During physical assessment of a newborn, which of the following should be palpated first?

1. brachial pulses  
2. femoral pulses  
3. liver

In sequencing a newborn examination, which of the following should be performed last?

1. examination of the hips  
2. eliciting a Moro reflex  
3. palpating the abdomen

Which of the following tests are incorporated into the examination of the newborn eye?

1. accommodation  
2. cover/uncover  
3. red reflex

For optimal results, the stethoscope tubing should be no longer than _____ inches.

1. 10  
2. 12

Fetal exposure to which of the following increases the risk of cardiac malformation?

1. anticonvulsants  
2. antidepressants  
3. antihypertensives

In an otherwise normal newborn, the most common reason for a large head is:

1. benign familial megalencephaly  
2. Dandy-Walker malformation  
3. hypothyroidism

According to data from Pediatrix Medical Group, the percentage of 25-week gestational age infants who survive without severe intraventricular hemorrhage or retinopathy of prematurity is:

1. 9  
2. 28  
3. 48

Using Nägeli's rule, the due date of a woman whose last menstrual period began on April 14, 2009, would be _____, 2010.

1. January 21  
2. February 28  
3. March 14

In the first trimester of pregnancy, the most sensitive fetal biometric parameter for determining gestational age is:

1. biparietal diameter  
2. crown-rump length  
3. femur length

After reading the book and taking the test, the participant will be able to:

1. List the principles of physical assessment relevant to the newborn.  
2. Outline the salient information that should be recorded in the newborn history.  
3. Describe the components of a gestational age assessment.  
4. Describe the elements of a complete newborn physical assessment.  
5. Outline the components of a newborn behavioral assessment.  
6. Discuss an approach to the assessment of the dysmorphic infant.
10. In the second trimester, the most accurate estimation of gestational age is obtained by measuring:
   a. abdominal circumference
   b. femur length
   c. head circumference

11. In a <37-week gestational age infant, the New Ballard Score is accurate to within _____ days.
   a. 2–4
   b. 5–7
   c. 8–10

12. For optimal accuracy in determining gestational age, the anterior vascular capsule of the lens (AVCL) should be examined before _____ hours of life.
   a. 48
   b. 72
   c. 96

13. Atrophy of the AVCL is accelerated in the presence of maternal:
   a. diabetes
   b. hypertension
   c. renal disease

14. To obtain a score of 4 on the arm recoil test, the neonate’s fist should:
   a. come in contact with the face
   b. reach the level of the shoulder
   c. pass the level of the elbow

15. To elicit the scarf sign, the newborn’s:
   a. arm is pulled across the chest
   b. hand is flexed toward the wrist
   c. leg is raised toward the ear

16. The development of lanugo peaks at _____ weeks gestation.
   a. 24–26
   b. 28–30
   c. 32–34

17. In a human fetus, the eyes open at _____ weeks gestation.
   a. 22–24
   b. 24–26
   c. 26–28

18. In the majority of male newborns, both testes are palpable in the inguinal canal by _____ weeks gestation.
   a. 32
   b. 34
   c. 36

19. Conditions known to cause asymmetric intrauterine growth restriction include:
   a. chromosomal disorders
   b. intrauterine infection
   c. maternal preeclampsia

20. Melanocytes are found in which tissue layer?
   a. dermis
   b. epidermis
   c. subcutaneous

21. In the term newborn, the thickness of the epidermis is _____ mm.
   a. 0.01–0.05
   b. 0.06–0.1
   c. 0.1–0.5

22. Sweat glands reach adult function levels by _____ years of age.
   a. 1–2
   b. 2–3
   c. 3–4

23. Lanugo first appears at _____ weeks gestation.
   a. 20
   b. 24
   c. 28

24. A macule is best described as a/an:
   a. elevated lesion of <1 cm
   b. flat discolored lesion <1 cm
   c. small hemorrhagic spot

25. A 1.5 cm raised lesion with well defined borders would best be described as (a):
   a. nodule
   b. plaque
   c. vesicle

26. Circumoral cyanosis should be investigated if it persists beyond _____ hours of age.
   a. 12
   b. 18
   c. 24

27. A newborn with a hematocrit >65 percent is at increased risk of developing:
   a. feeding intolerance
   b. hypoglycemia
   c. renal failure

28. Persistent cutis marmorata is commonly seen in which of the following syndromes?
   a. Down
   b. Sturge-Weber
   c. Turner

29. A truncal rash consisting of small pustules or vesicles with erythematous bases best describes:
   a. erythema toxicum
   b. herpes
   c. pustular melanosis

30. Milia are small cysts containing:
   a. eosinophils
   b. leukocytes
   c. sebaceous secretions

31. Obstructed sweat glands result in the development of:
   a. miliaria
   b. scalded skin syndrome
   c. sebaceous gland hyperplasia

32. Hyperpigmented macules are most commonly found over the:
   a. buttocks and flanks
   b. face
   c. hands and feet
33. Neonatal pustular melanosis is most common in infants of what ethnic background?
   a. African American    c. Native American
   b. Asian

34. Melanocytic nevi should be followed closely for the development of:
   a. bleeding    c. neurofibromatosis
   b. malignant melanoma

35. Which of the following may be a marker for tuberous sclerosis?
   a. ash leaf macules    c. pigmented nevi
   b. café au lait patches

