

**Principles of Anatomy and Physiology**  
**Chapter 8: Appendicular Skeleton**

Multiple Choice

1. This is the anterior bone that articulates with the manubrium of the sternum at the sternoclavicular joint.
  - a. Scapula
  - b. Clavicle
  - c. Xiphoid
  - d. Sternum

Ans: b

Difficulty: medium

Feedback: 8.1

2. This bone's shape comes from the medial half of the bone being convex anteriorly and the lateral half is concave anteriorly.
  - a. Sternum
  - b. Scapula
  - c. Humerus
  - d. Clavicle

Ans: d

Difficulty: medium

Feedback: 8.1

3. Which of the following do the pelvic girdles articulate with?
  - a. Vertebral column
  - b. Humerus
  - c. Sacrum
  - d. None of the above

Ans: c

Difficulty: medium

Feedback: 8.3

4. This part of the clavicle is rounded and articulates with the manubrium of the sternum.
- Acromial end
  - Conoid tubercle
  - Sternal extremity
  - Costal tuberosity

Ans: C

Difficulty: medium

Feedback: 8.1

5. The following is/are attachment sites on the clavicle.
- Conical tuberosity
  - Acromial tuberosity
  - Costal extremity
  - All of the above
  - None of the above

Ans: E

Difficulty: medium

Feedback: 8.1

6. Why is the clavicle one of the most broken bones in the human body?
- Due to the pressure from the lungs
  - Due to the weakness of the Acromial joint
  - Due to weakness of the junction of the curves
  - Due to its position to the humerus
  - Due to rubbing against the first rib

Ans: C

Difficulty: medium

Feedback: 8.1

7. Which part of the clavicle articulates with the manubrium?



- a. A
- b. B
- c. C
- d. D
- e. None of the above

Ans: D

Difficulty: medium

Feedback: 8.1

8. Which is the only part of the clavicle that articulates with the scapula?
- a. A
  - b. B
  - c. C
  - d. D
  - e. None of the above

Ans: A

Difficulty: medium

Feedback: 8.1

9. Which part of the clavicle is an attachment site for the costoclavicular ligament?
- a. A
  - b. B

- c. C
- d. D
- e. None of the above

Ans: C  
Difficulty: medium  
Feedback: 8.1

10. Which site labeled on the diagram is considered the weakest point of the clavicle?

- a. A
- b. B
- c. C
- d. D
- e. None of the above

Ans: E  
Difficulty: hard  
Feedback: 8.1

11. Which of the following bones is located in the posterior thorax between the second and seventh vertebrae?

- a. Sternum
- b. Clavicle
- c. Pelvis
- d. Scapula
- e. None of the above

Ans: D  
Difficulty: hard  
Feedback: 8.1

12. What is found in the glenoid cavity?

- a. Subscapular fossa
- b. Acromion
- c. Supraspinous fossa
- d. Spine
- e. Humerus

Ans: E  
Difficulty: medium

Feedback: 8.2

13. This is the edge of the scapula closest to the humerus.

- a. Axillary border
- b. Medial border
- c. Infraspinous fossa
- d. Coracoid process
- e. Acromion

Ans: A

Difficulty: hard

Feedback: 8.1

14. Which is more superior on the scapula.

- a. Infraspinous fossa
- b. Supraspinous fossa
- c. Acromion
- d. Subscapular fossa
- e. Scapular notch

Ans: C

Difficulty: medium

Feedback: 8.1

15. Which of the following is found anteriorly on the scapula?

- a. A) Infraspinous fossa
- b. B) Supraspinous fossa
- c. C) Subscapular fossa
- d. Both a and b
- e. None of the above

Ans: C

Difficulty: medium

Feedback: 8.1

16. What is the scapular notch used for?

- a. A) Ligament attachment
- b. B) Tendon attachment

- c. C) Passageway for a nerve
- d. Both a and b
- e. None of the above

Ans: C

Difficulty: medium

Feedback: 8.1

17. Which of the following is fully visible with the scapula in a lateral orientation.

- a. A) Coracoid process
- b. B) Glenoid cavity
- c. C) Acromion
- d. Both a and b
- e. All of the above

Ans: E

Difficulty: medium

Feedback: 8.1

18. Which of the following is true?

- a. There are 5 carpals, 8 metacarpals and 14 phalanges.
- b. There are 8 carpals, 6 metacarpals and 14 phalanges
- c. There are 8 carpals, 5 metacarpals and 12 phalanges
- d. There are 8 carpals, 5 metacarpals and 14 phalanges
- e. There are 5 carpals, 8 metacarpals and 14 phalanges

Ans: D

Difficulty: medium

Feedback: 8.2

19. The glenohumeral joint includes:

- a. The humerus, radius and ulna
- b. The humerus and radius
- c. The humerus and clavicle
- d. The humerus and ulna
- e. The humerus and scapula

Ans: E

Difficulty: Medium

Feedback: 8.2

20. The anatomical neck of the humerus includes the:

- a. Epiphyseal line
- b. Greater tubercle
- c. Intertubercular sulcus
- d. Surgical neck
- e. Both a and c

Ans: A

Difficulty: easy

Feedback: 8.2

21. The lesser tubercle of the humerus:

- a. Articulates with the ulna
- b. Articulates with the radius
- c. Is found in the glenohumeral joint
- d. Projects anteriorly
- e. Is distal to the glenohumeral joint

Ans: D

Difficulty: hard

Feedback: 8.2

22. The deltoid tuberosity of the humerus is found:

- a. At the distal end
- b. At the proximal end
- c. At the midpoint of the shaft
- d. At the Epiphyseal plate
- e. None of the above

Ans: C

Difficulty: medium

Feedback: 8.2

23. The capitulum:

- a. A) Articulates with the head of radius
- b. B) Is a rounded knob on the lateral aspect of the humerus
- c. C) Projects anteriorly

