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MULTIPLE CHOICE

1. In the "anatomic position," the palms of the hands are facing:
   a. backward.
   b. forward.
   c. up.
   d. down.

   ANS: B

2. A plane passing through the body parallel with the midsagittal plane is termed:
   a. coronal.
   b. sagittal.
   c. axial.
   d. oblique.

   ANS: B

3. A plane passing vertically through the body from side to side is termed:
   a. oblique.
   b. sagittal.
   c. coronal.
   d. horizontal.

   ANS: C

4. Any plane passing through the body at right angles to its longitudinal axis is termed:
   a. coronal.
   b. oblique.
   c. sagittal.
   d. horizontal.

   ANS: D

5. All of the following are located in the thoracic cavity *except*:
   a. trachea.
   b. spleen.
   c. lungs.
   d. esophagus.

   ANS: B

6. All of the following are located in the abdominal cavity *except*:
   a. kidneys.
   b. stomach.
   c. rectum.
   d. pancreas.

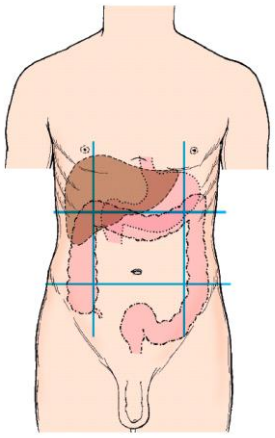
   ANS: C

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7. Into how many regions is the abdomen divided?
   a. Two
   b. Four
   c. Six
   d. Nine

   ANS: D

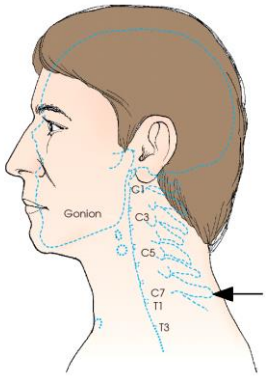
8. The lower, center region on this figure is termed the:



   a. epigastrium.
   b. lumbar.
   c. inguinal.
   d. hypogastrium.

   ANS: D

9. The external landmark indicated by the arrow in this figure is the:



   a. mastoid tip.
   b. vertebra prominens.
   c. gonion.
   d. transverse process.

   ANS: B

10. T9 and T10 are located at the level of the:
   a. sternal angle.
   b. xiphoid process.

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c. jugular notch.
d. vertebra prominens.

ANS: B

11. L4 and L5 are located at the level of the:
a. costal margin.
b. superior iliac spine.
c. umbilicus.
d. superior aspect of the iliac crests.

ANS: D

12. S1 and S2 are located at the level of the:
a. costal margin.
b. umbilicus.
c. superior aspect of the iliac crests.
d. anterior superior iliac spines (ASISs).

ANS: D

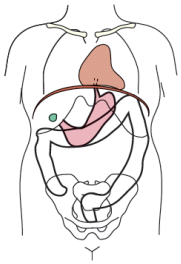
13. All of the following are types of body habitus, *except*:
a. atrophic.
b. sthenic.
c. asthenic.
d. hypersthenic.

ANS: A

14. Approximately what percentage of the population has a sthenic body habitus?
a. 5%
b. 10%
c. 35%
d. 50%

ANS: D

15. Which body habitus is shown in this figure?



a. Hypersthenic
b. Hyposthenic
c. Asthenic
d. Atrophic

ANS: A

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16. The least-occurring body habitus is the:
    a. hyposthenic.
    b. hypersthenic.
    c. asthenic.
    d. atrophic.

    ANS: B

17. The adult skeleton is composed of how many bones?
    a. 185
    b. 200
    c. 206
    d. 208

    ANS: C

18. Bones are composed of an outer layer of compact bony tissue called the:
    a. compact bone.
    b. periosteum.
    c. spongy tissue.
    d. medullary canal.

    ANS: A

19. Long bones have a central cylindrical cavity called the:
    a. meniscus.
    b. periosteum.
    c. medullary cavity.
    d. spongy tissue.

