22a A&P:

Skeletal System - Appendicular and Axial Divisions

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Skeletal System - Appendicular and Axial Divisions
Class Outline

5 minutes	Attendance, Breath of Arrival, and Reminders
10 minutes	Lecture:
25 minutes	Lecture:
20 minutes	Active study skills:
60 minutes	Total

22a A&P:

Skeletal System - Appendicular and Axial Divisions

Class Reminders

In Class 22b:

- Internship evaluated full SOAP notes with date, first and last names. Signatures and dates on intake form

Exams:

- 22b Swedish Touch Assessment
  - Packet A: 81-84
  - Bring your grading sheet for evaluation A: 83
  - Be prepared to make up missing assignments and retake tests
  - Bring laptop, tablet, or phone to watch class videos, Quizlet or Exam Coach

Preparation for upcoming classes:

- 23a Pathology: Medications
  - Packet E: 27-36
  - Packet A-150

- 23b Swedish: Practical Exam
  - Packet A: 91-94
  - **Bring your grading sheet for evaluation A: 93**

Classroom Rules

Punctuality - everybody's time is precious

- Be ready to learn at the start of class; we'll have you out of here on time
- Tardiness: arriving late, returning late after breaks, leaving during class, leaving early

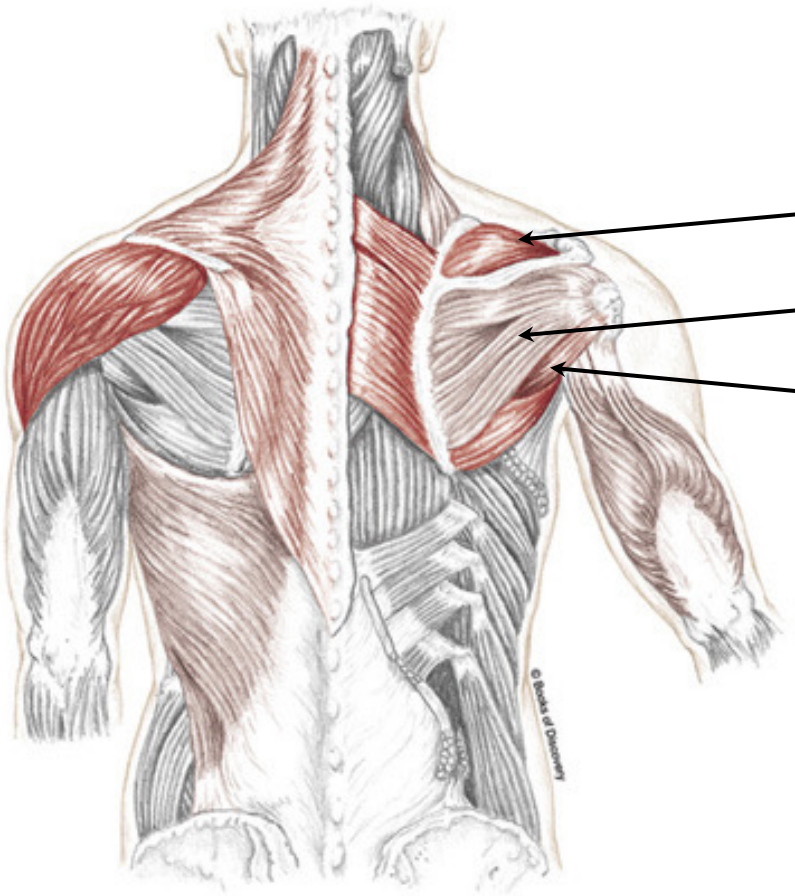
The following are not allowed:

- Bare feet
- Side talking
- Lying down
- Inappropriate clothing
- Food or drink except water
- Phones that are visible in the classroom, bathrooms, or internship

You will receive one verbal warning, then you'll have to leave the room.