- d. Both a and b
- e. All of the above

Ans: D

Difficulty: medium

Feedback: 8.2

24. On the proximal end of the humerus is found:

- a. The capitulum
- b. The radial fossa
- c. The trochlea
- d. All of the above
- e. None of the above

Ans: E

Difficulty: medium

Feedback: 8.2

25. This is a spool shaped surface of the humerus medial to the capitulum that articulates with the ulna.

- a. Coronoid fossa
- b. Trochlea
- c. Medial epicondyle
- d. Lateral epicondyle
- e. Lesser tubercle

Ans: B

Difficulty: medium

Feedback: 8.2

26. The medial and lateral epicondyle are found on the distal end of the humerus and are used for

- a. A) Muscle attachment
- b. B) Tendon attachment
- c. C) Groove for nerves
- d. Both a and b
- e. All of the above

Ans: B

Difficulty: medium



Feedback: 8.2

27. Which is the longer bone?

- a. Radius
- b. Phalange
- c. Clavicle
- d. Ulna
- e. 1<sup>st</sup> rib

Ans: D

Difficulty: medium

Feedback: 8.2

28. Which is found in the elbow?

- a. A) Acromion
- b. B) Surgical neck
- c. C) Olecranon
- d. Lesser tubercle
- e. Both a and c

Ans: C

Difficulty: easy

Feedback: 8.2

29. Which of the following receives the trochlea of the humerus?

- a. A) Olecranon
- b. B) Coronoid process
- c. Both a and b
- d. None of the above

Ans: D

Difficulty: easy

Feedback: 8.2

30. Which notch is found between the olecranon and coronoid process?

- a. Ulnar notch
- b. Radial notch
- c. Olecranal notch

- d. Trochlear notch
- e. Epicondyle notch

Ans: D  
Difficulty: medium  
Feedback: 8.2

31. Where does the biceps brachii muscle attach itself to the ulna?

- a. Radial tuberosity
- b. Styloid process
- c. Ulnar tuberosity
- d. Coronoid process
- e. None of the above

Ans: E  
Difficulty: hard  
Feedback: 8.2

32. The ulna and radius connect with each other at how many points?

- a. 1
- b. 2
- c. 3
- d. 4
- e. 5

Ans: C  
Difficulty: easy  
Feedback: 8.2

33. What is the function of the interosseous membrane between the ulna and radius?

- a. A) Joins the shafts of both bones
- b. B) Tendon attachment
- c. C) Site or bone repair
- d. Both a and b
- e. None of the above

Ans: D  
Difficulty: medium  
Feedback: 8.2

34. This depression is found laterally and inferior to the trochlear notch.

- a. Radial notch
- b. Elbow notch
- c. Proximal radioulnar joint
- d. Ulnar notch
- e. Styloid process

Ans: A

Difficulty: hard

Feedback: 8.2

35. The distal end of the radius articulates with how many bones of the wrist?

- a. 1
- b. 2
- c. 3
- d. 4
- e. 5

Ans: C

Difficulty: medium

Feedback: 8.2

36. How are the carpal bones arranged?

- a. 2 transverse rows of 5
- b. 2 parallel rows of 5
- c. 2 transverse rows of 4
- d. 2 parallel rows of 4
- e. Randomly

Ans: C

Difficulty: hard

Feedback: 8.2

37. Which of the following carpal bones is found most distally?

- a. Lunate
- b. Scaphoid
- c. Triquetrum
- d. Hamate

e. Pisiform

Ans: D

Difficulty: hard

Feedback: 8.2

38. What is included in the carpal tunnel?

- a. A) Pisiform
- b. B) Trapezium
- c. C) Deep fascia
- d. Both a and b
- e. All of the above

Ans: E

Difficulty: medium

Feedback: 8.2

39. The carpometacarpal joint consists of:

- a. Base of metacarpal bone and distal end of carpal bone
- b. Base of carpal bone and proximal end of metacarpal bone
- c. Head of metacarpal bone and distal end of carpal bone
- d. Head of carpal bone and proximal end of metacarpal bone
- e. None of the above

Ans: A

Difficulty: medium

Feedback: 8.2

40. How many phalanges in each hand?

- a. 10
- b. 12
- c. 14
- d. 16
- e. 20

Ans: C

Difficulty: easy

Feedback: 8.2

41. The coxal bones unite posteriorly at a joint called:

- a. Pubic symphysis
- b. Bony pelvis
- c. Pelvic girdle
- d. Acetabulum
- e. None of the above

Ans: E

Difficulty: medium

Feedback: 8.3

42. What is the function of the pelvic girdle?

- a. A) Support for vertebral column
- b. B) Attachment site for lower limbs
- c. C) Aids in height
- d. Both a and b
- e. All of the above

Ans: D

Difficulty: ease

Feedback: 8.3

43. Which of the following hipbones is superior?

- a. A) Ilium
- b. B) Pubis
- c. C) Ischium
- d. Both a and c
- e. All of the above

Ans: A

Difficulty: medium

Feedback: 8.3

44. The auricular surface

- a. Is a point of attachment for the sacroiliac ligament
- b. Is a point of attachment for tendons of the iliacus muscles
- c. Articulates with the sacrum
- d. Is a point of attachment for the gluteal muscles
- e. Articulates with the sacrum

Ans: C  
Difficulty: medium  
Feedback: 8.3

45. This is the largest foramen in the skeleton
- Acetabulum
  - Obturator foramen
  - Vertebral foramen
  - Cranial foramen
  - None of the above

