

Corrections for Certified Clinical Medical Assistant (CCMA) Study Guide 3.0

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

Page	Previous Text	Updated Text	Date of Change										
95	No challenge questions included.	<p>Challenge</p> <p>1. Lying face-down could be described as which of the following positions?</p> <p>A. Prone B. Supine C. Anatomical D. Fowler position</p> <p>A is correct.</p> <p>2. What does anatomical position refer to?</p> <p>Anatomical position is the standard frame of reference in which the body is standing up, face forward, arms at the sides, palms forward, and toes pointed forward.</p> <p>3. Match the direction term with the correct definition.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">TERM</th> <th style="text-align: center;">DEFINITION</th> </tr> </thead> <tbody> <tr> <td>Anterior</td> <td>Closer to the midline of the body</td> </tr> <tr> <td>Superior</td> <td>Toward the head of the body</td> </tr> <tr> <td>Medial</td> <td>Toward the front of the body</td> </tr> <tr> <td>Sinistrad</td> <td>Toward the left side of the body</td> </tr> </tbody> </table> <p>A: 3, B: 2, C: 1, D: 4</p>	TERM	DEFINITION	Anterior	Closer to the midline of the body	Superior	Toward the head of the body	Medial	Toward the front of the body	Sinistrad	Toward the left side of the body	12/28/2023
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116	3.9 Blood Pressure Expected Reference Range by Age		3.9 Blood Pressure Expected Reference Range by Age		11/21/2023	
	AGE CATEGORY	SYSTOLIC (MM HG)	DIASTOLIC (MM HG)	AGE		BLOOD PRESSURE (MM HG)
	Birth	67 to 84	35 to 53	Older than 12 years		Systolic: 110 to 130 Diastolic: 65 to 80
	Infant (1 to 2 months)	72 to 104	37 to 56	6 to 12 years		Systolic: 100 to 120 Diastolic: 60 to 75
	Toddler (1 to 2 years)	86 to 106	42 to 63	3 to 6 years		Systolic: 95 to 110 Diastolic: 60 to 75
	Preschooler (3 to 5 years)	89 to 112	46 to 72	1 to 3 years		Systolic: 90 to 105 Diastolic: 55 to 70
	School-age (6 to 9 years)	97 to 115	57 to 76			
	Preadolescent (9 to 11 years)	102 to 120	61 to 80			
	Adolescent (11 to 15 years)	110 to 134	64 to 83			
	Adult (15+ years)	Less than 120	Less than 80			

116	3.10 Stages of Hypertension		3.10 Blood Pressure Categories		10/18/2023
	BLOOD PRESSURE CATEGORY	BLOOD PRESSURE (MM HG)	BLOOD PRESSURE CATEGORY	BLOOD PRESSURE (MM HG)	
	Normal	Systolic (upper number): Less than 120 <i>AND</i> Diastolic (lower number): Less than 80	Normal	Systolic (upper number): Less than 120 <i>AND</i> Diastolic (lower number): Less than 80	
	Prehypertension	Systolic: 120 to 139 <i>OR</i> Diastolic: 80 to 89	Elevated	Systolic: 120 to 129 <i>OR</i> Diastolic: Less than 80	
	High Blood Pressure (Hypertension) Stage 1	Systolic: 140 to 159 <i>OR</i> Diastolic: 90 to 99	High Blood Pressure (Hypertension) Stage 1	Systolic: 130 to 139 <i>OR</i> Diastolic: 80 to 89	
	High Blood Pressure (Hypertension) Stage 2	Systolic: 160 or higher <i>OR</i> Diastolic: 400 or higher	High Blood Pressure (Hypertension) Stage 2	Systolic: 140 or higher <i>OR</i> Diastolic: 90 or higher	
	Hypertension Crisis (Emergency care needed)	Systolic: Higher than 180 <i>OR</i> Diastolic: Higher than 110	Hypertensive Crisis (Consult your provider immediately)	Systolic: Higher than 180 <i>OR</i> Diastolic: Higher than 120	
		Source: American Heart Association			