    ANS: C

20. How many specific types of synovial joints are there?
    a. Three
    b. Four
    c. Five
    d. Six

    ANS: D

21. Some synovial joints contain synovial fluid–filled sacs outside the main joint cavity called:
    a. bursae.
    b. menisci.
    c. ligaments.
    d. fibrous capsules.

    ANS: A

22. How many saddle joints are there in the body?
    a. One
    b. Two
    c. Three
    d. Four

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ANS: A

23. Some synovial joints contain a thick cushioning pad of fibrocartilage called the:
    a. bursae.
    b. meniscus.
    c. cartilage.
    d. fibrous capsule.

    ANS: B

24. Which specific type of joint allows multiaxial movement?
    a. Pivot
    b. Gliding
    c. Ellipsoid
    d. Ball and socket

    ANS: D

25. After birth, a separate bone begins to develop at the *ends* of long bones. Each end is called the:
    a. diaphysis.
    b. epiphysis.
    c. epiphyseal line.
    d. epiphyseal plate.

    ANS: B

26. A rounded process at an articular extremity is called a:
    a. condyle.
    b. malleolus.
    c. tubercle.
    d. styloid.

    ANS: A

27. A hole in a bone for transmission of blood vessels and nerves is called a:
    a. groove.
    b. foramen.
    c. fissure.
    d. facet.

    ANS: B

28. A small, smooth-surfaced process for articulation of bones is called a:
    a. condyle.
    b. coronoid.
    c. facet.
    d. tuberosity.

    ANS: C

29. A term that means the same as *anterior* is:

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a. plantar.
b. distal.
c. dorsal.
d. ventral.

ANS: D

30. The term that may also be used to refer to the posterior surface of the body is:
a. dorsal.
b. ventral.
c. volar.
d. plantar.

ANS: A

31. The term that refers to parts away from the head of the body, or angling the central ray toward the feet is:
a. caudad.
b. cephalad.
c. medial.
d. proximal.

ANS: A

32. The term that refers to parts nearer the point of attachment, or origin, is:
a. distal.
b. proximal.
c. caudad.
d. cephalad.

ANS: B

33. The term used to describe the sole of the foot is:
a. ventral.
b. posterior.
c. plantar.
d. dorsal.

ANS: C

34. A large, rounded, elevated process on a bone is called a(n):
a. malleolus.
b. epicondyle.
c. tubercle.
d. tuberosity.

ANS: D

35. All of the following terms are used to describe "body positions," *except*:
a. upright.
b. axial.
c. prone.
d. LPO.

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ANS: B

36. Which of the following is an x-ray “projection”?
    a. RPO
    b. LAO
    c. Dorsoplantar
    d. Recumbent

    ANS: C

37. Which of the following is an x-ray “position”?
    a. Mediolateral
    b. Craniocaudal
    c. Orbitoparietal
    d. Trendelenburg

    ANS: D

38. Which of the following is an x-ray “projection”?
    a. Tangential
    b. Lordotic
    c. Right anterior oblique (RAO)
    d. Right lateral decubitus

    ANS: A

39. The path of the central ray stated as it exits the x-ray tube, travels through the patient and strikes the IR defines:
    a. radiography.
    b. decubitus.
    c. position.
    d. projection.

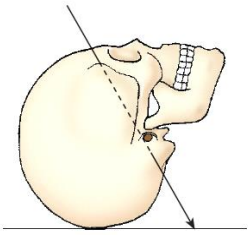
    ANS: D

40. If the central ray enters the anterior body surface and exits the posterior body surface, the x-ray projection is termed:
    a. PA.
    b. AP.
    c. lateral.
    d. axiolateral.

    ANS: B

41. The x-ray projection identified in this figure is:

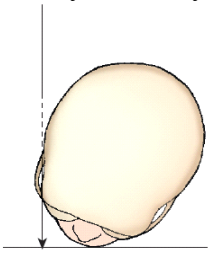
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a. AP.
b. PA.
c. AP axial.
d. AP oblique.

ANS: C

42. Identify the x-ray projection illustrated in this figure.



a. Tangential
b. PA axial oblique.
c. Orbitoparietal
d. Parietoorbital

ANS: A

43. When there is longitudinal angulation of the central ray with the long axis of the body, the projection will always use the term:
a. oblique.
b. axial.
c. lateral.
d. decubitus.