Ans: B  
Difficulty: easy  
Feedback: 8.3

46. This extends superiorly and laterally along the superior ramus to merge with the arcuate line of the ilium.
- Iliopectineal line
  - Ischial tuberosity
  - Anterior gluteal line
  - Inferior gluteal line
  - Greater sciatic notch

Ans: B  
Difficulty: hard  
Feedback: 8.3

47. The hip joint is comprised of the
- A) Femur
  - B) Pelvic girdle
  - C) Acetabulum
  - Both a and b
  - Both a and c

Ans: E  
Difficulty: easy  
Feedback: 8.3

48. This is bordered by the lumbar vertebrae posteriorly, the upper portion of the hip bones laterally and the abdominal wall anteriorly.
- A) False pelvis
  - B) Greater pelvis
  - C) True pelvis
  - Both a and b
  - All of the above

Ans: D

Difficulty: hard

Feedback: 8.3

49. The pelvic inlet
- A) Is the superior opening of the pelvic cavity
  - B) Does not contain pelvic organs
  - C) Begins posteriorly at the sacral promontory
  - Both a and b
  - All of the above

Ans: A

Difficulty: medium

Feedback: 8.3

50. The female pelvis is
- Wider
  - Shallower
  - Larger in the pelvic inlet
  - Larger in the pelvic outlet
  - All of the above

Ans: E

Difficulty: easy

Feedback: 8.4

51. Each lower limb has
- 30 bones in 3 location
  - 30 bones in 4 locations
  - 32 bones in 3 locations
  - 32 bones in 3 locations

e. 34 bones in 4 locations

Ans: B

Difficulty: easy

Feedback: 8.5

52. The shaft of the femur is slightly angled

- a. Medially
- b. Laterally
- c. Anteriorly
- d. Posteriorly
- e. It is not angled at all

Ans: A

Difficulty: easy

Feedback: 8.5

53. Which ridge serves as an attachment point for tendons of the thigh muscles?

- a. A) Gluteal tuberosity
- b. B) Linea aspera
- c. C) Intertrochanteric crest
- d. Both a and b
- e. Both b and c

Ans: D

Difficulty: hard

Feedback: 8.5

54. Which is found medially?

- a. Lesser trochanter
- b. Greater trochanter
- c. Scaphoid
- d. Radius
- e. Styloid process of radius

Ans: A

Difficulty: hard

Feedback: 8.5



55. This is a bone that develops in the tendon of the quadriceps femoris muscle.

- a. Ischium
- b. Ilium
- c. Pubis
- d. Patella
- e. Femur

Ans: D

Difficulty: hard

Feedback: 8.5

56. The medial and lateral condyles of the femur fit into what part of the patella?

- a. Articular facets
- b. Patellofemoral joint
- c. Tibiofemoral joint
- d. Apex
- e. None of the above

Ans: A

Difficulty: hard

Feedback: 8.5

57. The tibiofemoral joint includes

- a. A) Femur condyles
- b. B) Condyles of the tibia
- c. C) Condyles of the fibula
- d. Both a and b
- e. All of the above

Ans: D

Difficulty: easy

Feedback: 8.5

58. The shin is also known as the

- a. Anterior border
- b. Tibial tuberosity
- c. Medial condyle
- d. Tibiofemoral joint
- e. Intercondylar eminence

Ans: A  
Difficulty: medium  
Feedback: 8.5

59. The lateral malleolus is found on the distal end of what bone?
- a. Tibia
  - b. Fibula
  - c. Tarsal
  - d. Metatarsals
  - e. None of the above

Ans: B  
Difficulty: easy  
Feedback: 8.5

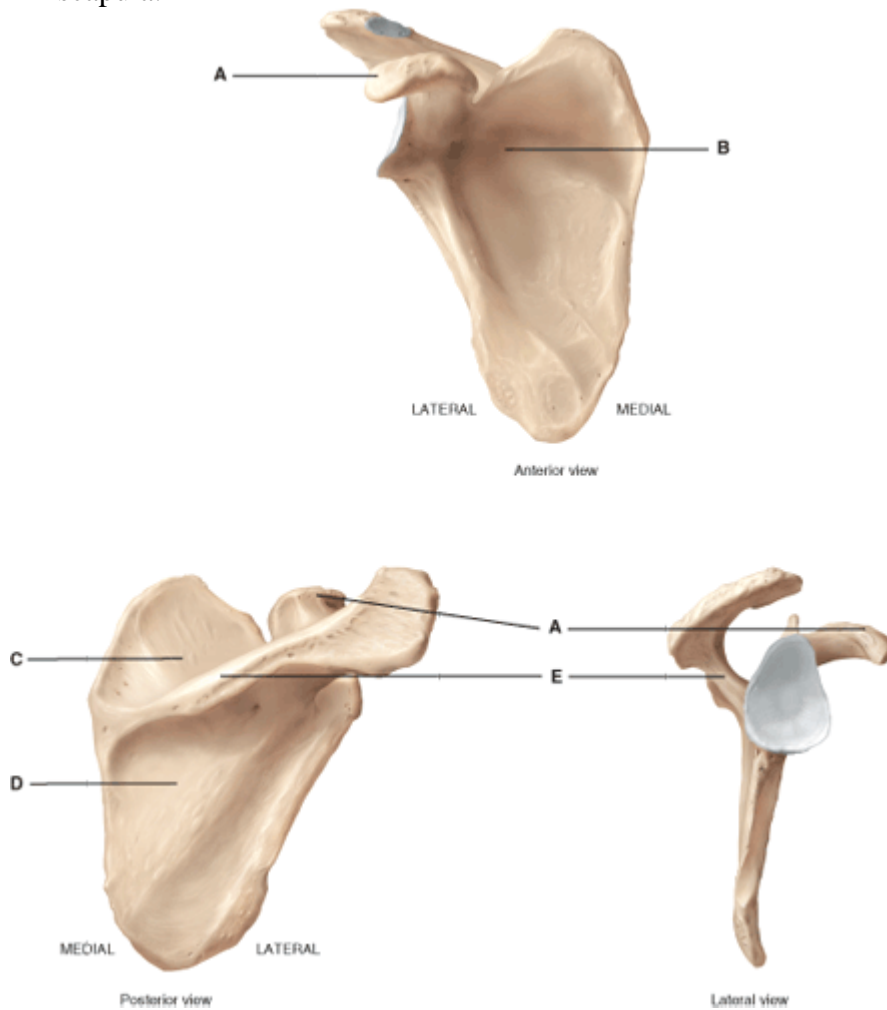
60. Which is not a tarsal bone?
- a. Talus
  - b. Calcaneus
  - c. Navicular
  - d. Cuneiform
  - e. Capitate