The Rotator Cuff

Trail Guide, Page 74



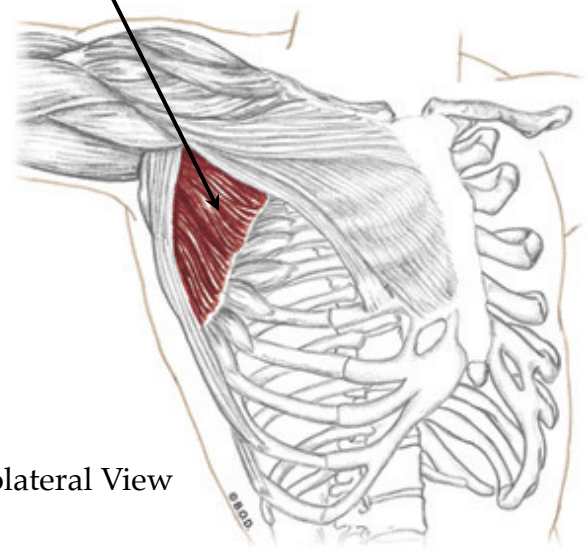
Posterior View

Supraspinatus S

Infraspinatus I

Teres Minor T

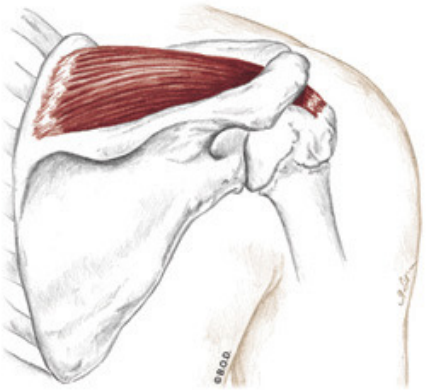
Subscapularis S



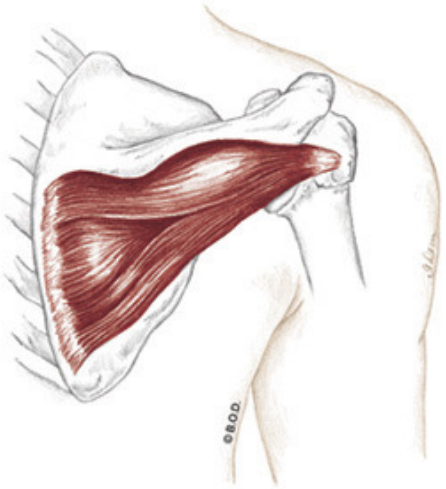
Anterolateral View

The Rotator Cuff

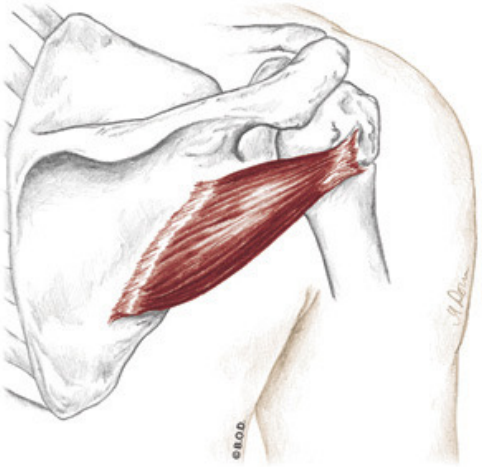
Trail Guide, Page 74



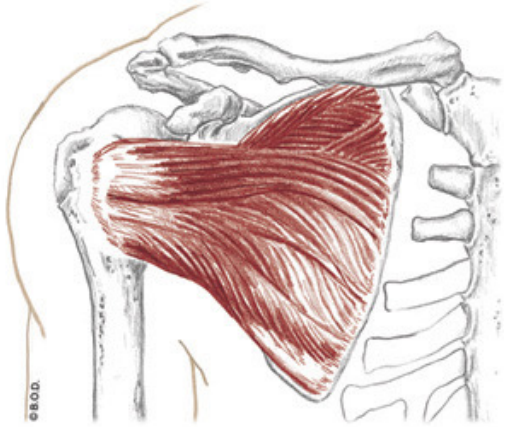
Supraspinatus
Posterior View



Infraspinatus
Posterior View

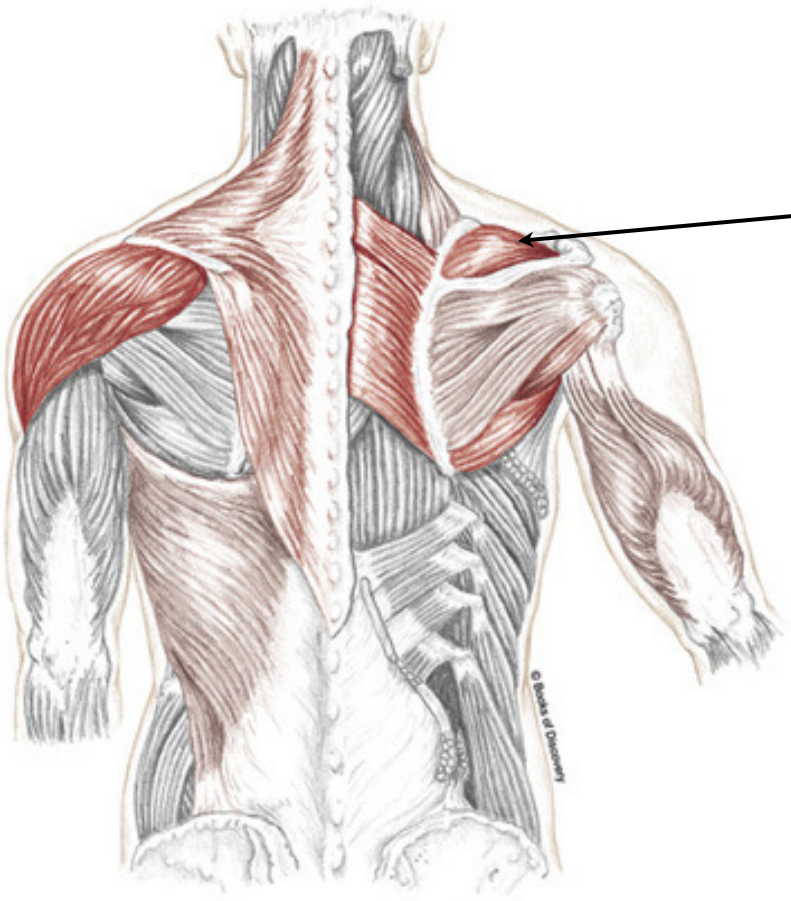


Teres Minor
Posterior View



Subscapularis
Anterior View

Supraspinatus
Trail Guide, Page 75



Posterior View

Supraspinatus is located in the supraspinous fossa, deep to the trapezius' middle fibers.

Its belly runs underneath the acromion and attaches to the humerus.

Supraspinatus is the only rotator cuff muscle that is not involved in shoulder rotation.

What do you use supraspinatus for?

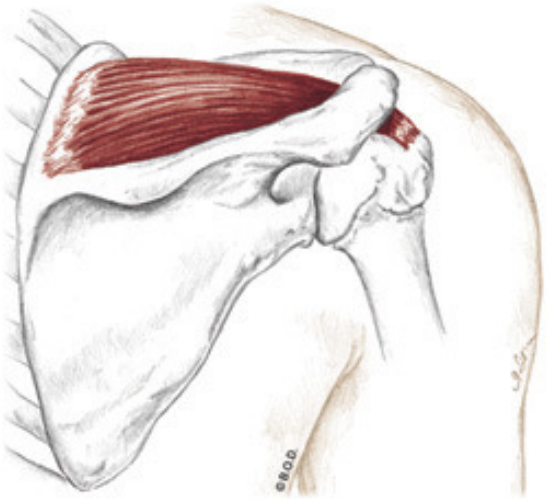
Supraspinatus, page 75

A Abduct the shoulder joint (glenohumeral joint)