ANS: B

44. Which of the following terms are used both as an x-ray projection and a body position?
1. Axial
2. Oblique
3. Lateral
a. 1 and 2
b. 1 and 3
c. 2 and 3
d. 1, 2, and 3

ANS: C

45. The term used to describe the act of placing the patient appropriately for a radiographic examination is:

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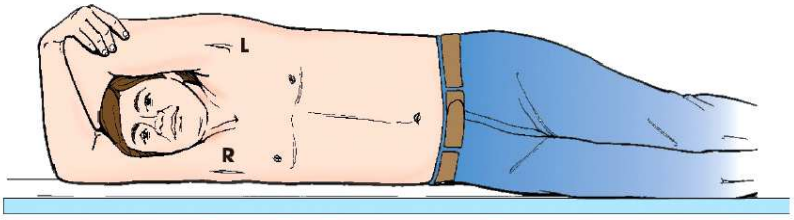
a. supine.
b. recumbent.
c. projection.
d. position.

ANS: D

46. Which of the following terms is used to describe a patient placed “lying on the back”?
a. Supine
b. Prone
c. Lateral
d. Recumbent

ANS: A

47. What is the patient position illustrated in this figure?



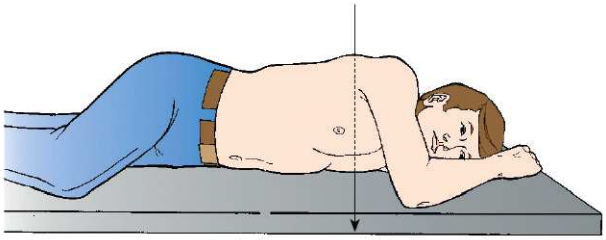
a. Dorsal recumbent
b. Right lateral recumbent
c. Left lateral decubitus
d. Trendelenburg

ANS: B

48. Oblique positions are always named according to the side of the patient that is:
a. closest to the x-ray tube.
b. the source of pathology.
c. closest to the IR.
d. farthest from the IR.

ANS: C

49. The patient in this figure is placed in which position?

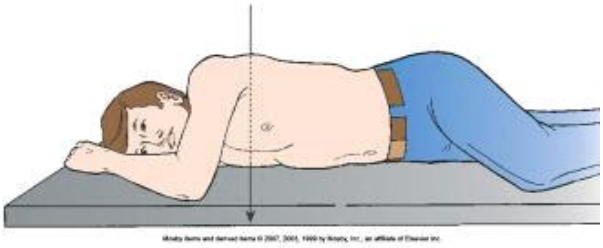


a. RPO
b. LPO
c. RAO
d. LAO

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ANS: D

50. The body position depicted below results in which x-ray projection?



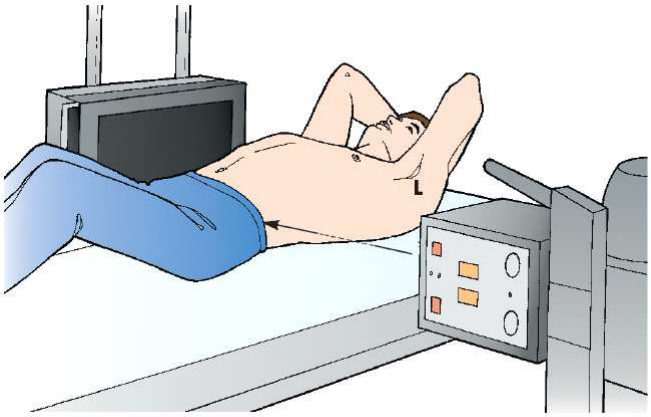
a. PA oblique
b. AP oblique
c. Recumbent
d. Mediolateral

ANS: A

51. Which of the following positioning terms indicates that the patient is lying down and the central ray is horizontal?
a. Lateral
b. Decubitus
c. Recumbent
d. Mediolateral