Ans: E  
Difficulty: easy  
Feedback: 8.5

61. Which is not found in the foot?
- a. Pollex
  - b. Hallux
  - c. Interphalangeal joints
  - d. Longitudinal arch
  - e. Transverse arch

Ans: A  
Difficulty: easy  
Feedback: 8.5

62. This is the sharp ridge called a spine that runs across the posterior surface of the scapula.



- a. A
- b. B
- c. C
- d. D
- e. E

Ans: E  
 Difficulty: medium  
 Feedback: 8.1

63. Which of the following in the diagram serve as attachment sites for tendons of the shoulder muscles?

- a. A,B
- b. B,C,D
- c. A,B,C,
- d. A,B,C,D,
- e. A,B,C,D,E

Ans: E

Difficulty: hard

Feedback: 8.1

64. Which in the diagram is the coracoid process?

- a. A
- b. B
- c. C
- d. D
- e. E

Ans: A

Difficulty: easy

Feedback: 8.1

65. Where is the Supraspinous fossa in the diagram?

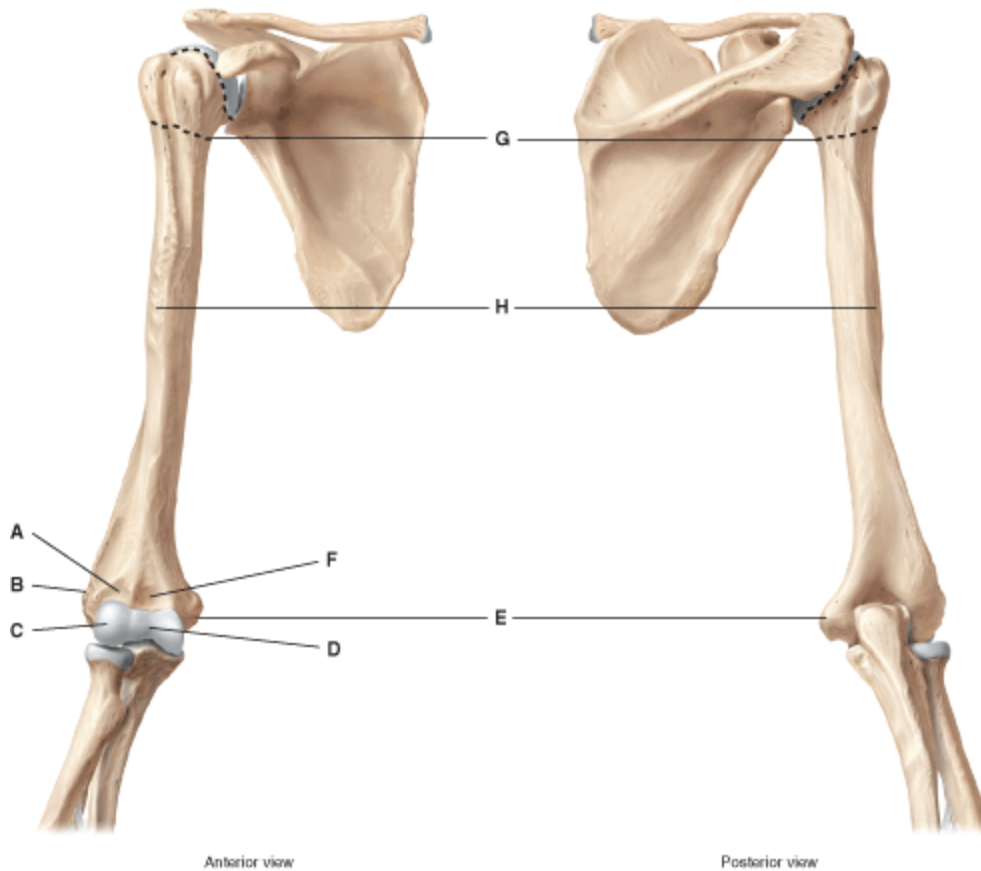
- a. A
- b. B
- c. C
- d. D
- e. E

Ans: C

Difficulty: easy

Feedback: 8.1

66. In the diagram of the humerus, which is the lateral epicondyle?



- a. A
- b. B
- c. F
- d. G
- e. H

Ans: B  
 Difficulty: medium  
 Feedback: 8.2

