 - V1-V3

Expiration date: The last day that post tests will be accepted for this edition is **December 31, 2017**—your envelope must be postmarked on or before that day.

Evaluation: Advanced 12-Lead EKG Interpretation Primer

Please complete the evaluation form below by placing an "X" in the box that best fits your evaluation of this educational activity. Completion of this form is required to successfully complete the activity and be awarded contact hours.

At the end of this home study program, I am able to:	Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree
1. Describe the electrophysiology behind cardiac electrical action.	
2. Identify the normal conduction of electrical current and the waveforms this current produces.	
3. Explain when a waveform is upright or negative.	
4. Describe the normal waveforms in each of the 12 leads.	
5. Identify which leads look at which parts of the heart wall.	
6. Identify the axis of the QRS complex in two different ways.	
7. The teaching / learning resources were effective. <i>If not, please comment:</i>	

The following were disclosed in writing prior to, or at the start of, this educational activity (please refer to the first 2 pages of the booklet).	YES or NO
8. Notice of requirements for successful completion, including purpose and objectives	
9. Conflict of interest	
10. Disclosure of relevant financial relationships and mechanism to identify and resolve conflicts of interest	
11. Sponsorship or commercial support	
12. Non-endorsement of products	
13. Off-label use	
14. Expiration Date for Awarding Contact Hours	
15. Did you, as a participant, notice any bias in this educational activity that was not previously disclosed? <i>If yes, please describe the nature of the bias:</i>	

16. How long did it take you to read this home study and complete the post test and evaluation:
_____ hours and _____ minutes.

17. Did you feel that the number of contact hours offered for this educational activity was appropriate for the amount of time you spent on it?

___ Yes

___ No, more contact hours should have been offered

___ No, fewer contact hours should have been offered.

Expiration date: December 31, 2017