36. Subcutaneous fat necrosis is associated with:
   a. hypercalcaemia    b. malignant skin changes    c. skin breakdown and infection

37. Which of the following statements applies to a nevus simplex? It usually:
   a. fades after 2 years    b. grows as the child grows    c. grows initially then involutes

38. Sturge-Weber syndrome is characterized by port wine nevi in areas innervated by the ______ nerve.
   a. facial    c. vagus
   b. trigeminal

39. Strawberry hemangiomas are more common in which infants? Those who:
   a. have been growth-restricted    b. have mothers with diabetes    c. are born prematurely

40. A cavernous hemangioma associated with platelet sequestration is termed _____ syndrome.

41. A rash in the groin that is moist and red with small white or yellow pustules should be treated with an:
    a. antibiotic agent    c. antiviral agent
    b. antifungal agent

42. The mortality rate of neonates with disseminated herpes is ____ percent.
    a. 20    c. 40
    b. 30

43. Infants with bullous skin eruptions and peeling skin should be treated with an agent effective against which of the following?
    a. Klebsiella    b. Pseudomonas    c. Staphylococcus aureus

44. Aplasia cutis congenita is characteristic of trisomy _____.
    a. 13    c. 21
    b. 18

45. To accurately measure an infant’s head circumference, the tape measure should be placed 1–2 cm above the:
   a. glabellar space    c. outer canthus of the eye
   b. helix of the ear

46. The average head circumference in a neonate of 40 weeks gestation is ____ cm.
    a. 33    c. 37
    b. 35

47. Which of the following is associated with macrocephaly?
    a. hypothyroidism    c. osteogenesis imperfecta
    b. maternal diabetes

48. The metopic suture separates the:
    a. frontal bones    c. parietal bones
    b. frontal and parietal bones

49. The anterior fontanel is usually larger in infants of what racial background?
    a. African American    c. Hispanic
    b. Asian

50. Fontanel size is correctly determined by measuring:
    a. diagonally    c. vertically
    b. horizontally

51. Fontanel fullness is most accurately determined when the infant is:
    a. side-lying    c. supine
    b. sitting

52. An enlarged anterior fontanel may be seen in infants with:
    a. congenital adrenal insufficiency    b. hypothyroidism    c. phenylketonuria

53. Auscultation of the fontanel should be performed on infants with multiple:
    a. hemangiomas    c. port wine stains
    b. petechiae

54. The occipital and parietal bones are separated by the _____ suture.
    a. coronal    c. sagittal
    b. lambdoidal

55. In Caucasian infants, the size of the posterior fontanel is normally ____ cm.
    a. 0.5    c. 1
    b. 0.7
56. The presence of a third fontanel is a feature found in ____ syndrome.
   a. Down        c. Turner
   b. Sturge-Weber

57. Brachycephaly results from premature fusion of which sutures?
   a. coronal        c. squamosal
   b. sagittal

58. Side-to-side head flattening, common in premature infants, is known as:
   a. craniosynostosis       c. plagiocephaly
   b. dolichocephaly

59. Macewen's sign is elicited in newborns with (a):
   a. cephalhematoma        c. depressed skull fracture
   b. craniotabes

60. Subgaleal hemorrhage is most commonly seen with what type of delivery?
   a. cesarean        c. vacuum-assisted
   b. forceps-assisted

61. Damage to the facial nerve most commonly affects innervation of the muscles around the:
   a. eyes        c. lips
   b. forehead

62. In non-Asians, epicanthal folds usually disappear by _____ years of age.
   a. six        c. ten
   b. eight

63. A single continuous eyebrow may be a feature of what syndrome?
   a. Cornelia de Lange       c. Klinefelter
   b. cri du chat

64. White specks around the iris may be a marker for ____ syndrome.
   a. Down        c. Turner
   b. Edward

65. An ocular finding common to osteogenesis imperfecta is:
   a. blue sclera        c. ptosis
   b. coloboma

66. Findings associated with fetal alcohol syndrome include:
   a. cleft palate        c. smooth philtrum
   b. micrognathia

67. Causes of macroglossia include:
   a. Down syndrome        c. Robin sequence
   b. hypothyroidism

68. The most common cause of a neck mass in a newborn is:
   a. cystic hygroma        c. torticollis
   b. goiter

69. In newborns, acrocyanosis is an expected finding for _____ hours after birth.
   a. 12        c. 48
   b. 24

70. In newborns, the primary muscle(s) of respiration is the:
   a. diaphragm        c. pectoralis
   b. intercostals

71. Compared to adults, the diaphragm in newborns is:
   a. less distensible        c. more concave
   b. located lower in the chest

72. The presence of seesaw respirations in newborns is suggestive of:
   a. airway obstruction        c. poor lung compliance
   b. neurologic injury

73. A vascular ring should be considered in a newborn with retractions on inspiration in which of the following areas?
   a. intercostal        c. suprasternal
   b. subcostal

74. Apnea is considered present when bradycardia or color changes accompany pauses in breathing of more than _____ seconds.
   a. 10        c. 20
   b. 15

75. In considering total pulmonary resistance, the contribution of the nasal passages is _____ percent.
   a. 25        c. 50
   b. 33