67. In the diagram of the humerus, this receives the head of the head of the radius when the forearm is flexed.

- a. A
- b. B
- c. C
- d. D
- e. F

Ans: A  
 Difficulty: medium

Feedback: 8.2

68. In the diagram of the humerus, where is the anatomical neck?

- a. D
- b. E
- c. F
- d. G
- e. None of the above

Ans: E

Difficulty: easy

Feedback: 8.2

69. In the diagram of the humerus, where do most of the tendons of the forearm attach?

- a. G, H
- b. H, B
- c. B, E
- d. E, H
- e. H

Ans: C

Difficulty: hard

Feedback: 8.2

70. In the diagram of the humerus, where is the olecranon fossa?

- a. A
- b. B
- c. C
- d. F
- e. None of the above

Ans: E

Difficulty: medium

Feedback: 8.2

71. In the diagram of the humerus, where is the trochlea?

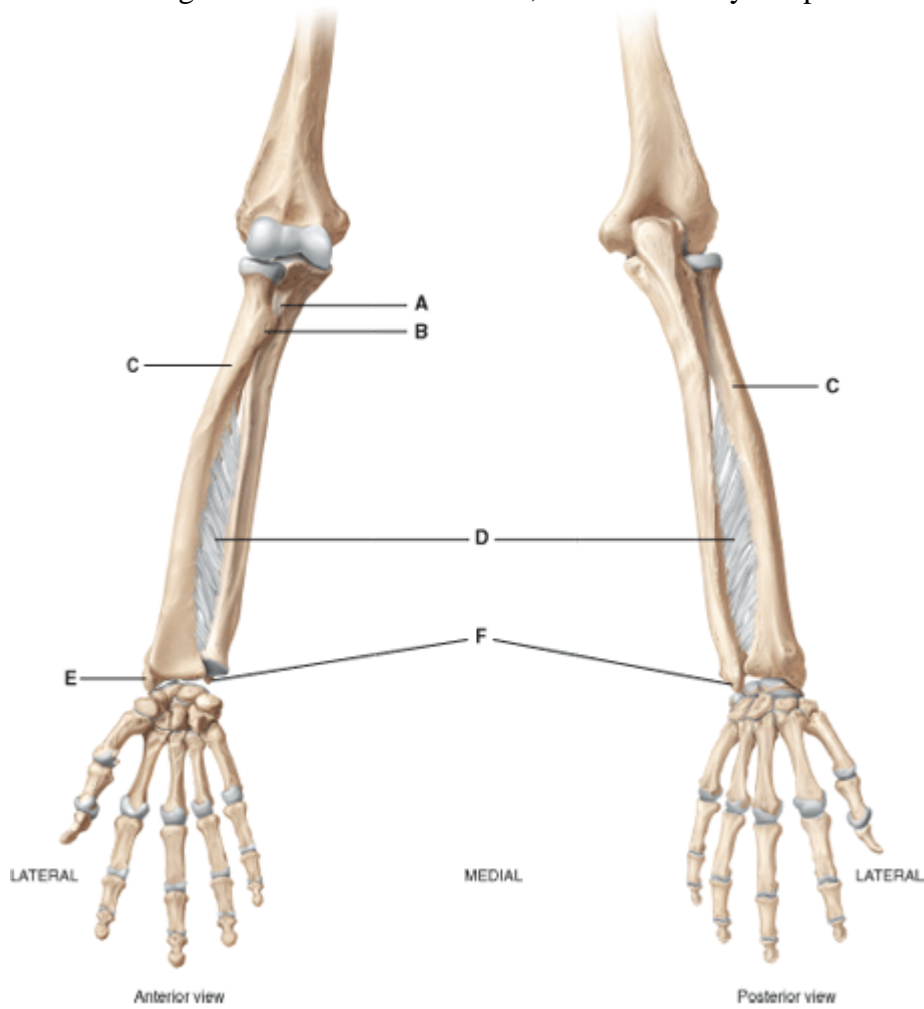
- a. B
- b. C
- c. D
- d. E
- e. F

Ans: C

Difficulty: easy

Feedback: 8.2

72. In the diagram of the ulna and radius, where is the styloid process of the radius?



- a. A
- b. B
- c. E

- d. F
- e. None of the above

Ans: C  
Difficulty: medium  
Feedback: 8.2

73. In the diagram of the ulna and radius, where are attachment sites for tendons of the deep skeletal muscles of the forearm?