117	<p>If the provider is concerned about orthostatic hypotension, they may ask the MA to measure orthostatic vital signs. To do so, check the patient's blood pressure and pulse rate while lying down, sitting upright, and standing. Wait for 2 to 5 minutes before checking each position to allow the vital signs to regulate and adjust to the change in position. An increased pulse rate of at least 10 beats per minute (bpm) and a decreased blood pressure of at least 20 points between positions indicate orthostatic hypotension.</p>	<p>If the provider is concerned about orthostatic hypotension, they may ask the MA to measure orthostatic vital signs. The CDC recommends having the patient lie down for 5 minutes and then measure blood pressure and pulse rate. Next, have the patient stand for 1 minute and repeat the blood pressure and pulse rate measurements. Have the patient remain standing and repeat the measurements again after 3 minutes. The practice's protocol may also require measurements to be completed while the patient is in a sitting position. An increased pulse rate of at least 10 beats per minute (bpm) and a decreased blood pressure of at least 20 points between positions indicate orthostatic hypotension.</p>	11/21/2023																																
119	<p>3.15 Vital Sign Ranges by Age</p> <table border="1" data-bbox="220 716 1014 1357"> <thead> <tr> <th>AGE</th> <th>BLOOD PRESSURE (MM HG)</th> <th>PULSE (BEATS/MIN)</th> <th>RESPIRATIONS (BREATHS/MIN)</th> </tr> </thead> <tbody> <tr> <td>Older than 12 years</td> <td>Systolic: 110 to 130 Diastolic: 65 to 80</td> <td>60 to 100</td> <td>12 to 20</td> </tr> <tr> <td>6 to 12 years</td> <td>Systolic: 100 to 120 Diastolic: 60 to 75</td> <td>60 to 110</td> <td>15 to 22</td> </tr> <tr> <td>3 to 6 years</td> <td>Systolic: 95 to 110 Diastolic: 60 to 75</td> <td>70 to 120</td> <td>20 to 24</td> </tr> <tr> <td>1 to 3 years</td> <td>Systolic: 90 to 105 Diastolic: 55 to 70</td> <td>80 to 150</td> <td>22 to 30</td> </tr> </tbody> </table>	AGE	BLOOD PRESSURE (MM HG)	PULSE (BEATS/MIN)	RESPIRATIONS (BREATHS/MIN)	Older than 12 years	Systolic: 110 to 130 Diastolic: 65 to 80	60 to 100	12 to 20	6 to 12 years	Systolic: 100 to 120 Diastolic: 60 to 75	60 to 110	15 to 22	3 to 6 years	Systolic: 95 to 110 Diastolic: 60 to 75	70 to 120	20 to 24	1 to 3 years	Systolic: 90 to 105 Diastolic: 55 to 70	80 to 150	22 to 30	<p>3.15 Pulse Ranges by Age</p> <table border="1" data-bbox="1035 716 1770 995"> <thead> <tr> <th>AGE</th> <th>PULSE (BEATS/MIN)</th> </tr> </thead> <tbody> <tr> <td>Adolescent and older</td> <td>60 to 100</td> </tr> <tr> <td>School-age child (6 to 15 years)</td> <td>75 to 118</td> </tr> <tr> <td>Preschooler (3 to 5 years)</td> <td>80 to 120</td> </tr> <tr> <td>Toddler (1 to 2 years)</td> <td>98 to 140</td> </tr> <tr> <td>Infant (1 to 12 months)</td> <td>100 to 180</td> </tr> </tbody> </table>	AGE	PULSE (BEATS/MIN)	Adolescent and older	60 to 100	School-age child (6 to 15 years)	75 to 118	Preschooler (3 to 5 years)	80 to 120	Toddler (1 to 2 years)	98 to 140	Infant (1 to 12 months)	100 to 180	11/21/2023
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120	<p>The normal average respiratory rate in a newborn is 30 to 50/min compared to an adult rate of 12 to 20/min. When observing the chest, the respiratory rate is counted. The provider may also identify abnormal breathing sounds during auscultation, including wheezing, rales, or rhonchi.</p>	<p>When observing the chest, the respiratory rate is counted. The provider may also identify abnormal breathing sounds during auscultation, including wheezing, rales, or rhonchi.</p>	10/20/2023																										
120	<p>3.18 Respiratory Rate Expected Reference Ranges</p> <table border="1" data-bbox="226 488 787 1044"> <thead> <tr> <th>AGE</th> <th>RATE (BREATHS/MIN)</th> </tr> </thead> <tbody> <tr> <td>Newborn</td> <td>30 to 40</td> </tr> <tr> <td>Infants</td> <td>30 to 60</td> </tr> <tr> <td>Toddler</td> <td>26 to 32</td> </tr> <tr> <td>Child</td> <td>20 to 30</td> </tr> <tr> <td>Adolescent</td> <td>16 to 20</td> </tr> <tr> <td>Adults</td> <td>16 to 22</td> </tr> </tbody> </table>	AGE	RATE (BREATHS/MIN)	Newborn	30 to 40	Infants	30 to 60	Toddler	26 to 32	Child	20 to 30	Adolescent	16 to 20	Adults	16 to 22	<p>3.18 Respiratory Rate Expected Reference Ranges</p> <table border="1" data-bbox="1039 488 1768 998"> <thead> <tr> <th>AGE</th> <th>RATE (BREATHS/MIN)</th> </tr> </thead> <tbody> <tr> <td>Adolescent and older</td> <td>12 to 20</td> </tr> <tr> <td>School-age child (6 to 15 years)</td> <td>18 to 25</td> </tr> <tr> <td>Preschooler (3 to 5 years)</td> <td>20 to 28</td> </tr> <tr> <td>Toddler (1 to 2 years)</td> <td>22 to 37</td> </tr> <tr> <td>Infant (1 to 12 months)</td> <td>30 to 53</td> </tr> </tbody> </table>	AGE	RATE (BREATHS/MIN)	Adolescent and older	12 to 20	School-age child (6 to 15 years)	18 to 25	Preschooler (3 to 5 years)	20 to 28	Toddler (1 to 2 years)	22 to 37	Infant (1 to 12 months)	30 to 53	11/21/2023
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126	<p>Weight is measured in pounds or kilograms. Document weight in the units approved by medical office protocol. Sometimes a medical assistant will have to convert weight from one unit of measurement to another. One pound equals 2.2 kilograms (1 lb equals 2.2 kg).</p>	<p>Weight is measured in pounds or kilograms. Document weight in the units approved by medical office protocol. Sometimes a medical assistant will have to convert weight from one unit of measurement to another. One kilogram equals 2.2 pounds (1 kg equals 2.2 lb).</p>	10/20/2023																										
128	<p>2. Which of the following are abnormal vital signs in an adult? (Select all that apply.) ... D. Blood pressure 110/48 mm Hg</p>	<p>2. Which of the following are abnormal vital signs in an adult? (Select all that apply.) ... D. Blood pressure 110/68 mm Hg</p>	10/02/2023																										