76. Causes of tracheal deviation include the presence of:
   a. atelectasis        c. pneumonia
   b. pneumomediastinum

77. In a normally grown newborn, head circumference exceeds the average chest circumference by _____ cm.
   a. 1        c. 3
   b. 2

78. Dwarfism is associated with which of the following chest shapes?
   a. barrel        c. flattened
   b. bell

79. Findings in Marfan syndrome include:
   a. flared lower ribs        c. pulmonary hyperplasia
   b. pectus excavatum
80. Absence of the pectoralis major muscle is a feature of _____ syndrome.
   a. Möbius 
   b. Poland 
   c. prune belly

81. The breast bud in a full-term infant is usually _____ cm.
   a. 0.25–0.5 
   b. 0.5–0.75 
   c. 0.75–1

82. An infant who presents with lymphedema and widely-spaced nipples should be investigated for:
   a. CHARGE association 
   b. Robin sequence 
   c. Turner syndrome

83. Accessory nipples are more common in which ethnic group?
   a. African American 
   b. Asian 
   c. Caucasian

84. Snuffles are a feature of infections caused by:
   a. Chlamydia trachomatis 
   b. Neisseria gonorrhoeae 
   c. Treponema pallidum

85. Fine crackles are breath sounds characteristic of:
   a. pneumonia 
   b. respiratory distress syndrome 
   c. transient tachypnea

86. Fracture of the clavicle occurs in _____ percent of term deliveries.
   a. 0.9–1.8 
   b. 1.9–2.9 
   c. 3.0–3.9

87. Rachitic rosary is a term used to describe a clinical feature of:
   a. clavicular fracture 
   b. pneumothorax 
   c. rickets

88. Transillumination of the newborn's chest is more likely to yield a false negative result in the presence of:
   a. chest wall edema 
   b. lung consolidation 
   c. pallor

89. During high-frequency ventilation, musical breath sounds may be indicative of:
   a. air leak 
   b. excessive ventilator pressure 
   c. secretions

90. Compared to the general population, the risk of congenital heart disease (CHD) in infants born to mothers with diabetes mellitus is _____ times greater.
   a. 1–3 
   b. 2–4 
   c. 3–5

91. Infants born to women with systemic lupus erythematosus should be assessed for the presence of:
   a. congenital heart block 
   b. cardiac septal defects 
   c. supraventricular tachycardia

92. The risk of CHD in infants born to mothers with CHD is _____ percent.
   a. 5–10 
   b. 10–15 
   c. 15–20

93. Maternal use of lithium is associated with which of the following heart defects in offspring?
   a. atrial septal defect 
   b. coarctation of the aorta 
   c. tetralogy of Fallot

94. Ventricular outflow tract defects are more common following intrauterine exposure to:
   a. alcohol 
   b. hydantoin 
   c. retinoic acid

95. What percentage of infants with extracardiac anomalies has CHD?
   a. 15 
   b. 25 
   c. 35

96. The optimal location for determining the presence of central cyanosis is the:
   a. lips 
   b. mucous membranes 
   c. tongue

97. Polycythemia is defined by a central hematocrit value that exceeds _____ percent.
   a. 60 
   b. 65 
   c. 70

98. For cyanosis to be visible, how many grams of unbound hemoglobin must be present?
   a. 5 
   b. 6 
   c. 7

99. In a healthy newborn, capillary refill time is normally less than _____ seconds.
   a. 3–4 
   b. 4–5 
   c. 5–6

100. The presence of edema only in the hands or feet is a finding in:
    a. congenital adrenal hypoplasia 
    b. renal failure 
    c. Turner syndrome