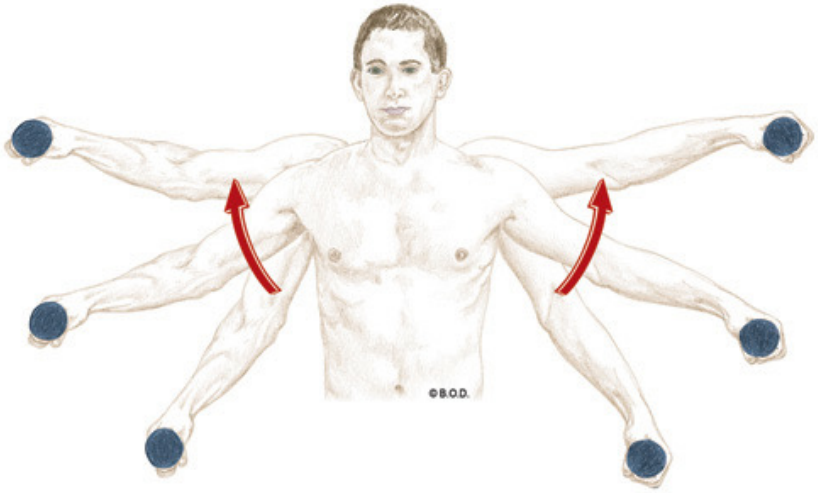
Stabilize the head of the humerus in glenoid cavity

O Supraspinous fossa of the scapula

I Greater tubercle of the humerus



Posterior View



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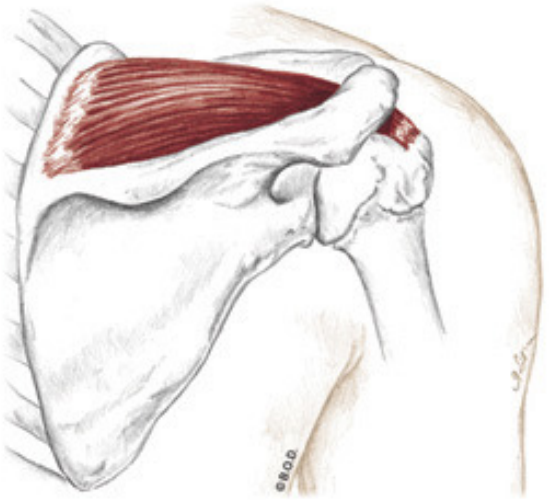

Posterior View

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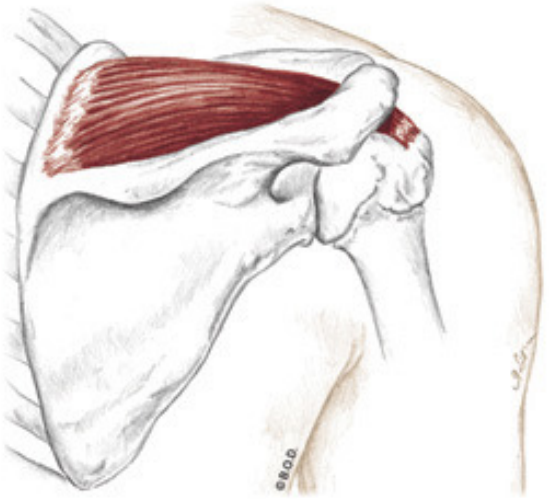
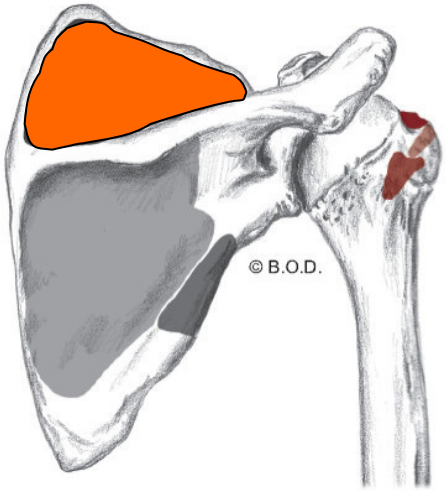


Posterior View



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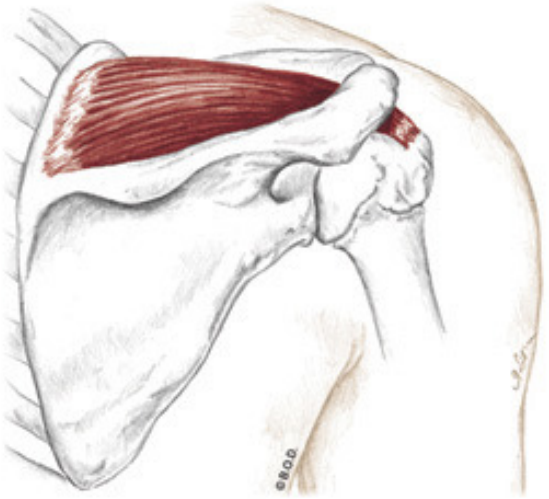
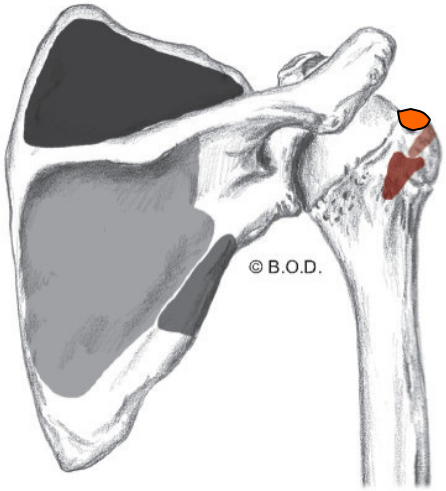


Posterior View



22a A&P:

