

Corrections for Certified EKG Technician (CET) Study Guide

The dates listed below indicate when the correction was added to this document. These corrections are also made for subsequent printings and within the tutorial version of the book. Implementation of those changes will vary based on deployment schedules for the tutorial updates and depletion of print stock.

Page	Chapter	Description	Date of Change
III	Intro	<p>The purpose of the CET certification is to establish a standard of care among EKG technicians. In order to To sit for the CET examination, the applicant must have a high school diploma or GED and successfully complete a 60-hour training program offered by an accredited or state-recognized institution or provider that includes EKG instruction or successfully complete a Registered Apprenticeship Program that includes EKG training. (The program must be registered with the U.S. Department of Labor.) The training for both paths must have occurred in the last five years. The CET candidate may substitute one year of EKG technician experience in lieu of attending a formal training program, as long as it was in the last three years. With this both options, the CET candidate must provide documentation of having successfully completed at least 10 EKGs on live patients. Refer to the candidate handbook for specifics. Candidates can register for the examination online at https://www.nhanow.com/certifications/ekg-technician. www.nhanow.com.</p>	10/9/2019
15	1	<p>You will clean the skin and trim or shave hair if necessary to ensure proper contact between the skin and electrode. Clipping is preferred over shaving to reduce the chances of skin irritation.</p>	12/20/2018

<p>23</p>	<p>2</p>	<p>The coronary circulation is a passive, low-pressure system. Two vessels arise from the root of the aorta; these are the right and left coronary arteries. The coronary circuit is perfused during ventricular diastole. This is different from the rest of the circulatory system, which is normally perfused during ventricular systole. The right and left coronary arteries originate at the root of the aorta. During ventricular systole, the semilunar valves are closed and the ventricles fill with blood. The increased blood in the ventricles cause pressure on the epicardium, which results in compression of the coronary vessels. Furthermore, as the ventricular myocardium is contracting, the surface length is shorter than during diastole. This causes the coronary vessels that are located on the epicardium to become tortuous. Attempting to perfuse these vessels during ventricular systole would mean having to overcome high pressure, high vascular resistance, and tortuous vessels. This situation would not be efficient.</p> <p>The right and left coronary arteries originate at the root of the aorta. They run along the epicardium and supply blood to the heart. During ventricular diastole, the semilunar valves are closed, and the ventricles begin filling with blood. The myocardium relaxes and no longer compresses on the coronary vessels, allowing them to be perfused.</p> <p>In contrast, during ventricular systole, the myocardium contracts and there is increased pressure in the ventricles. This compresses the coronary arterial branches and prevents perfusion. Therefore, coronary perfusion occurs during ventricular diastole rather than systole.</p>	<p>6/13/2024</p>
-----------	----------	---	------------------

24	2	On the EKG, the time needed for an electrical impulse to travel from the SA node through the AV node to the ventricles is recorded as the PR interval., which is noted where the P wave ends and the Q wave begins. The PR interval starts at the beginning of the P wave and ends at the beginning of the Q wave. The expected PR interval is 0.12 to 0.20 seconds. If the AV node is not conducting impulses as expected, the PR interval can increase. Complete heart block occurs when the AV node is unable to conduct any electrical impulses from the SA node to the ventricles.	12/09/2021
30	2	Scissors and/or shaving equipment (if hair removal is needed)	12/20/2018
33	2	Slight alterations in placement can need to be considered based on the patient anatomy or skin condition and manufacturer's instructions.	6/6/2018
33	2	White lead: Right sternal border, first rib Red lead: Right sternal border, third rib Black lead: Left side, anterior axillary line, fifth rib Brown lead: Left sternal border, first rib directly opposite the white lead Green lead: Right lower thoracic area anywhere on the rib cage [updated image] White lead: Right chest, distal to sternum, about two inches below the clavicle Red lead: Left chest, lower rib-cage area Black lead: Left chest, opposite of white lead Brown lead: Right chest, fourth rib, proximal to sternum Green lead: Right lower chest, over a rib	9/17/2020
33	2	[updated image] White lead: Right chest, distal to sternum, about two inches below the clavicle Red lead: Left chest, lower rib-cage area Black lead: Left chest, opposite of white lead Brown lead: Right chest, fourth rib, proximal to sternum	1/21/2021
39	2	Increasing speeds and incline of treadmill occur every 3 min until the target heart rate ($(220 - \text{age}) \times 0.85$) is achieved. Target heart rates are typically calculated by taking 60% to 85% of the maximum heart rate, depending on protocol.	10/18/2018
43	3	It is common practice to use This scenario uses 70% to calculate the patient's target heart rate.	10/18/2018

43	3	This is simple way to calculate the target heart rate, but there are many methods. Target heart rates are typically calculated using between 60% and 85% of the maximum heart rate, depending on protocol. Be sure to follow your institution's protocols for calculating target heart rate.	10/18/2018
66	Quizzes	2. An EKG technician is reviewing an EKG tracing and notices that the calibration mark measures 10 mm high and 10 mm wide. The technician should expect to find that the machine is using which of the following settings? A. 25 mm/second B. 2 mm /mV C. 50 mm/second D. 0.5 mm /mV	6/6/2018
68	Quizzes	19. Which of the following changes to the settings of the EKG machine will double the height of the tracing it produces? A. 10 mm /mV B. 25 mm/second C. 20 mm /mV D. 50 mm/second	6/6/2018
80	Quizzes	19. C. Correct. Setting the gain of the EKG machine to 20 mm /mV will double the height, or amplitude, of the tracing produced by the EKG machine.	6/6/2018
80	Quizzes	2. A. When using the 6-second method, there are six 12 R waves within a 6-second section of the tracing. B. When using the 6-second method, there are six 12 R waves within a 6-second section of the tracing. C. CORRECT. When determining the patient's heart rate using the 6-second method, identify the number of QRS complexes on the tracing and locate the R waves within the QRS complexes. The number of QRS complexes or R waves that appear in a 6-second section of the tracing should be multiplied by 10. There are 12 R waves in a 6-second section of this tracing. $12 \times 10 = 120/\text{min}$ D. When using the 6-second method, there are six 12 R waves within a 6-second section of the tracing.	12/20/2018