101. Lesions that result in bounding peripheral pulses include:
    a. aortic stenosis 
    b. truncus arteriosus 
    c. ventricular septal defect
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer Options</th>
</tr>
</thead>
</table>
| 102. During transition to extrauterine life, right ventricular prominence results in a visible impulse seen at the: | a. fifth intercostal space at the midaxillary line  
  b. lower left sternal border  
  c. second left intercostal space |
| 103. In neonates, the apex of the heart is normally palpated in the _____ intercostal space. | a. third  
  b. fourth  
  c. fifth |
| 104. Which part of the examiner's hand is most sensitive in identifying vibratory sensations? | a. fingertips  
  b. palm  
  c. ulnar surface |
| 105. Which of the following findings is associated with volume overload? | a. heave  
  b. tap  
  c. thrill |
| 106. Thrills are commonly found in which of the following conditions? | a. tetralogy of Fallot  
  b. transposition of the great vessels  
  c. truncus arteriosus |
| 107. Defects involving the pulmonic valves would be best auscultated over which landmark? | a. left sternal border  
  b. midclavicular line  
  c. right sternal border |
| 108. Congestive heart failure is likely to occur when supraventricular tachycardia presents for more than _____ hours. | a. 12  
  b. 24  
  c. 48 |
| 109. Which drug is associated with the development of premature atrial beats in newborns? | a. caffeine  
  b. furosemide  
  c. morphine |
| 110. The first heart sound (S1) is best heard over the _____ area. | a. aortic  
  b. mitral  
  c. pulmonic |
| 111. By 48 hours of age, up to 80 percent of newborns will have which of the following heart sounds? | a. split S2  
  b. S3  
  c. S4 |
| 112. Ejection clicks are heard in the presence of a/an: | a. atrial septal defect  
  b. patent ductus arteriosus  
  c. pulmonic stenosis |
| 113. What percentage of newborns has a systolic ejection murmur? | a. 36  
  b. 56  
  c. 76 |
| 114. Which type of innocent murmur radiates to the axilla and back? | a. pulmonary flow  
  b. Still's  
  c. systolic ejection |
| 115. Congestive heart failure should be suspected when the newborn's liver extends more than _____ cm below the right costal margin. | a. 1  
  b. 2  
  c. 3 |
| 116. A newborn infant has the following systolic blood pressure results: left upper arm 54, left leg 32, right arm 56, and right leg 35. This result: | a. is normal  
  b. likely represents coarctation of the aorta  
  c. is seen in persistent pulmonary hypertension |
| 117. What percentage of infants born following a history of polyhydramnios has major structural malformations? | a. 10-20  
  b. 20-30  
  c. 30-40 |
| 118. The risk of gastrointestinal abnormalities increases to 90 percent when the largest vertical pocket of amniotic fluid in the uterus is > _____ cm. | a. 12  
  b. 14  
  c. 16 |
| 119. In the presence of polyhydramnios, the infant should be assessed for the presence of: | a. esophageal atresia  
  b. hiatal hernia  
  c. imperforate anus |
| 120. A large amount of amniotic fluid in the stomach at delivery is suggestive of: | a. duodenal atresia  
  b. malrotation  
  c. pyloric stenosis |
| 121. In neonates, the abdominal circumference normally begins to exceed head circumference at _____ weeks gestational age. | a. 34  
  b. 36  
  c. 38 |
| 122. Characteristic findings in congenital diaphragmatic hernia include an abdomen that is: | a. discolored  
  b. distended  
  c. scaphoid |
### Physical Assessment of the Newborn

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer Options</th>
</tr>
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<tbody>
<tr>
<td>123. Nonbilious vomiting is characteristic of an obstruction located in:</td>
<td>a. duodenum c. large bowel</td>
</tr>
<tr>
<td>124. Meconium ileus is a characteristic finding in which of the following conditions?</td>
<td>a. cystic fibrosis c. prune belly syndrome</td>
</tr>
<tr>
<td>125. Malrotation must be ruled out in an infant presenting with:</td>
<td>a. abdominal distention c. fresh blood in the stool</td>
</tr>
<tr>
<td>126. The presence of a midline ridge between the sternum and umbilicus is:</td>
<td>a. associated with diaphragmatic hernia</td>
</tr>
<tr>
<td>127. Umbilical hernias are more common in which group of neonates?</td>
<td>a. African American c. Caucasian</td>
</tr>
<tr>
<td>128. An infant with a thick umbilical cord may have (be):</td>
<td>a. trisomy 13 or 21 c. postmature</td>
</tr>
<tr>
<td>129. Infants with unusual bulges in the umbilical cord should be investigated for the presence of:</td>
<td>a. gastroschisis c. patent urachus</td>
</tr>
<tr>
<td>130. What percentage of neonates is born with a single umbilical artery?</td>
<td>a. 1 c. 3</td>
</tr>
<tr>
<td>131. Which of the following is a feature of omphalitis?</td>
<td>a. persistent clear drainage from the cord</td>
</tr>
<tr>
<td>132. A patent urachus connects the umbilicus to the:</td>
<td>a. bladder c. kidney</td>
</tr>
<tr>
<td>133. Omphaloceles are seen in infants with which of the following syndromes?</td>
<td>a. Beckwith-Wiedemann c. Sturge-Weber</td>
</tr>
<tr>
<td>134. Bladder extrophy occurs:</td>
<td>a. more commonly in females</td>
</tr>
<tr>
<td>135. An absent anal wink is suggestive of:</td>
<td>a. central nervous system abnormality</td>
</tr>
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<td>136. In a newborn, bowel sounds are heard every ____ seconds.</td>
<td>a. 10–15 c. 20–25</td>
</tr>
<tr>
<td>137. To effectively detect the edge of the liver in a newborn, the abdomen should be depressed to ____ cm.</td>
<td>a. 0.5–1 c. 2–3</td>
</tr>
<tr>
<td>138. The length of a normal term newborn kidney is ____ cm.</td>
<td>a. 2.5–3 c. 4.5–5</td>
</tr>
<tr>
<td>139. Weak femoral pulses are characteristic of which cardiac anomaly?</td>
<td>a. interrupted aortic arch</td>
</tr>
<tr>
<td>140. When comparing newborn blood pressures in the upper and lower extremities, the difference should normally be less than ____ mmHg.</td>
<td>a. 10</td>
</tr>
<tr>
<td>141. Which of the following is suggestive of oligohydramnios?</td>
<td>a. barrel-shaped chest</td>
</tr>
<tr>
<td>142. In addition to renal anomalies, VACTERL association includes:</td>
<td>a. anal atresia c. omphalocele</td>
</tr>
<tr>
<td>143. To facilitate abdominal palpation, the examiner could:</td>
<td>a. extend the infant's hips</td>
</tr>
<tr>
<td>144. The presence of rugae on the scrotum suggests a gestational age of at least ____ weeks.</td>
<td>a. 34</td>
</tr>
<tr>
<td>145. The normal size of a testis in a term infant is ____ cm.</td>
<td>a. 1.2–1.4</td>
</tr>
</tbody>
</table>
146. In term newborns, the average length of the stretched penis is _____ cm.
   a. 1.5  c. 3.5
   b. 2.5