Skeletal System - Appendicular and Axial Divisions

E-17

Divisions of the Skeletal System

Divisions of the Skeletal System

Adult Human	206 bones total
Axial Skeleton	80 bones
Appendicular Skeleton	126 bones

Divisions of the Skeletal System

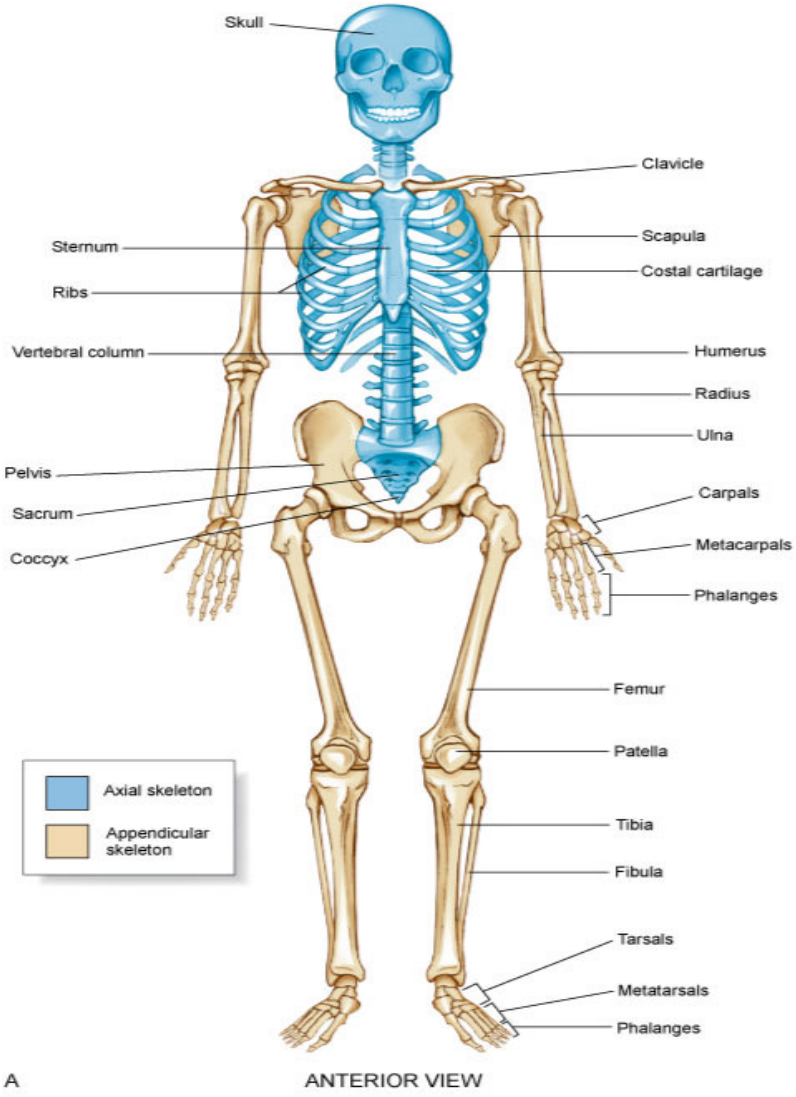
80 Axial Skeleton

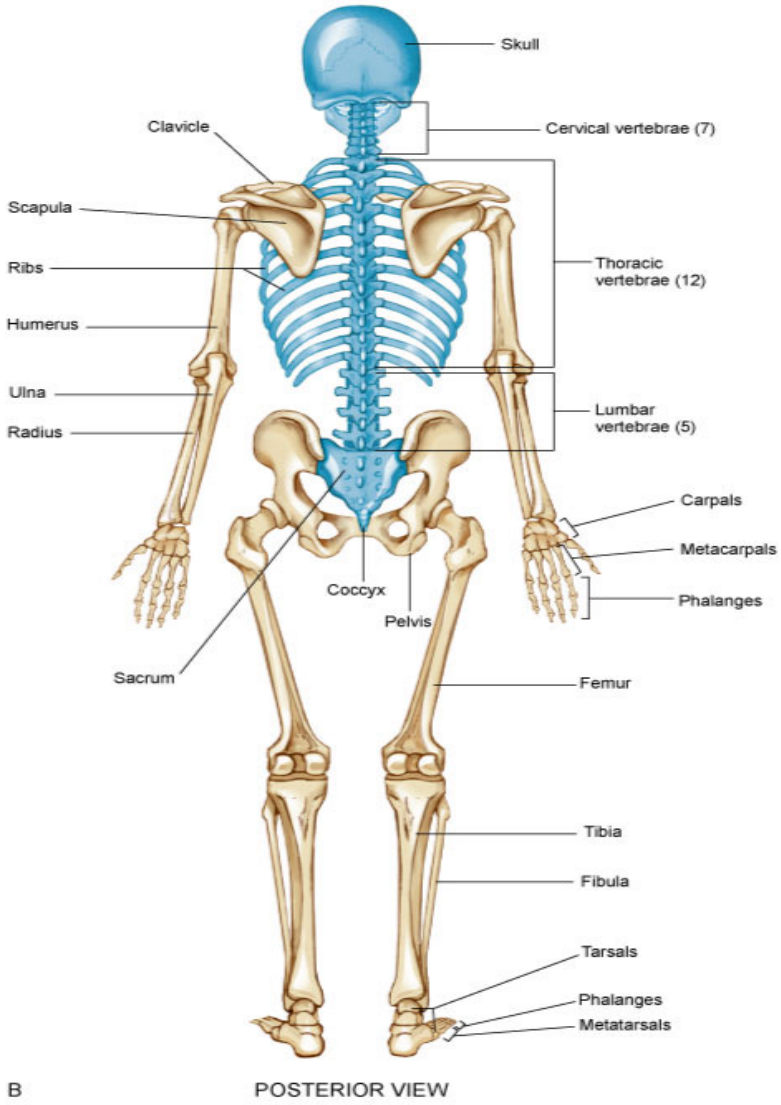
- The skeleton that a snake would have
- No arms or legs