149	<p>With your nondominant hand, gently pull down the lower lid of the affected eye using the thumb or two fingers to expose the conjunctival sac. Gently rest the dominant hand on the patient's forehead and dispense a drop approximately ½ inch above the sac. If a cream or ointment is being administered, evenly apply a thick ribbon of the ointment along the inside edge of the lower eyelid on the conjunctiva, moving from the medial to lateral side</p>	<p>With your nondominant hand, gently pull down the lower lid of the affected eye using the thumb or two fingers to expose the conjunctival sac. Gently rest the dominant hand on the patient's forehead and dispense a drop approximately ½ inch above the sac. If a cream or ointment is being administered, evenly apply a thin ribbon of the ointment along the inside edge of the lower eyelid on the conjunctiva, moving from the medial to lateral side.</p>	12/28/2023																																								
157	<p>4.33 Site, Angle, and Needle Selection for Injections</p> <table border="1" data-bbox="226 587 1008 1110"> <thead> <tr> <th>TYPE</th> <th>COMMON SITES OF INJECTIONS</th> <th>ANGLE OF INJECTION</th> <th>NEEDLE SIZE</th> <th>NEEDLE LENGTH</th> </tr> </thead> <tbody> <tr> <td>Subcutaneous (SC)</td> <td>Upper, outer arm; abdominal region; and the upper thigh</td> <td>45 degrees</td> <td>25 to 31 G</td> <td>5/8 to 3/4 inch</td> </tr> <tr> <td>Intradermal (ID)</td> <td>Forearm</td> <td>5 to 15 degrees</td> <td>25 to 26 G</td> <td>3/8 to 1/2 inch</td> </tr> <tr> <td>Intramuscular (IM)</td> <td>Deltoid, ventrogluteal, vastus lateralis</td> <td>90 degrees</td> <td>18 to 25 G</td> <td>5/8 to 3 inches</td> </tr> </tbody> </table>	TYPE	COMMON SITES OF INJECTIONS	ANGLE OF INJECTION	NEEDLE SIZE	NEEDLE LENGTH	Subcutaneous (SC)	Upper, outer arm; abdominal region; and the upper thigh	45 degrees	25 to 31 G	5/8 to 3/4 inch	Intradermal (ID)	Forearm	5 to 15 degrees	25 to 26 G	3/8 to 1/2 inch	Intramuscular (IM)	Deltoid, ventrogluteal, vastus lateralis	90 degrees	18 to 25 G	5/8 to 3 inches	<p>4.33 Site, Angle, and Needle Selection for Injections</p> <table border="1" data-bbox="1041 587 1822 1110"> <thead> <tr> <th>TYPE</th> <th>COMMON SITES OF INJECTIONS</th> <th>ANGLE OF INJECTION</th> <th>NEEDLE SIZE</th> <th>NEEDLE LENGTH</th> </tr> </thead> <tbody> <tr> <td>Subcutaneous (SC)</td> <td>Upper, outer arm; abdominal region; and the upper thigh</td> <td>45 degrees</td> <td>23 to 25 G</td> <td>5/8 inch</td> </tr> <tr> <td>Intradermal (ID)</td> <td>Forearm</td> <td>5 to 15 degrees</td> <td>25 to 27 G</td> <td>1/4 to 1/2 inch</td> </tr> <tr> <td>Intramuscular (IM)</td> <td>Deltoid, ventrogluteal, vastus lateralis</td> <td>90 degrees</td> <td>22 to 25 G</td> <td>1 to 1 1/2 inches</td> </tr> </tbody> </table>	TYPE	COMMON SITES OF INJECTIONS	ANGLE OF INJECTION	NEEDLE SIZE	NEEDLE LENGTH	Subcutaneous (SC)	Upper, outer arm; abdominal region; and the upper thigh	45 degrees	23 to 25 G	5/8 inch	Intradermal (ID)	Forearm	5 to 15 degrees	25 to 27 G	1/4 to 1/2 inch	Intramuscular (IM)	Deltoid, ventrogluteal, vastus lateralis	90 degrees	22 to 25 G	1 to 1 1/2 inches	10/30/2023
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229	<p>3. Based on your understanding of CLIA-waived test, summarize at least five examples an MA would commonly perform, along with their function.</p> <p>Pregnancy testing: Urine is screened for the presence of human chorionic gonadotropin (hCG) antibodies. Rapid strep testing: Throat swabs are obtained to screen for group B streptococcus. ...</p>	<p>3. Based on your understanding of CLIA-waived test, summarize at least five examples an MA would commonly perform, along with their function.</p> <p>Pregnancy testing: Urine is screened for the presence of human chorionic gonadotropin (hCG) antibodies. Rapid strep testing: Throat swabs are obtained to screen for group A streptococcus. ...</p>	12/28/2023																																								