147. If present, pseudomenses may persist for up to _____ days.
   a. 7  c. 14
   b. 10

148. The most common renal causes of an abdominal mass in the newborn are multicystic kidneys and _____.
   a. duplicated collection systems
   b. hydronephrosis
   c. polycystic kidneys

149. The most common midline abdominal mass in newborns is a:
   a. distended bladder  c. volvulus
   b. malrotation

150. Which of the following has been shown to cause fetal ascites?
   a. posterior urethral valves  c. prune belly syndrome
   b. Potter syndrome

151. Prune belly syndrome occurs:
   a. equally in both sexes
   b. more commonly in females
   c. more commonly in males

152. Which of the following is a variant of bladder extrophy?
   a. epispadias  c. posterior urethral valves
   b. hypospadias

153. Which of the following is a feature of cloacal extrophy?
   a. bifid bladder  c. renal hypoplasia
   b. gastroschisis

154. What percentage of newborns with a single umbilical artery has renal abnormalities?
   a. 5  c. 7
   b. 6

155. A newborn with clear discharge from the umbilical cord should be checked for the presence of:
   a. ileal-umbilical fistula  c. patent urachus
   b. omphalitis

156. The majority of infants with hypospadias also have:
   a. cryptorchidism  c. posterior urethral valves
   b. foreskin malformation

157. Epispadias is always accompanied by:
   a. chordee  c. renal abnormalities
   b. micropenis

158. Which of the following procedures should not be performed on newborns with hypospadias?
   a. circumcision  c. urinary catheterization
   b. orchiopexy

159. Which of the following predisposes a neonate to develop priapism?
   a. hypospadias  c. urinary tract infections
   b. polycythemia

160. What percentage of term neonates has an undescended testis?
   a. 2.7  c. 4.7
   b. 3.7

161. Spontaneous testicular descent rarely occurs after _____ months of age.
   a. 7  c. 9
   b. 8

162. In a newborn with testicular torsion, irreversible damage to the gonad occurs when the period of ischemia exceeds _____ hours.
   a. 12  c. 24
   b. 18

163. The average length of a newborn infant is _____ cm.
   a. 43–48  c. 53–58
   b. 48–53

164. In comparing head circumference to length, which of the following formulas provides a general guide? Head circumference in cm equals:
   a. length – 10 cm  c. length + 0.5 + 10 cm
   b. length × 0.5 – 10 cm

165. Which of the following statements accurately describes the relationship between head circumference and chest circumference?
   a. chest and head circumference are about the same for nine months
   b. the difference between head and chest circumference is greater in more immature infants
   c. term infants usually have a chest circumference that is 2–4 cm greater than head circumference

166. A foot that is bent outwards away from the body is said to be in what position?
   a. dorsiflexion  c. varus
   b. valgus

167. In term infants, the ratio of upper body length to lower body length should be less than:
   a. 1.7:1  c. 1.9:1
   b. 1.8:1
168. In a term newborn at rest, mild tremors in the extremities are normal for up to _____ days after birth.
   a. 2  
   b. 4  
   c. 6  

169. To be considered normal, a newborn’s neck should rotate _____ degrees.
   a. 40  
   b. 60  
   c. 80  

170. Which of the following should be suspected in a newborn with an asymmetric Moro reflex?
   a. fractured clavicle  
   b. motor neuron lesion  
   c. intracranial bleeding  

171. In a newborn suspected of having trisomy 18, which of the following would you expect to see?
   a. macrodactyly  
   b. overlapping index and third fingers  
   c. simian crease  

172. Lateral deformities of the spine can usually be attributed to:
   a. birth injury  
   b. in utero position  
   c. lordosis  

173. Normal newborns usually have a hip flexion contracture of _____ degrees.
   a. 30  
   b. 35  
   c. 40  

174. In performing an Ortolani maneuver, the examiner attempts to:
   a. assess the ease with which the hip can be dislocated  
   b. move the femoral head out of the acetabulum  
   c. reduce a dislocated femoral head  

175. When counseling the parent of a newborn with internal tibial torsion, the nurse should be aware that:
   a. an early orthopedic consultation is recommended  
   b. delayed crawling is common  
   c. spontaneous recovery is expected  

176. Klippel-Feil syndrome involves defects of the _____ vertebrae.
   a. cervical  
   b. thoracic  
   c. lumbar  

177. Which muscle is affected in congenital torticollis?
   a. deltoid  
   b. sternocleidomastoid  
   c. supraspinatus  

178. Infants with congenital scoliosis should be investigated for the presence of associated:
   a. congenital heart disease  
   b. hydrocephalus  
   c. renal abnormalities

179. Sprengel’s deformity affects the:
   a. clavicle  
   b. scapula  
   c. sternum

180. Which of the following is a feature commonly associated with absence of the clavicle?
   a. large fontanels  
   b. low-set ears  
   c. pectus excavatum