126 Appendicular Skeleton

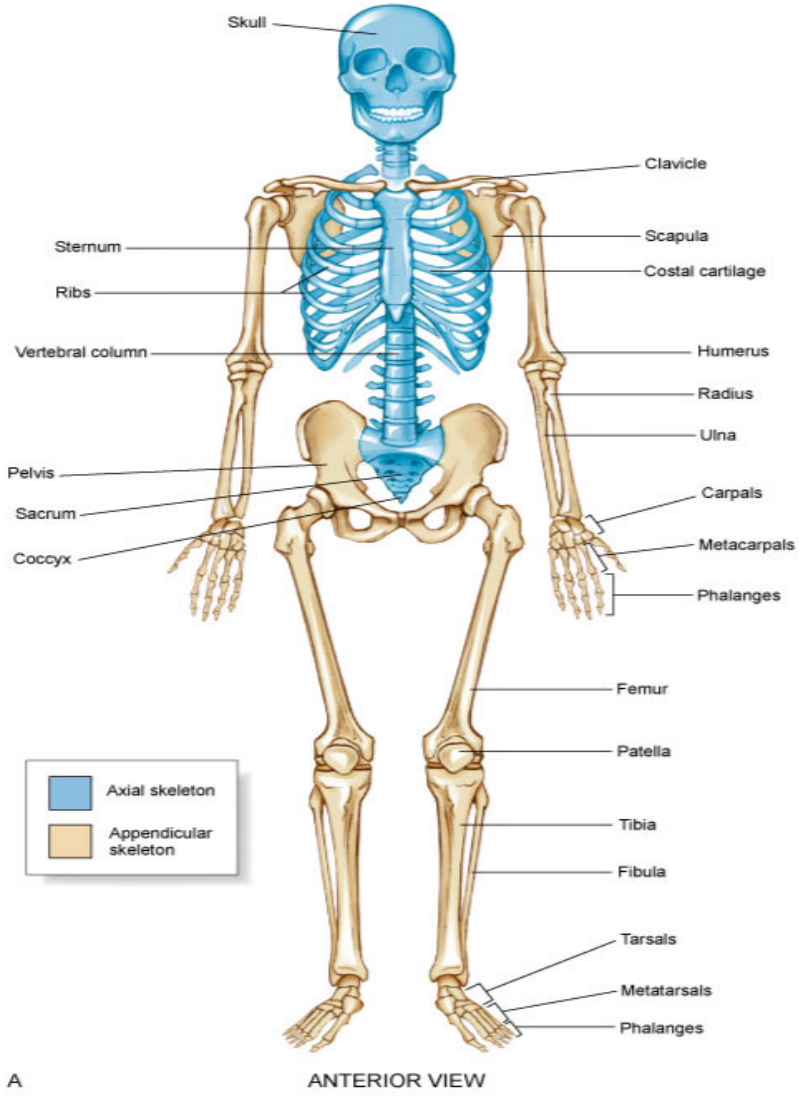
- The shoulder girdle and arms
- The pelvic girdle and legs

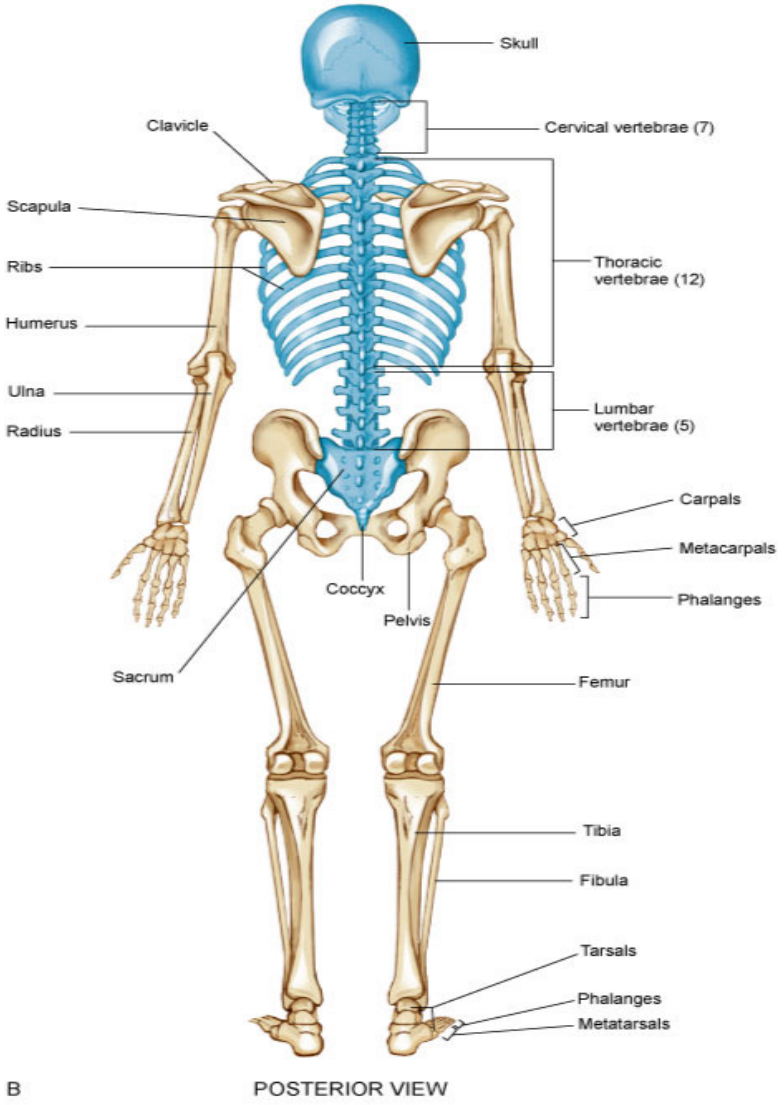
Axial Skelton in BLUE (80 bones)