- a. A
- b. B
- c. D
- d. E
- e. F

Ans: C  
Difficulty: hard  
Feedback: 8.2

74. In the diagram of the ulna and radius, where is the radial tuberosity?

- a. A
- b. B
- c. E
- d. F
- e. None of the above

Ans: B  
Difficulty: medium  
Feedback: 8.2

75. In the diagram of the ulna and radius, this is where the head of the ulna articulates with the radius.

- a. C
- b. E
- c. F
- d. B
- e. None of the above

Ans: E  
Difficulty: medium



Feedback: 8.2

76. In the diagram of the ulna and radius, where is the ulnar tuberosity?

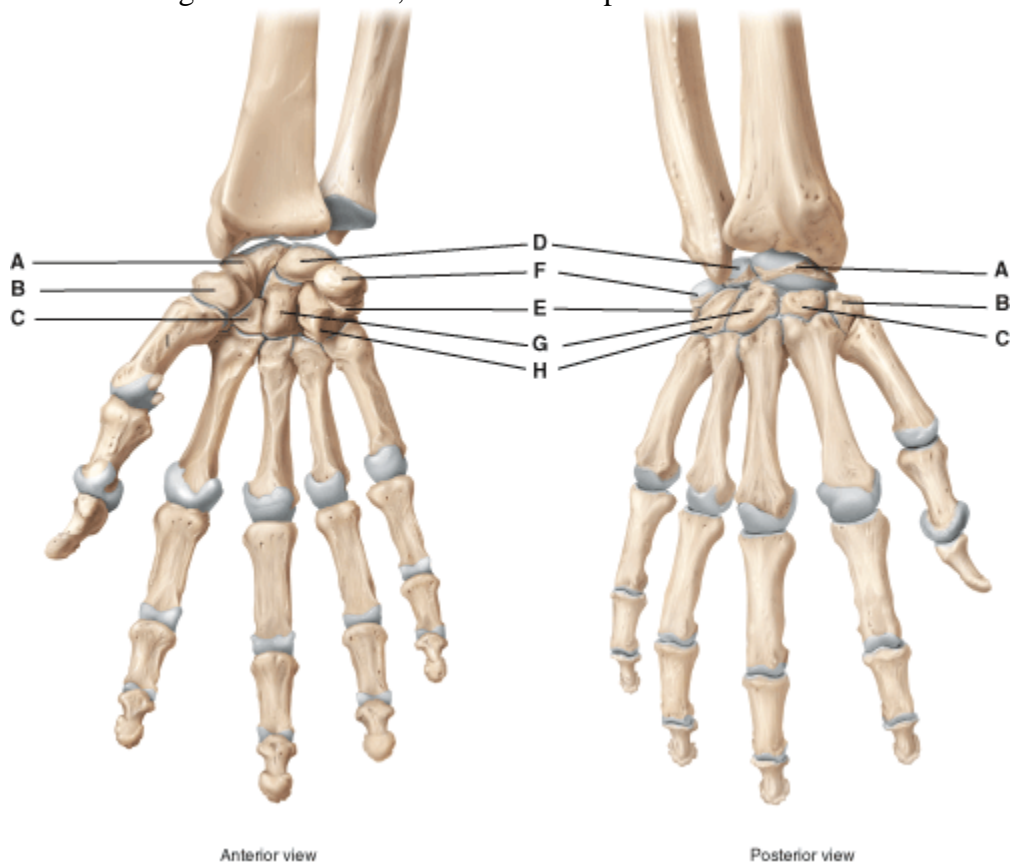
- a. A
- b. B
- c. C
- d. D
- e. E

Ans: A

Difficulty: easy

Feedback: 8.2

77. In the diagram of the hand, where is the capitate bone?



- a. D
- b. E
- c. F
- d. G
- e. H

Ans: D  
Difficulty: medium  
Feedback: 8.2

78. In the diagram of the hand, where is the trapezoid bone?
- a. A
  - b. B
  - c. C
  - d. D
  - e. E

Ans: C  
Difficulty: medium  
Feedback: 8.2

78. In the diagram of the hand, where is the pisiform bone?
- a. C
  - b. D
  - c. E
  - d. F
  - e. G

Ans: D  
Difficulty: medium  
Feedback: 8.2

79. In the diagram of the hand, where is the scaphoid bone?
- a. A
  - b. B
  - c. C
  - d. E
  - e. G

Ans: A  
Difficulty: medium  
Feedback: 8.2

80. In the diagram of the hand, where is the lunate bone?

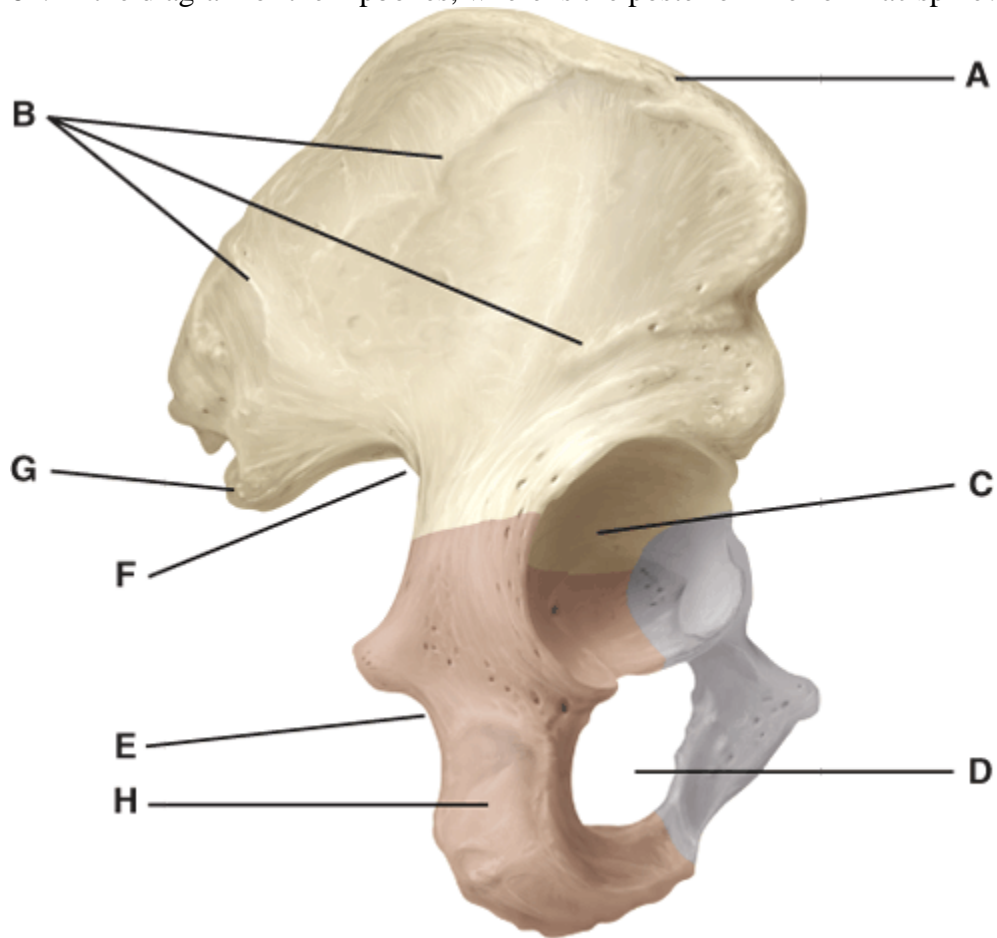
- a. C
- b. D
- c. E
- d. F
- e. G

Ans: B

Difficulty: medium

Feedback: 8.2

81. In the diagram of the hipbones, where is the posterior inferior iliac spine?



Detailed lateral view

- a. C
- b. D

- c. E
- d. F
- e. G

Ans: E  
Difficulty: medium  
Feedback: 8.3

82. In the diagram of the hipbones, where do the tendons of the gluteal muscles attach?
- a. B
  - b. E
  - c. F
  - d. G
  - e. H