ANS: B

52. The patient in this figure is placed in which of the following positions?

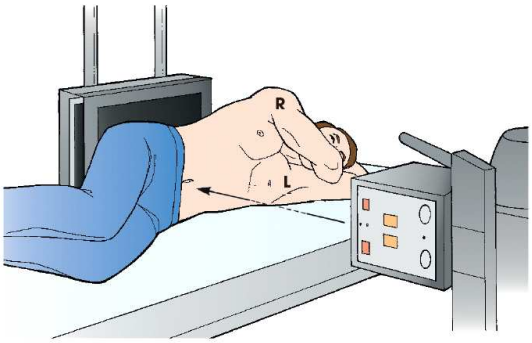


a. Left lateral decubitus
b. Right lateral decubitus
c. Dorsal decubitus
d. Ventral decubitus

ANS: C

53. The x-ray projection shown in this figure is:

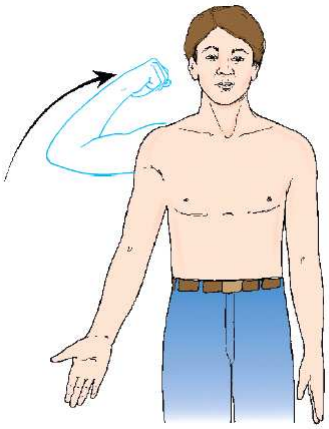
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a. AP.
b. PA.
c. right lateral.
d. right lateral decubitus.

ANS: A

54. The movement shown in this figure is:



a. adduction.
b. abduction.
c. extension.
d. flexion.

ANS: D

55. Movement of a part away from the central axis of the body or body part is termed:
a. adduction.
b. abduction.
c. extension.
d. flexion.

ANS: B

56. Forced or excessive extension of a limb or part is termed:
a. eversion.
b. inversion.
c. hyperextension.
d. hyperflexion.

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ANS: C

57. Rotation of the arm toward the midline of the body from the anatomic position is termed:
    a. pronation.
    b. supination.
    c. lateral rotation.
    d. medial rotation.

    ANS: D

58. If the foot is turned inward at the ankle joint, the body movement is termed:
    a. inversion.
    b. eversion.
    c. flexion.
    d. extension.

    ANS: A

59. Movement of a part toward the central axis of the body is termed:
    a. abduction.
    b. adduction.
    c. medial rotation.
    d. lateral rotation.

    ANS: B

60. Turning the forearm so that the palm of the hand is up is termed:
    a. pronation.
    b. supination.
    c. abduction.
    d. adduction.

    ANS: B

61. A club-shaped process on a bone is called a:
    a. coronoid.
    b. trochanter.
    c. tuberosity.
    d. malleolus.

    ANS: D

62. The term that refers to a part on the opposite side of the body is
    a. distal.
    b. proximal.
    c. ipsilateral.
    d. contralateral.

    ANS: D

63. Which of the following terms is plural?
    a. Calculi

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b. Labium
c. Vertebra
d. Bronchus

ANS: A

64. Study of the bones of the body is known as:
a. physiology.
b. radiology.
c. osteology.
d. orthopedics.

ANS: C

65. Which of the following planes divides the body into superior or inferior portions?
a. Horizontal
b. Oblique
c. Midsagittal
d. Midcoronal

ANS: A

66. Which plane specifically divides the body into *equal* right and left halves?
a. Axial
b. Transverse
c. Midcoronal
d. Midsagittal

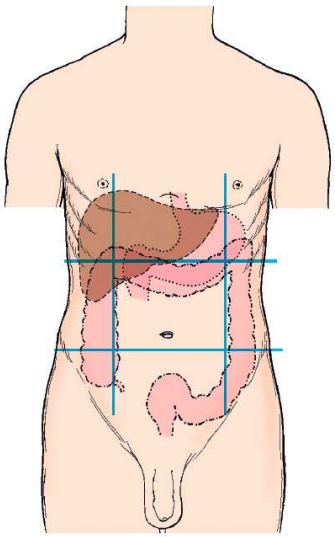
ANS: D

67. The plane that divides the body into equal posterior and anterior halves is termed:
a. horizontal.
b. longitudinal.
c. midcoronal.
d. midsagittal.