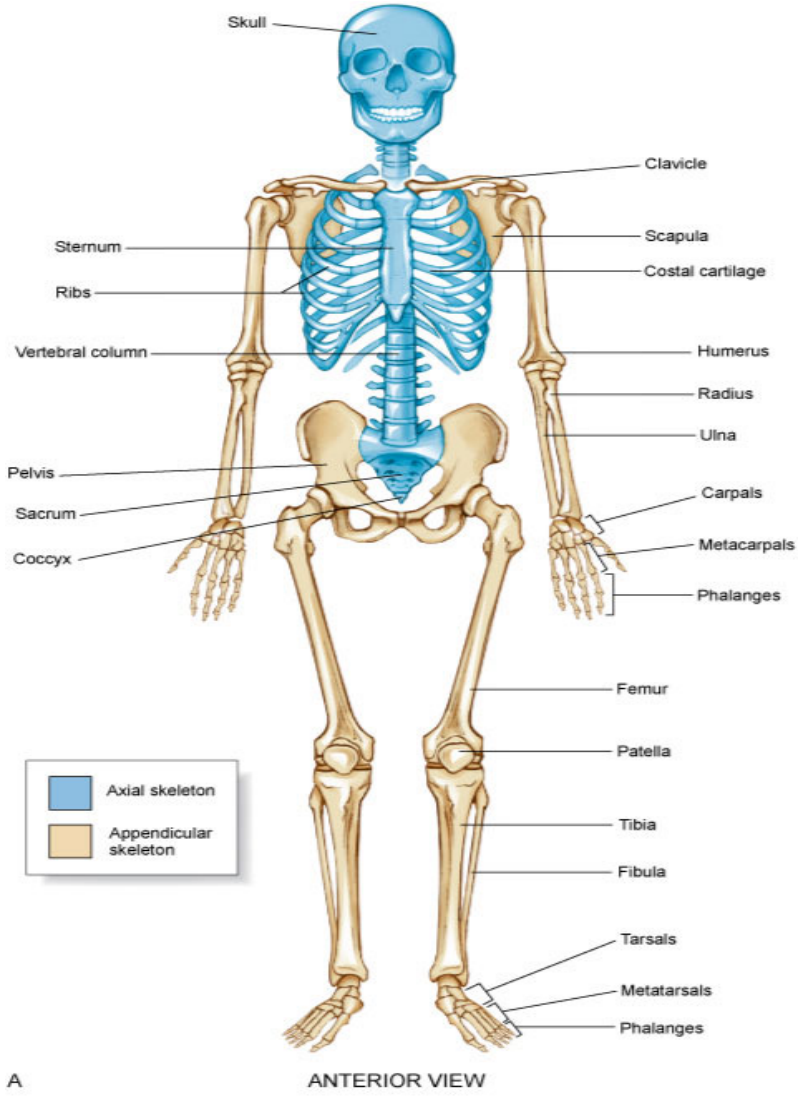


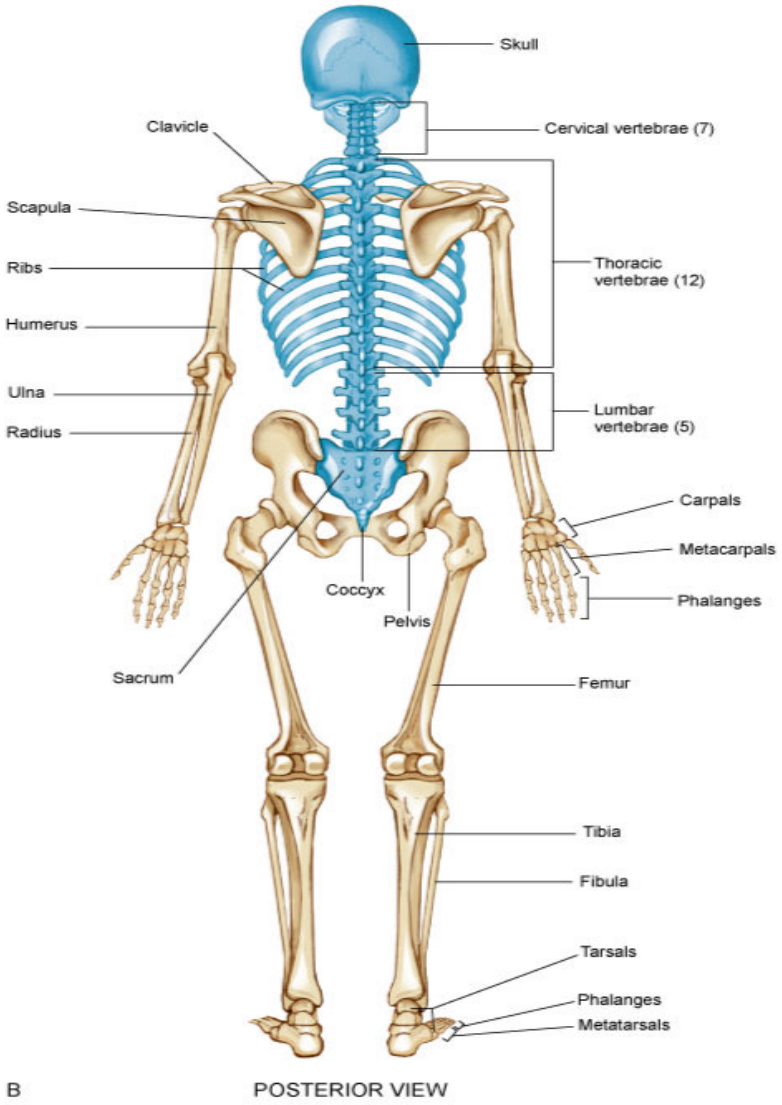
Appendicular Skeleton in WHITE (126 bones)