181. Erb’s palsy results from a neurologic injury at the level of:
   a. C1–C4  
   b. C5–C6  
   c. C7–T1

182. Klumpke’s palsy presents with paralysis of the _____ arm.
   a. entire  
   b. lower  
   c. upper

183. What percentage of infants born in breech position has developmental dysplasia of the hip (DDH)?
   a. 16–25  
   b. 26–35  
   c. 36–45

184. DDH is more common in which of the following ethnic groups?
   a. African American  
   b. Asian  
   c. Native American

185. The risk of developing metatarsus adductus is increased in the presence of:
   a. maternal diabetes  
   b. multiple gestation  
   c. polyhydramnios

186. Infants of which ethnic group are at highest risk of being born with talipes equinovarus?
   a. Asian  
   b. Caucasian  
   c. Polynesian

187. Streeter dysplasia most commonly affects the:
   a. craniofacial structure  
   b. lower extremities  
   c. upper extremities

188. Polydactyly is more common in infants of what ethnic background?
   a. African American  
   b. Caucasian  
   c. Native American

189. Presence of a café au lait spot measuring more than 1.5 cm is a marker for:
   a. Klippel-Trahalwney syndrome  
   b. Marfan syndrome  
   c. neurofibromatosis

190. Infants with Sturge-Weber syndrome have:
   a. arteriovenous malformations  
   b. dysplastic neural tumors  
   c. progressive neural degeneration

299
191. Which of the following skin findings is a feature of tuberous sclerosis?
   a. areas of depigmentation
   b. port wine nevi on the eyelids
   c. strawberry hemangioma

192. Which of the following is a sign of prenatal exposure to selective serotonin reuptake inhibitors (SSRIs)? A cry that is:
   a. catlike
   b. high-pitched

193. Approximately 5 percent of infants with a brachial plexus injury also have an:
   a. fractured clavicle
   b. intracranial hemorrhage

194. Isolated bilateral facial weakness is characteristic of:
   a. Bell’s palsy
   b. congenital myasthenia gravis
   c. Möbius syndrome

195. Widened sutures caused by abnormal ossification are seen in:
   a. infants of diabetic mothers
   b. intrauterine growth restriction
   c. large-for-gestational age infants

196. Transillumination with a flashlight of a normal neonate’s skull should yield a glow beyond the flashlight of no more than _____ cm.
   a. 2
   b. 3
   c. 4

197. Infants with facial hemangiomas should be examined for the presence of:
   a. bruit
   b. craniosynostosis
   c. microcephaly

198. Which tendon reflex is most readily elicited after birth?
   a. biceps
   b. triceps
   c. patellar

199. Postural tone is tested with the:
   a. observation of truncal tone
   b. pull-to-sit maneuver
   c. scarf sign maneuver

200. Newborns with Werdnig-Hoffmann disease have weakness of the:
   a. entire body
   b. extremities
   c. face and neck

201. The Galant reflex is tested when the neonate is in what position?
   a. sitting up
   b. supine
   c. ventral suspension

202. The withdrawal reflex should be present in most infants beginning in what week of gestation?
   a. 27
   b. 28
   c. 29

203. In a normal newborn, turning the head to the left results in the eyes:
   a. deviating to the left
   b. deviating to the right
   c. remaining midline

204. Examination of the nasolabial creases helps to assess the intactness of which cranial nerve?
   a. III
   b. V
   c. VII

205. Hoarseness or stridor may be a sign of damage to which cranial nerve?
   a. accessory
   b. glossopharyngeal
   c. vagus

206. Moderate encephalopathy is characterized by:
   a. hyperalertness
   b. hypotonia
   c. jitteriness

207. In neonates with severe encephalopathy, the doll’s eye response usually disappears during the first _____ hours after birth.
   a. 1–12
   b. 12–24
   c. 24–72

208. In term infants, perinatal asphyxia most often causes injury to what part of the brain?
   a. occipital horns
   b. parasagittal
   c. periventricular

209. Abnormalities seen in infants following prenatal exposure to SSRIs include:
   a. feeding intolerance
   b. hypoglycemia
   c. sleep disturbances

210. The most common location for an encephalocele is in which bone?
   a. occipital
   b. parietal
   c. temporal

211. Dermal sinuses are usually seen in which region of the spine?
   a. lumbar
   b. thoracic
   c. sacral

212. Which area of the dura separates the cerebral hemispheres from the cerebellum?
   a. falx
   b. tentorium
   c. transverse sinus
213. Traumatic separation of the joint between the squamous and lateral bones is referred to as:
   a. craniotabes  
   b. occipital diastasis
   c. opisthotonos

214. A unilateral nonreactive pupil is a sign of:
   a. falx laceration
   b. rupture of the superficial cerebral vein
   c. tentorial laceration

215. The most common cause of posthemorrhagic hydrocephalus in premature infants is:
   a. inflammation of the arachnoid villi
   b. obstruction of the aqueduct of Sylvius
   c. scarring of the germinal matrix

216. By the time an infant is 72 hours of age, what percentage of PV-IVHs is detectable on ultrasound?
   a. 70
   b. 80
   c. 90

217. Stemming from delivery, the most common contributing factor in subgaleal hemorrhage is:
   a. forceps use
   b. shoulder dystocia
   c. vacuum extraction