268	<p>2. Which of the following time periods is captured by one large square containing five small boxes on the EKG?</p> <p>A. 0.04 seconds B. 0.08 seconds C. 0.12 seconds D. 0.20 seconds</p> <p>A is correct. Each small horizontal square represents 0.04 seconds. Large squares are identified by darker lines and include five small boxes horizontally and vertically.</p>	<p>2. Which of the following time periods is captured by one large square containing five small boxes on the EKG?</p> <p>A. 0.04 seconds B. 0.08 seconds C. 0.12 seconds D. 0.20 seconds</p> <p>D is correct. Each small horizontal square represents 0.04 seconds. Large squares are identified by darker lines and include five small boxes horizontally and vertically representing 0.20 seconds.</p>	11/21/2023
271	<p>3. A medical assistant is placing electrodes for an EKG on a patient's left upper arm due to a left below-the-elbow amputation. On which of the following should the MA place the leg leads?</p> <p>A. Lower legs, proximal to the ankle B. Upper thighs C. Over kneecaps D. On hips</p> <p>B is correct. The limb electrodes should be placed on fleshy areas of the skin and within the same general vicinity on each limb.</p>	<p>3. A medical assistant is placing electrodes for an EKG on a patient's left upper arm due to a left below-the-elbow amputation. On which of the following should the MA place the right arm lead?</p> <p>A. Right lower arm B. Right upper arm C. Right elbow D. Right shoulder</p> <p>B is correct. The arm electrodes should be placed symmetrically on each arm.</p>	11/21/2023