ANS: C

68. The upper, center region on this illustration is termed the:

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a. umbilical.
b. epigastrium.
c. hypogastrium.
d. hypochondrium.

ANS: B

69. The vertebra prominens is located at the level of the:
a. L2-L3.
b. L4-L5.
c. C3-C4.
d. C7-T1.

ANS: D

70. The jugular notch is located at the level of:
a. T2-T3.
b. T4-T5.
c. L2-L3.
d. L4-L5.

ANS: A

71. For which type of body habitus will the lungs be very short and wide?
a. Sthenic
b. Asthenic
c. Hypersthenic
d. Hyposthenic

ANS: C

72. For which type of body habitus will the stomach be the lowest?
a. Sthenic
b. Asthenic
c. Hypersthenic
d. Hyposthenic

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ANS: B

73. For which type of body habitus will the diaphragm be very high?
    a. Sthenic
    b. Asthenic
    c. Hyposthenic
    d. Hypersthenic

    ANS: D

74. The longest lungs will be found in which type of body habitus?
    a. Sthenic
    b. Asthenic
    c. Hyposthenic
    d. Hypersthenic

    ANS: B

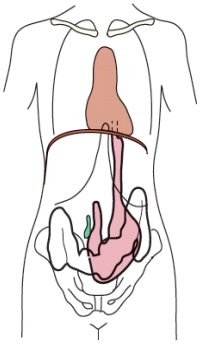
75. The lungs will be a moderate length in which body habitus?
    a. Sthenic
    b. Asthenic
    c. Hyposthenic
    d. Hypersthenic

    ANS: A

76. The stomach is positioned the highest in which type of body habitus?
    a. Sthenic
    b. Asthenic
    c. Hyposthenic
    d. Hypersthenic

    ANS: D

77. Which type of body habitus is shown in this illustration?



    a. Sthenic
    b. Asthenic
    c. Hyposthenic
    d. Hypersthenic

    ANS: B

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78. The appendicular skeleton allows the body to move in various positions. How many bones does it contain?
    a. 14
    b. 80
    c. 126
    d. 206

    ANS: C

79. Bones provide which of the following?
    1. Protection of internal organs
    2. Production of red and white blood cells
    3. Attachment for the skin and fat layers
    a. 1 and 2
    b. 1 and 3
    c. 2 and 3
    d. 1, 2, and 3

    ANS: A

80. The red marrow within bones produces _____ cells.
    1. adipose
    2. red blood
    3. white blood
    a. 1 and 2
    b. 1 and 3
    c. 2 and 3
    d. 1, 2, and 3

    ANS: C

81. What is the name of the tough, fibrous tissue that covers all bony surfaces?
    a. Endosteum
    b. Periosteum
    c. Compact bone
    d. Spongy bone

    ANS: B

82. The tissue lining the medullary cavity of bones is called the:
    a. endosteum.
    b. periosteum.
    c. trabeculae.
    d. compact bone.

    ANS: A

83. The part of the bone where muscles, tendons, or ligaments are attached is called:
    a. a foramina.
    b. the meatus.
    c. the fossa.

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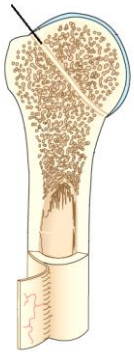
d. a tuberosity.

ANS: D

84. Near the center of all long bones is a specific opening in the periosteum called the:
a. foramen.
b. nutrient foramen.
c. medullary cavity.
d. epiphyseal plate.

ANS: B

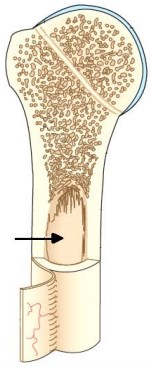
85. The area of the bone indicated by the line on this figure is the:



a. periosteum.
b. endosteum.
c. compact bone.
d. epiphyseal line.

ANS: D

86. The area of the bone indicated by the arrow on this figure is the:



a. spongy bone.
b. compact bone.
c. medullary cavity.
d. medullary cavity.

ANS: C

87. The piece of cartilage that separates the end of a developing long bone from the central shaft is called the:
a. diaphysis.