218. The NBAS tool scores infants on _____ behavioral items.
   a. 18
   b. 25
   c. 28

219. The primary focus of the Nursing Model of the Brazelton scale is to:
   a. evaluate the neonate’s developmental age
   b. identify infants needing referral to a developmental specialist
   c. promote parent-infant attachment

220. The focus of Als’ Assessment of Preterm Infants’ Behavior (APIB) is to assess the premature infant’s ability to:
   a. cope within an NICU environment
   b. reach developmental milestones
   c. respond to parental interactions

221. Lester and Tronick’s NICU Network Neurobehavioral Scale (NNNS) was designed to assess infants born prematurely and _____ infants.
   a. asphyxiated
   b. drug-exposed
   c. growth-restricted

222. The Anderson Behavioral State Scale (ABSS) was developed for use with:
   a. infants <3 months of age
   b. premature infants
   c. term infants

223. According to the ABSS, which of the following scores represents sleep states optimal for growth and recovery?
   a. 1–2
   b. 3–4
   c. 5–6

224. Irregular respirations are characteristic of which newborn state?
   a. active alert
   b. drowsiness
   c. quiet alert

225. Hand-to-mouth movements are an example of:
   a. behavioral organization
   b. motor organization
   c. time-out signals

226. Sensory threshold refers to the infant’s:
   a. ability to hear
   b. level of tolerance for stimuli
   c. responsiveness to auditory and visual stimuli

227. In a newborn, approach signs include which of the following?
   a. dilated pupils
   b. finger splaying
   c. rapid breathing

228. An infant who stops turning to a shaking rattle is demonstrating:
   a. avoidance behaviors
   b. habituation
   c. sensory threshold

229. A term infant normally can track an object _____ degrees in a horizontal plane.
   a. 30
   b. 60
   c. 90

230. The pupillary reflex normally develops at _____ weeks gestation.
   a. 30
   b. 32
   c. 34

231. Premature infants are usually capable of tolerating soft sounds by _____ weeks gestational age.
   a. 26
   b. 28
   c. 30

232. A neonate who stops feeding every time someone walks by is said to have an increased level of:
   a. adaptability
   b. distractibility
   c. responsiveness

233. The percentage of infants born with a major birth defect each year is______.
   a. 1
   b. 2
   c. 3

234. Which of the following birth defects is known to be inheritable?
   a. choanal atresia
   b. cleft palate
   c. gastroschisis
235. Thalassemia is more common in people of what ethnic background?
   a. French-Canadian  c. Northern European
   b. Mediterranean

236. Infants with hypothyroidism may display which of the following characteristics?
   a. large fontanels  c. vascular nevi
   b. peripheral lymphedema

237. A webbed neck is a finding in which of the following genetic syndromes?
   a. Edward  c. Turner
   b. Marfan

238. An infant with asymmetric crying facies is at increased risk for abnormalities of the:
   a. brain  c. kidneys
   b. heart

239. A cloudy cornea is a sign of:
   a. glaucoma  c. retinoblastoma
   b. osteogenesis imperfecta

240. In neonates with a single umbilical artery, what percentage has other major anomalies?
   a. 20  c. 60
   b. 40

241. What percentage of the normal population has a simian crease?
   a. 5–10  c. 15–20
   b. 10–15

242. Developmental dysplasia of the hip is an example of:
   a. a deformation  c. dysplasia
   b. a disruption

243. Retinoblastoma is an example of a disorder that is:
   a. autosomal dominant  c. X-linked recessive
   b. autosomal recessive

244. Which of the following is statistically true for parents who each carry a gene for an autosomal recessive disorder?
   a. 25 percent of their children will have the disease
   b. 50 percent of their children will have the disease
   c. 50 percent of their sons will have the disease

245. Which of the following statements is true of mitochondrial disorders?
   a. female offspring of affected women will always manifest the disease
   b. females rarely pass the disorder to their offspring
   c. males do not pass the disorder to their children

246. Congenital anomalies associated with Down syndrome include:
   a. Dandy-Walker malformation
   b. imperforate anus
   c. omphalocele

247. What percentage of infants with trisomy 18 survives beyond one year of age?
   a. 0–5  c. 10–15
   b. 5–10

248. Presenting signs of Turner syndrome include:
   a. duodenal atresia  c. rocker-bottom feet
   b. edema of the extremities

249. Infants with DiGeorge syndrome have a hypoplastic or absent:
   a. adrenal gland  c. thymus gland
   b. corpus callosum

250. The most common cause of death in infants with Potter sequence is:
   a. pulmonary hypoplasia  c. sepsis
   b. renal failure

251. The incidence of Robin sequence is estimated to be 1 in _____ live births.
   a. 4,000  c. 8,000
   b. 6,000

252. The C in CHARGE association refers to:
   a. cataracts  c. congenital heart defects
   b. coloboma

253. The most common heart defect seen in newborns with fetal alcohol exposure is:
   a. coarctation of the aorta  c. ventricular septal defect
   b. pulmonary atresia

254. Features of fetal valproate syndrome include:
   a. hypospadias  c. microcephaly
   b. low-set ears

255. Facial expressions seen in “cry face” include:
   a. brow bulge  c. slack mouth
   b. nasal flaring

256. Physiologic indicators scored on the Premature Infant Pain Profile (PIPP) scale include oxygen saturation and:
   a. blood pressure  c. respiratory rate
   b. heart rate

