

The Skeletal System: Anatomy

The Skeletal System- Adult skeleton= 206 bones

A. Axial Skeleton

1. 74 bones; 6 middle ear bones

B. Appendicular Skeleton

1. 126 bones

I. **Bones Markings (Practical 1)**

- A. Angle
- B. Body
- C. Condyle
- D. Crest
- E. Epicondyle
- F. Facet
- G. Fissure
- H. Foramen
- I. Fossa
- J. Groove
- K. Head
- L. Line
- M. Margin
- N. Meatus
- O. Neck
- P. Notch
- Q. Process
- R. Ramus
- S. Sinus
- T. Spine
- U. Trochanter
- V. Tuberosity
- W. Tubercle

II. **Full Skeleton (Practical 2)**

- A. Temporal Bone
- B. Frontal Bone
- C. Parietal Bone
- D. Occipital Bone
- E. Wormian Bones
- F. Mandible
- G. Hyoid Bone
- H. Sternum
- I. Ribs
- J. Cervical Vertebrae

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The Skeletal System: Anatomy

- K. Thoracic Vertebrae
- L. Lumbar Vertebrae
- M. Sacrum
- N. Coccyx
- O. Clavicle
- P. Scapula
- Q. Humerus
- R. Ulna
- S. Radius
- T. Carpals
- U. Metacarpals
- V. Phalanges
- W. Coxal
- X. Femur
- Y. Patella
- Z. Tibia
- AA. Fibula
- BB. Tarsals
- CC. Metatarsals
- DD. Phalanges

III. Skull (Practical 3)- 28 bones: cranium-8 bones: face-14 bones: ear-6 bones

1. Frontal Bone
 - a. frontal sinuses
 - b. supraorbital margin
 - c. supraorbital foramen
2. Parietal Bone
3. Sphenoid
 - a. body
 - b. greater wings
 - c. lesser wings
4. Temporal Bone
 - a. mastoid process
 - b. external auditory meatus
 - c. zygomatic process
 - d. mandibular fossa
 - e. styloid process
5. Occipital Bone
 - a. foramen magnum
 - b. occipital condyles
 - c. external occipital protuberance
6. Ethmoid

The Skeletal System: Anatomy

FACIAL

7. Palatine
8. Mandible
 - a. body of mandible
 - b. ramus
 - c. mandibular condyle
 - d. neck of mandible
 - e. mental foramen
 - f. coronoid process of mandible
 - g. angle of mandible
9. Maxilla
10. Nasal
11. Zygomatic Bone
12. Lacrimal
13. Inferior Nasal Conchae
14. Vomer

SUTURES

1. Squamous
2. Coronal
3. Lambdoidal
4. Sagittal

FONTANEL

1. Frontal (anterior)
2. Occipital (posterior)
3. Sphenoid (anterolateral)
4. Mastoid (posterolateral)

OTHER

1. Wormian Bones
2. Hyoid

Middle Ear- 2 of each

1. malleus (hammer)
2. incus (anvil)
3. stapes (stirrup)

IV. Vertebral Column (Practical 4)

1. Cervical Vertebrae (7)
 - a. atlas (1)
 1. superior articular facet
 2. transverse process
 3. transverse foramen

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The Skeletal System: Anatomy

4. vertebral foramen
5. inferior articulating processes
- b. axis (2)
 1. superior articular facet
 2. body
 3. transverse process
 4. transverse foramen
 5. inferior articulating processes
 6. vertebral foramen
- c. cervical vertebrae (3-7)
 1. spinous process
 2. superior articular facet
 3. transverse process
 4. transverse foramen
 5. vertebral foramen
 6. inferior articulation processes
- d. thoracic vertebrae (1-12)
 1. spinous process
 2. superior articular facet
 3. transverse process
 4. articular facet for tubercle of rib
 5. vertebral foramen
- e. lumbar vertebrae (1-5)
 1. spinous process
 2. transverse process
 3. body
 4. superior articular facet
- f. sacrum
 1. superior articular facet
 2. median sacral crest
 3. sacral foramina
- g. coccyx
- h. curves
 1. primary
 2. secondary

V. Thorax (Practical 5)

A. Sternum

1. body
2. manubrium
3. xiphoid process

B. Ribs

1. true ribs (upper 7)
2. false ribs (5 pairs)

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The Skeletal System: Anatomy

3. floating ribs
 - a. head
 - b. neck
 - c. tubercle
 - d. body or shaft
 - e. costal cartilage

C. Clavicle

1. sternal end
2. acromial end

D. Scapula

1. superior angle
2. acromion process
3. coracoid process
4. axillary border
5. superior border
6. costal surface
7. inferior angle
8. vertebral border
9. spine
10. dorsal surface
11. glenoid cavity

E. Coxal

1. ilium
2. ischium
3. pubic bone (pubis)
4. acetabulum
5. iliac crests
6. anterior superior spine
7. anterior inferior spine
8. posterior superior spine
9. posterior inferior spine
10. greater sciatic notch
11. spine of ischium
12. obturator foramen
13. ischial tuberosity
14. pubic crest
15. pubic symphysis

The Skeletal System: Anatomy

VI. Upper Extremity (Practical 6)

A. Humerus

1. head
2. anatomical neck
3. greater tubercle
4. lesser tubercle
5. intertubercular groove
6. deltoid tuberosity
7. medial epicondyle
8. coronoid fossa
9. lateral epicondyle
10. surgical neck
11. olecranon fossa
12. capitulum
13. trochlea

B. Radius

1. head
2. neck
3. styloid process
4. radial tuberosity

C. Ulna

1. olecranon process
2. coronoid process
3. styloid process
4. head
5. semilunar notch

D. Carpals

1. pisiform
2. triquetrum
3. lunate
4. scaphoid
5. hamate
6. capitate
7. trapezoid
8. trapezium

E. Metacarpals (1 - 5)

The Skeletal System: Anatomy

F. Phalanges

1. proximal phalanx
2. middle phalanx
3. distal phalanx

VII. Lower Extremity (Practical 7)

A. Femur

1. head
2. neck
3. lesser trochanter
4. greater trochanter
5. intertrochanteric line
6. lateral epicondyle
7. lateral condyle
8. adductor tubercle
9. medial epicondyle
10. medial condyle
11. trochlea

B. Patella (sesmoid bone)

C. Tibia

1. intercondylar eminence
2. lateral condyle
3. medial condyle
4. tibial tuberosity
5. crest
6. medial malleolus

D. Fibula

1. head
2. lateral malleolus

E. Tarsals

1. cuneiforms (1 - 3)
2. navicular
3. talus
4. calcaneus
5. cuboid

F. Metatarsals (1 - 5)

G. Phalanges

1. distal
2. middle
3. proximal

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