Human Skeleton (206 bones)





80 Axial Skeleton

80 Axial Skeleton

29 Skull
26 Vertebral column
1 Sternum
24 Ribs
80 Total

80 Axial Skeleton

29 Skull

8 Cranium

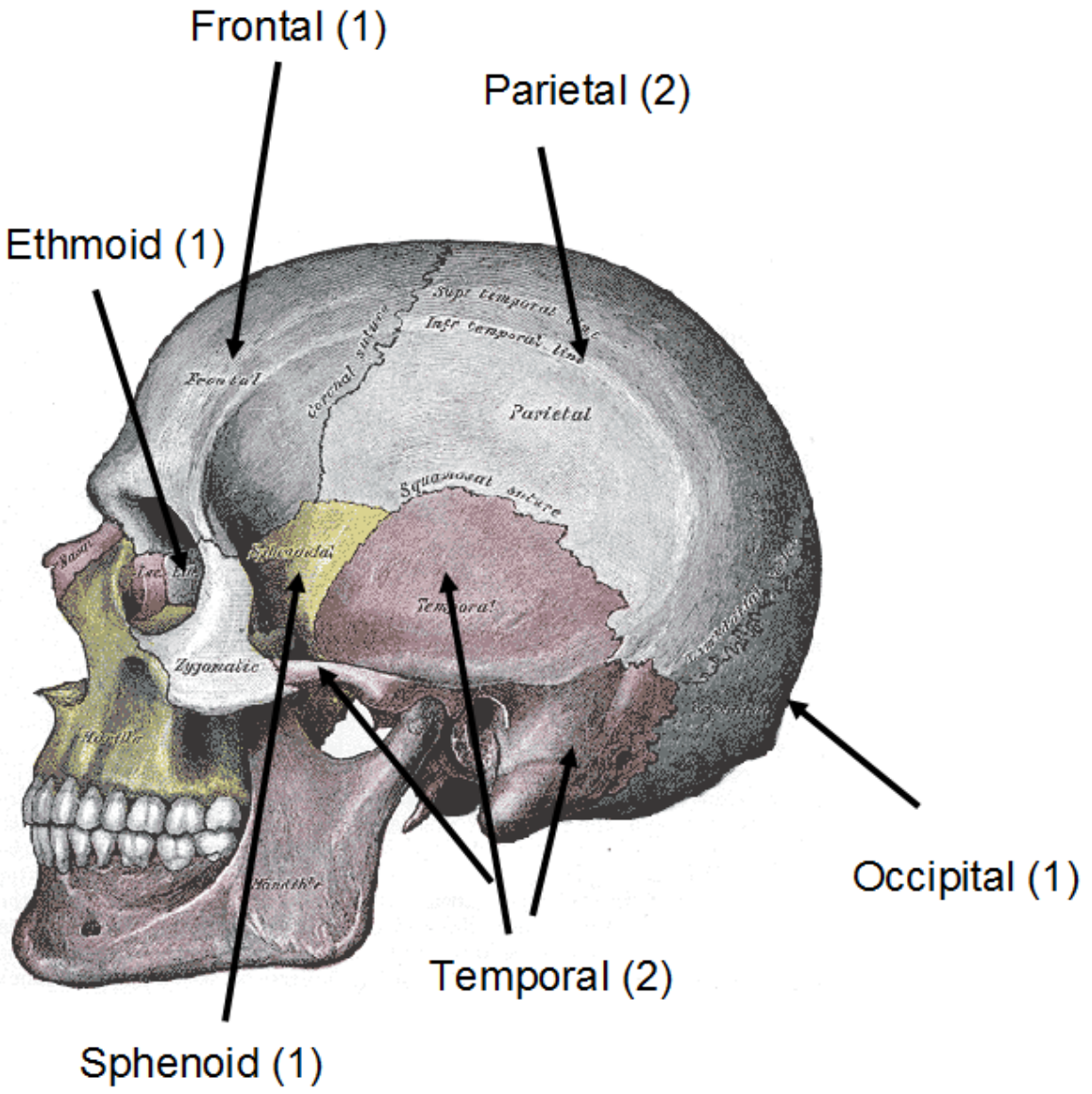
14 Face

6 Ear