Ans: A  
Difficulty: hard  
Feedback: 8.3

83. In the diagram of the hipbones, where do the tendons of the iliacus muscles attach?
- a. C
  - b. D
  - c. G
  - d. F
  - e. H

Ans: C  
Difficulty: hard  
Feedback: 8.3

84. In the diagram of the hipbones, this is where the longest nerve in the body passes through.
- a. C
  - b. D
  - c. F
  - d. G
  - e. H

Ans: C  
Difficulty: hard  
Feedback: 8.3

85. In the diagram of the hipbones, where is the Ischial tuberosity?

- a. E
- b. F
- c. G
- d. H
- e. None of the above

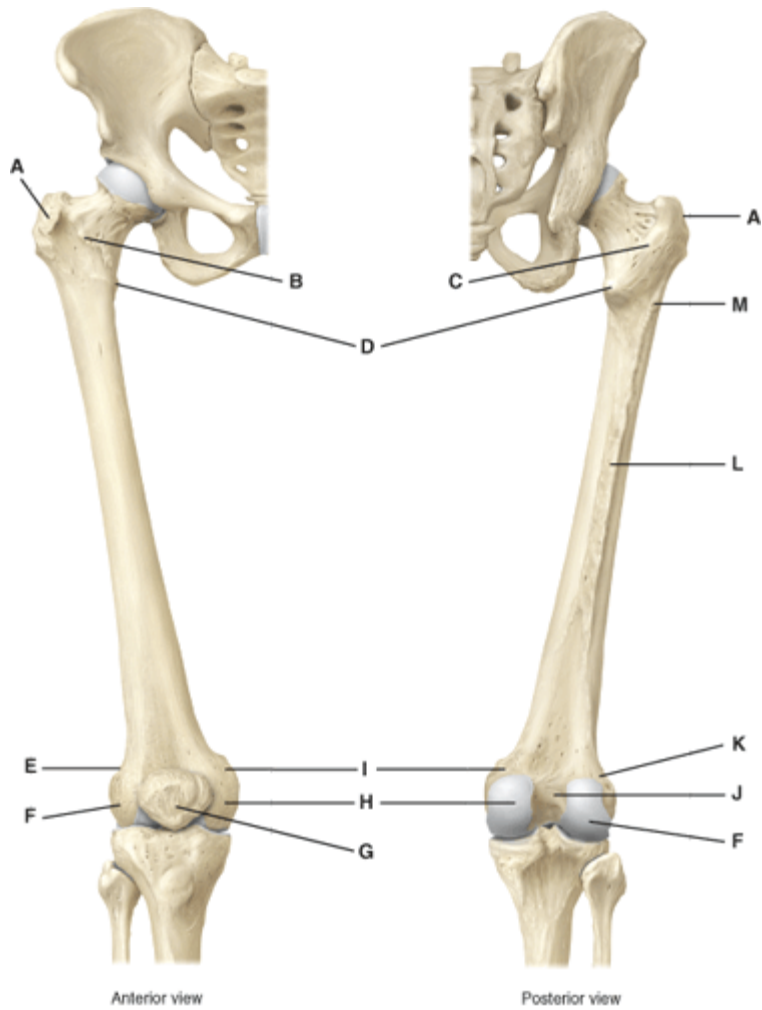
Ans: D  
Difficulty: medium  
Feedback: 8.3

86. In the diagram of the hipbones, this ends anteriorly in a blunt anterior superior iliac spine.

- a. A
- b. B
- c. C
- d. D
- e. H

Ans: A  
Difficulty: medium  
Feedback: 8.3

87. In the diagram of the femur, this serves as points of attachment for the tendons of some of the thigh and buttocks muscles.



Anterior view

Posterior view

- a. A,B
- b. A,B,C
- c. A,D
- d. A,D,M
- e. D,M,L

Ans: C

Difficulty: hard

Feedback: 8.5

88. In the diagram of the femur, where is the intertrochanter line?

- a. B
- b. C
- c. D
- d. M
- e. None of the above

Ans: A  
Difficulty: easy  
Feedback: 8.5

89. In the diagram of the femur, the gluteal tuberosity blends into the linea aspera; where are they in the diagram?
- a. B and C
  - b. A and D
  - c. M and L
  - d. J and K
  - e. E and H

Ans: C  
Difficulty: medium  
Feedback: 8.5

90. In the diagram of the femur, where is the medial condyle?
- a. E
  - b. F
  - c. G
  - d. H
  - e. I

Ans: D  
Difficulty: medium  
Feedback: 8.5

91. In the diagram of the femur, where is the Intercondylar fossa?
- a. H
  - b. I
  - c. J
  - d. K
  - e. L

Ans: C  
Difficulty: medium  
Feedback: 8.5

92. In the diagram of the femur, where is the lateral epicondyle?

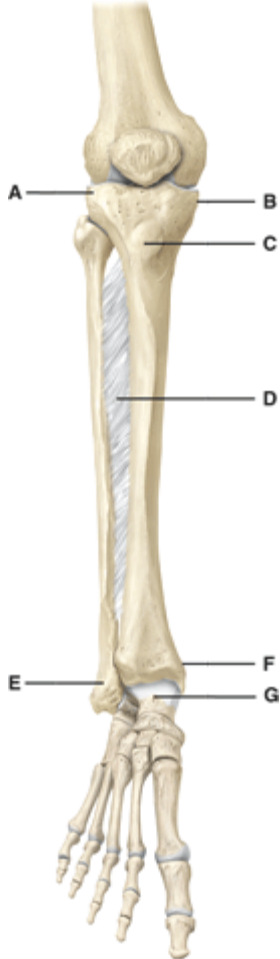
- a. F and I
- b. G and H
- c. E and K
- d. I and J
- e. None of the above

Ans: C

Difficulty: medium

Feedback: 8.5

93. In the diagram of the tibia and fibula, where is the tibial tuberosity?



Anterior view

- a. B
- b. C
- c. E
- d. F



e. G

Ans: B

Difficulty: medium

Feedback: 8.5

94. In the diagram of the tibia and fibula, where is the lateral condyle?

- a. A
- b. B
- c. C
- d. D
- e. E

Ans: A

Difficulty: medium

Feedback: 8.5

95. In the diagram of the tibia and fibula, what articulates with the condyles of the femur to form the tibiofemoral joint?