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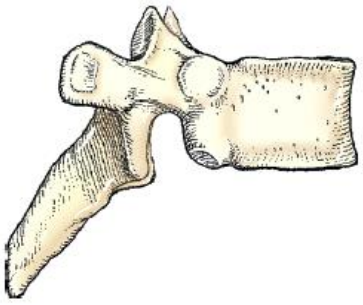
b. epiphysis.
c. epiphyseal line.
d. epiphyseal plate.

ANS: D

88. Near the age of 21, full ossification occurs between the ends and the central shaft of long bones. The moderately visible area where the bones join is called the:
a. epiphyseal line.
b. epiphyseal plate.
c. primary center of ossification.
d. secondary center of ossification.

ANS: A

89. What is the classification of the bone shown in this illustration?



a. Long
b. Short
c. Irregular
d. Sesamoid

ANS: C

90. The study of joints or articulations is known as:
a. arthrology.
b. osteology.
c. radiology.
d. radiography.

ANS: A

91. How many specific types of joints are contained within the structural classification of joints?
a. 3
b. 4
c. 6
d. 11

ANS: D

92. The syndesmosis, suture, and gomphosis joints belong to which structural joint group?
a. Hinge joints
b. Fibrous joints
c. Synovial joints

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d. Cartilaginous joints

ANS: B

93. Which structural joint group contains joints that are all freely movable?
a. Hinge joints
b. Fibrous joints
c. Synovial joints
d. Cartilaginous joints

ANS: C

94. Which specific type of joint permits only flexion and extension?
a. Hinge joints
b. Gliding joints
c. Pivot joints
d. Saddle joints

ANS: A

95. The small, rounded, elevated process on a bone is called a(n):
a. malleolus.
b. tubercle.
c. epicondyle.
d. protuberance.

ANS: B

96. A tubelike passageway running within a bone is called a:
a. fossa.
b. groove.
c. meatus.
d. foramen.

ANS: C

97. Which of the following terms refers to the covering of an organ?
a. External
b. Internal
c. Visceral
d. Parietal

ANS: C

98. Which of the following terms refers to the back part of a body or organ?
a. Ventral
b. Dorsal
c. Distal
d. Proximal

ANS: B

99. Reference toward the head of the body is termed:

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a. external.
b. proximal.
c. caudad.
d. cephalad.

ANS: D

100. The term that refers to parts *farthest* from the point of attachment, point of reference, or away from the center of the body is:
a. distal.
b. proximal.
c. caudad.
d. cephalad.

ANS: A

101. A serious fracture in which the broken bone or bones project through the skin is called a(n) _____ fracture.
a. open
b. closed
c. displaced
d. nondisplaced

ANS: A

102. A serious fracture in which the bones are not in anatomic alignment is called:
a. impacted.
b. compression.
c. displaced.
d. nondisplaced.

ANS: C

103. When a fractured bone retains its normal alignment, it is called:
a. greenstick.
b. compound.
c. displaced.
d. nondisplaced.

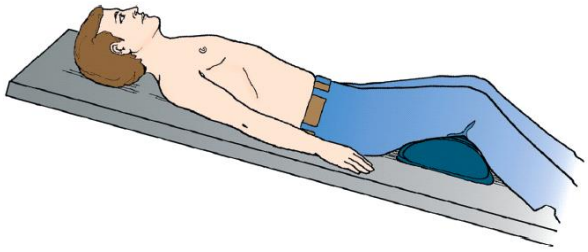
ANS: D

104. When a fractured bone is shattered into many pieces, it is called:
a. spiral.
b. transverse.
c. compression.
d. comminuted.