257. The PIPP scores an infant on gestational age, behavioral state, and how many other parameters?
   a. three  c. five
   b. four
258. Pharmacologic treatment is recommended when PIPP scores reach:
   a. 8  c. 12
   b. 10

259. Parameters assessed in the CRIES postoperative pain assessment tool score include:
   a. gestational age  c. posture
   b. need for oxygen

260. The CRIES tool was originally developed for infants of _____ weeks gestational age.
   a. 32–36  c. 40+
   b. 37–40

261. The CRIES tool is more difficult to use in infants who are:
   a. already on oxygen  c. receiving pain medication
   b. premature

262. The physiologic parameter assessed by the Neonatal Infant Pain Scale (NIPS) is:
   a. breathing pattern  c. oxygen saturation
   b. heart rate

263. Which of the following parameters has been shown to be the most sensitive indicator of pain in newborns?
   a. cry  c. physiologic changes
   b. facial expression

264. In ELBW infants (<1,000 g), which of the following is least sensitive in assessing pain?
   a. cry  c. physiologic parameters
   b. facial expression

265. According to a consensus panel of pediatric pain experts, the most sensitive indicators of pain in neurologically impaired infants include:
   a. body movements  c. increased vital signs
   b. facial grimace

266. Studies of infants exposed to SSRIs found that, compared to unexposed infants, exposed infants had fewer:
   a. arm and leg movements  c. crying episodes
   b. changes in heart rate

267. Which of the following indicators of pain is not seen on a neonatal abstinence scoring tool?
   a. agitation  c. facial grimacing
   b. crying

268. Chorionic villus sampling is normally done at _____ weeks of gestation.
   a. 8–10  c. 12–14
   b. 10–12

269. Which is the earliest week from the last menstrual period that pregnancy can be detected by ultrasound?
   a. 5  c. 9
   b. 7

270. A nuchal fold thickness of more than _____ mm is a marker for Down syndrome.
   a. 1  c. 3
   b. 2

271. Increased fetal fibronectin in vaginal secretions predicts:
   a. chromosomal anomalies
   b. fetal hydrops
   c. preterm labor

272. In cases of severe uteroplacental insufficiency, fetal diastolic blood flow is:
   a. equivocal  c. reversed
   b. increased

273. During a nonstress test, fetal well-being is indicated by an increase in heart rate of at least _____ beats per minute.
   a. 5  c. 15
   b. 10

274. Triple testing includes measurements of α-fetoprotein, unconjugated estriol, and:
   a. fetal hemoglobin
   b. human chorionic gonadotropin
   c. prostaglandin

275. Low levels of placental lactogen can be found in pregnancies complicated by maternal:
   a. diabetes mellitus  c. hypertension
   b. erythroblastosis

276. Well-controlled blood sugar is indicated by an HgbA1c level that is less than _____ percent.
   a. 8  c. 10
   b. 9

277. Decreased fetal heart rate variability is commonly seen following administration of _____ to the mother.
   a. labetalol  c. steroids
   b. magnesium sulfate

278. A sinusoidal fetal heart rate pattern is an indicator of fetal:
   a. anemia  c. sepsis
   b. heart block
ANSWER FORM: Physical Assessment of the Newborn, 4th Edition

Please completely fill in the circle of the one best answer using a dark pen.

Questions are numbered vertically.

1. a. b. c. b. b. c. c. c. b. b. b. b. b. c. c. b. b. b. b. c. c. c. c. c. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c. b. b. b. b. c. c. c. c. c. c. c. c. c. c. c. c.
Test

Physical Assessment of the Newborn

Evaluation Directions

Thank you for taking the time to assist us in evaluating the effectiveness of this course. Using the scale below, darken the circles corresponding to your responses. If an item is not applicable, leave it blank.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Neutral</td>
<td>Agree</td>
<td>Strongly Agree</td>
</tr>
</tbody>
</table>

Objectives:
I am able to:

1. List the principles of physical assessment relevant to the newborn. 1 2 3 4 5
2. Outline the salient information that should be recorded in the newborn history. 1 2 3 4 5
3. Describe the components of a gestational age assessment. 1 2 3 4 5
4. Describe the elements of a complete newborn physical assessment. 1 2 3 4 5
5. Outline the components of a newborn behavioral assessment. 1 2 3 4 5
6. Discuss an approach to the assessment of the dysmorphic infant. 1 2 3 4 5

Presentation

1. The material presented is relevant to my practice. 1 2 3 4 5
2. The questions on the test reflected the content of the book. 1 2 3 4 5
3. The book content was comprehensive. 1 2 3 4 5
4. The test directions were clear. 1 2 3 4 5
5. I perceive the education level of this course to be:
   1 = Basic; 2 = Intermediate; 3 = Advanced 1 2 3
6. How long did it take you to complete the course? ____ hours ____ minutes
7. In what level unit do you practice? I___ II___ III___

I am a ☐ staff nurse ☐ NNP ☐ nurse manager ____________________ other (please state)

What subjects would you like to see offered for CE courses? __________________________________________________________
____________________________________________________________________________________________________________________
____________________________________________________________________________________________________________________

Additional comments: ________________________________________________________________
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