- a. A and B
- b. B and C
- c. A and C
- d. E and F
- e. None of the above

Ans: A

Difficulty: medium

Feedback: 8.5

96. In the diagram of the tibia and fibula, this forms an articulation with the talus bone and forms a protrusion on the medial surface of the ankle.

- a. E
- b. F
- c. G
- d. Both E and F
- e. All of the above

Ans: B

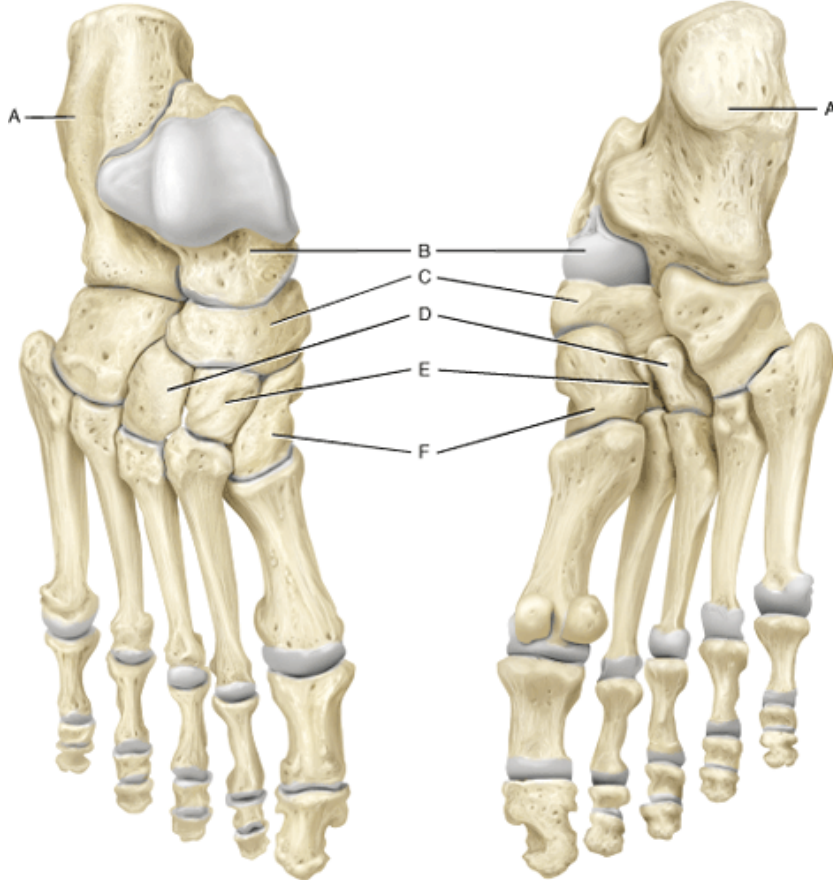
Difficulty: hard  
Feedback: 8.5

97. In the diagram of the tibia and fibula, this forms the prominence on the lateral surface of the ankle.

- a. E
- b. F
- c. G
- d. Both E and F
- e. All of the above

Ans: A  
Difficulty: medium  
Feedback: 8.5

98. In the diagram of the foot, where is the first cuneiform?



- a. B
- b. C
- c. D
- d. E
- e. F

Ans: E

Difficulty: medium

Feedback: 8.5

99. In the diagram of the foot, where is the navicular?

- a. A
- b. B
- c. C
- d. D
- e. E

Ans: C

Difficulty: medium

Feedback: 8.5

100. In the diagram of the foot, this is the largest and strongest tarsal bone.

- a. A
- b. B
- c. C
- d. Both a and b
- e. All of the above

Ans: A

Difficulty: medium

Feedback: 8.5

101. In the diagram of the foot, between these bones is where intertarsal joints are found.

- a. B
- b. C
- c. D
- d. E

e. All of the above

Ans: E

Difficulty: medium

Feedback: 8.5

102. In the diagram of the foot, this is the only bone of the foot that articulates with the fibula and tibia.

- a. A
- b. B
- c. C
- d. All of the above
- e. None of the above

Ans: B

Difficulty: medium

Feedback: 8.5

## Essay

103. Compare and contrast the male and female pelvis.

Ans: Male pelvis is heavier, deeper false pelvis, smaller pelvic inlet, rounder Obturator foramen and a pubic arch less than 90 degrees. The female pelvis is lighter, shallower false pelvis, oval shaped pelvic inlet, and a pubic arch of over 90 degrees.

Difficulty: medium

Feedback: 8.4

104. Name the bones that are included in each lower limb.

Ans: 30 bones: femur, patella, tibia, fibula, seven tarsals, 5 metatarsals and 14 phalanges.

Difficulty: medium

Feedback: 8.5

105. Name the bones that are included in each upper limb.

Ans: 30 bones; humerus, ulna, radius, 8 carpals, 5 metacarpals and 14 phalanges.

Difficulty: medium

Feedback: 8.2