ANS: D

105. The body position in this illustration is:

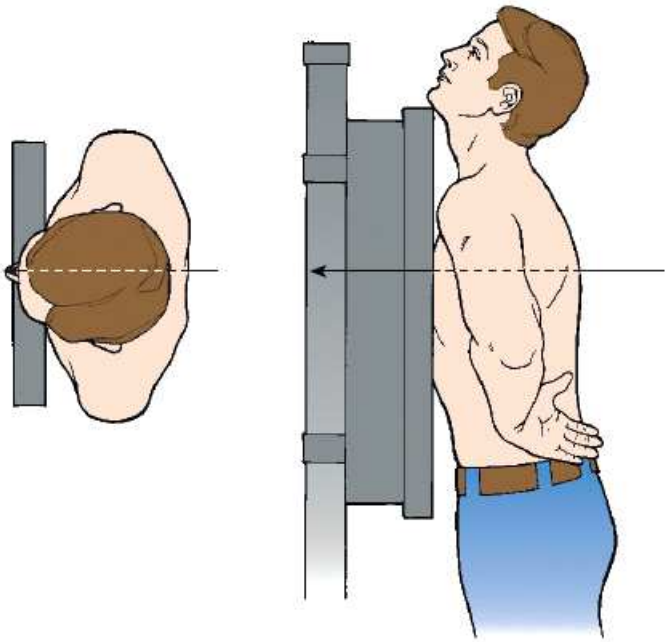
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a. prone.
b. Fowler.
c. Trendelenburg.
d. anteroposterior.

ANS: B

106. The projection shown in this illustration is:



a. AP.
b. PA.
c. AP axial.
d. PA axial.

ANS: B

107. Movement or positioning of the hand toward the radius or ulna is termed:
a. abduction.
b. eversion.
c. supination.
d. deviation.

ANS: D

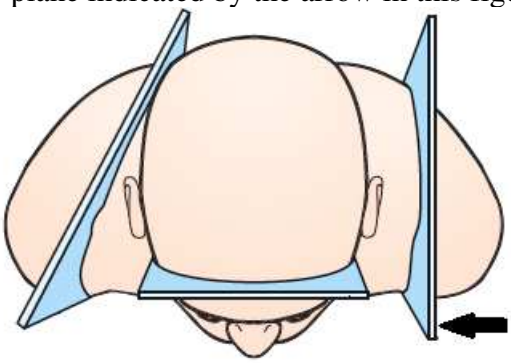
108. Tipping or slanting a body part slightly is termed:

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a. extension.
b. eversion.
c. tilting.
d. oblique.

ANS: C

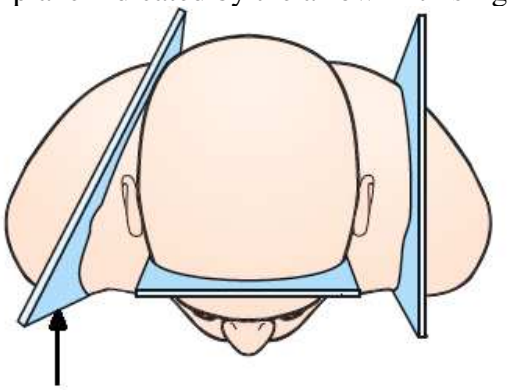
109. The plane indicated by the arrow in this figure is the:



a. sagittal.
b. coronal.
c. oblique.
d. horizontal.

ANS: A

110. The plane indicated by the arrow in this figure is the:

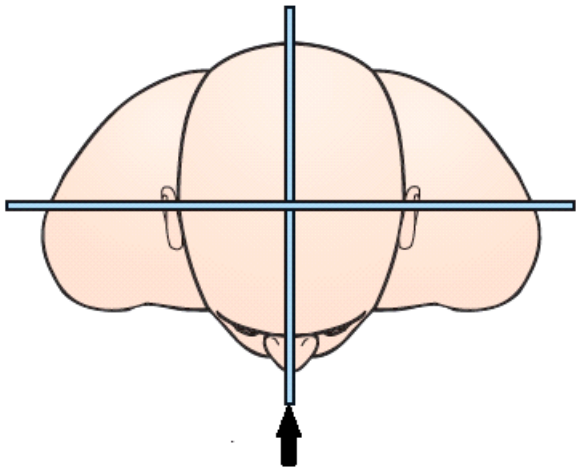


a. sagittal.
b. coronal.
c. oblique.
d. horizontal.

ANS: C

111. The body plane indicated by the arrow in this figure is the:

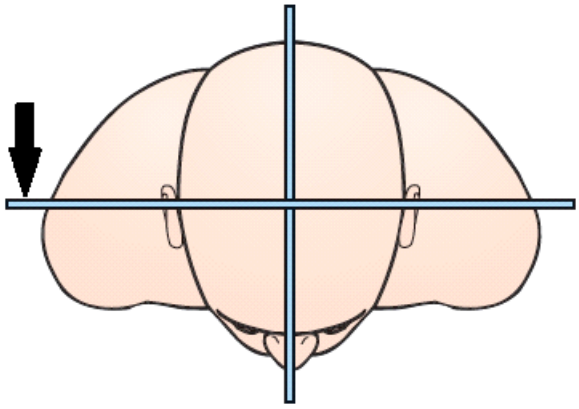
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a. midcoronal.
b. midsagittal.
c. horizontal.
d. transverse.

ANS: B

112. The body plane indicated by the arrow in this figure is the:



a. sagittal.
b. coronal.
c. midsagittal.
d. midcoronal.

ANS: D

113. When the hand is turned toward the radial side, it is termed:
a. radial deviation.
b. ulnar deviation.
c. abduction.
d. adduction.

ANS: A

114. When the hand is turned toward the ulnar side, it is termed:

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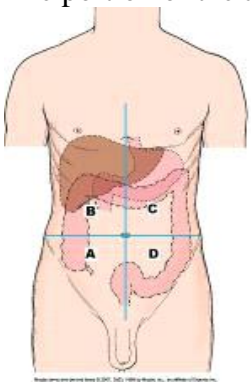
a. adduction.
b. abduction.
c. ulnar deviation.
d. radial deviation.

ANS: C

115. The largest sesamoid bone in the body is the:
a. atlas.
b. axis.
c. patella.
d. flabella.

ANS: C

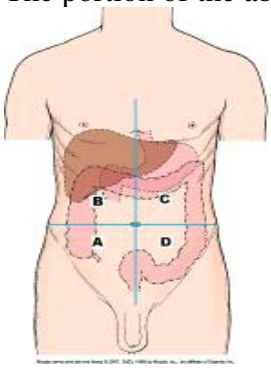
116. The portion of the abdominal cavity labeled as *D* in this figure is the _____ quadrant.



a. right upper
b. left upper
c. right lower
d. left lower

ANS: D

117. The portion of the abdominal cavity labeled as *B* in this figure is the _____ quadrant.

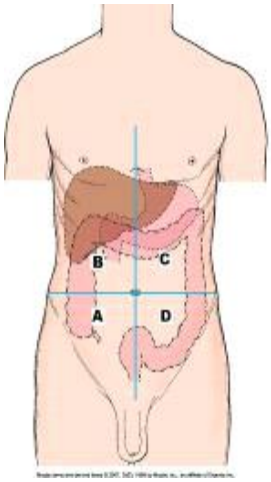


a. right upper
b. left upper
c. right lower
d. left lower

ANS: A

118. The portion of the abdominal cavity labeled as *C* in this figure is the _____ quadrant.

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a. right upper
b. left upper
c. right lower
d. left lower

ANS: B

119. In which quadrant of the abdomen is the appendix usually located?
a. RUQ
b. RLQ
c. LUQ
d. LLQ

ANS: B

120. The vertebrae located at approximately the same level as the xiphoid process are:
a. C7-T1.
b. T1-T2.
c. T9-T10.
d. L2-L3.

ANS: C

121. Which structure can be palpated by an imaging professional palpate to locate the level of the pubic symphysis?
a. Coccyx
b. ASIS
c. Iliac crest
d. Greater trochanter

ANS: D

122. Which bone classification is defined as those that develop in or near tendons?
a. Sesamoid
b. Irregular
c. Short
d. Flat

ANS: A

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MULTIPLE RESPONSE

1. Which two of the following lie in the pelvic cavity? (*Select all that apply.*)
   a. Kidneys
   b. Rectum
   c. Urinary bladder
   d. Pancreas

   ANS: B, C

2. Which two terms are used to describe x-ray "projections"? (*Select all that apply.*)
   a. AP
   b. PA axial
   c. Supine
   d. RPO

   ANS: A, B

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