1 Hyoid

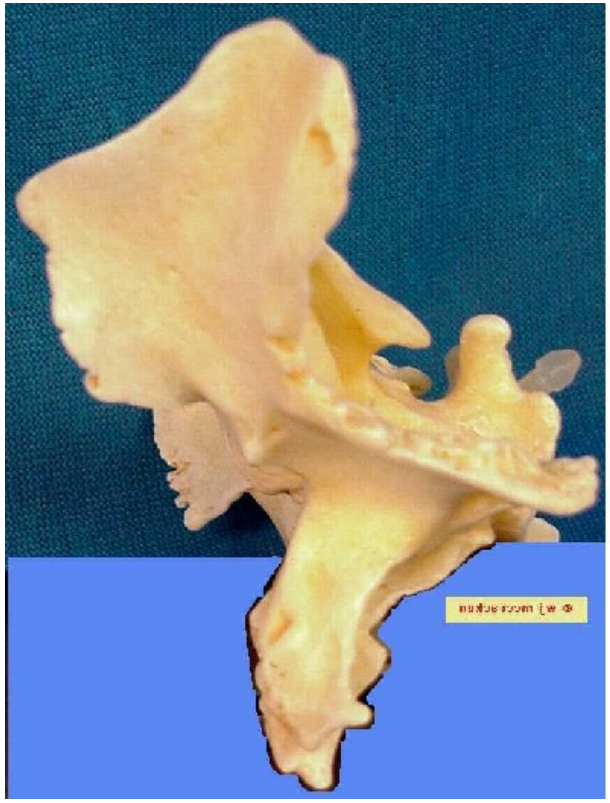
80 Axial Skeleton

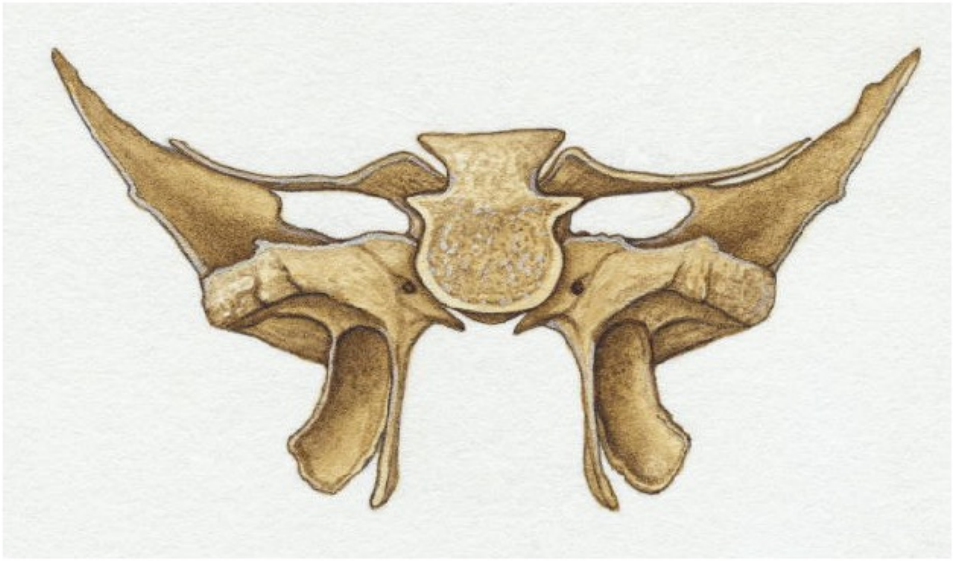
8 Cranium



80 Axial Skeleton

1 Sphenoid



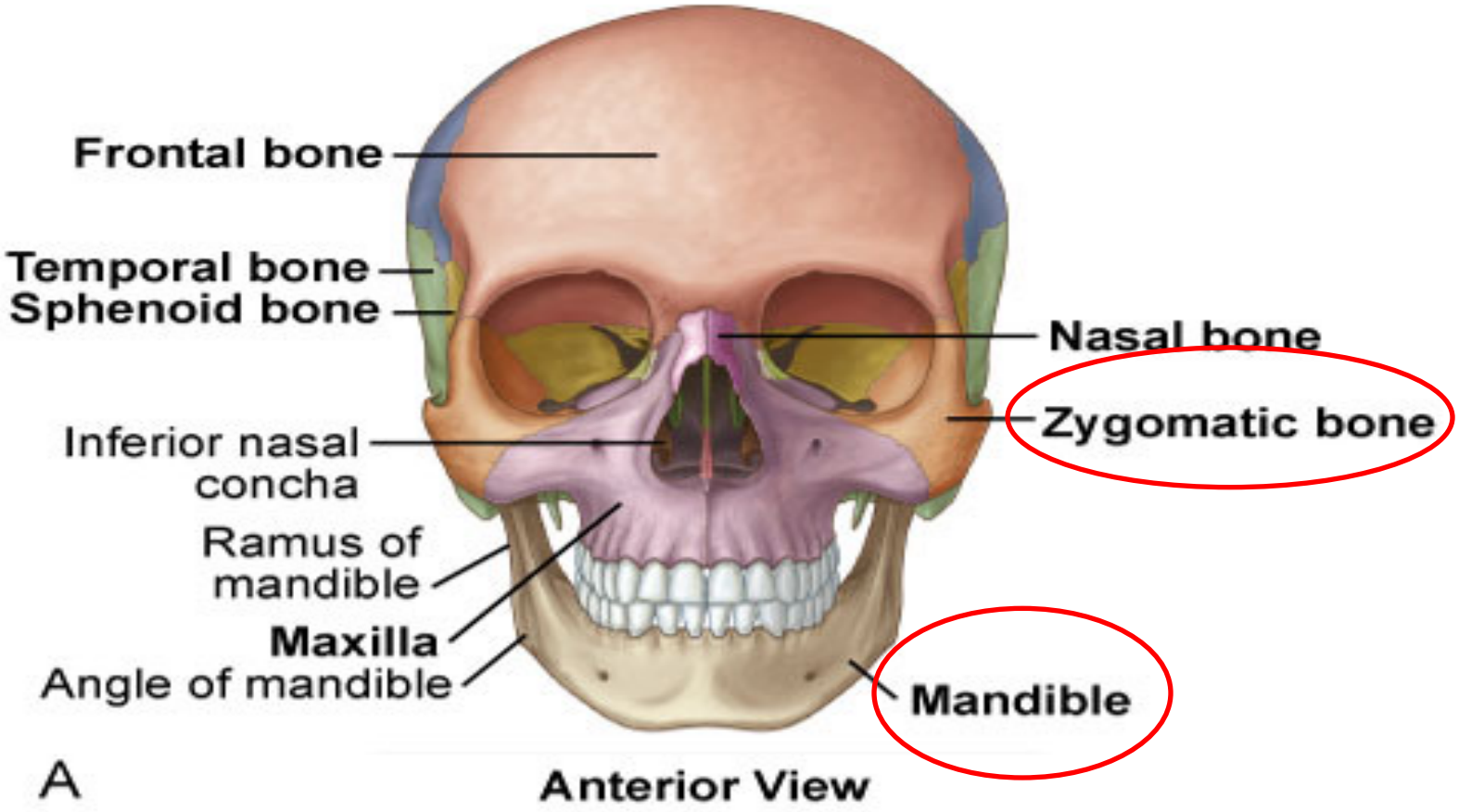


80 Axial Skeleton

14 Face

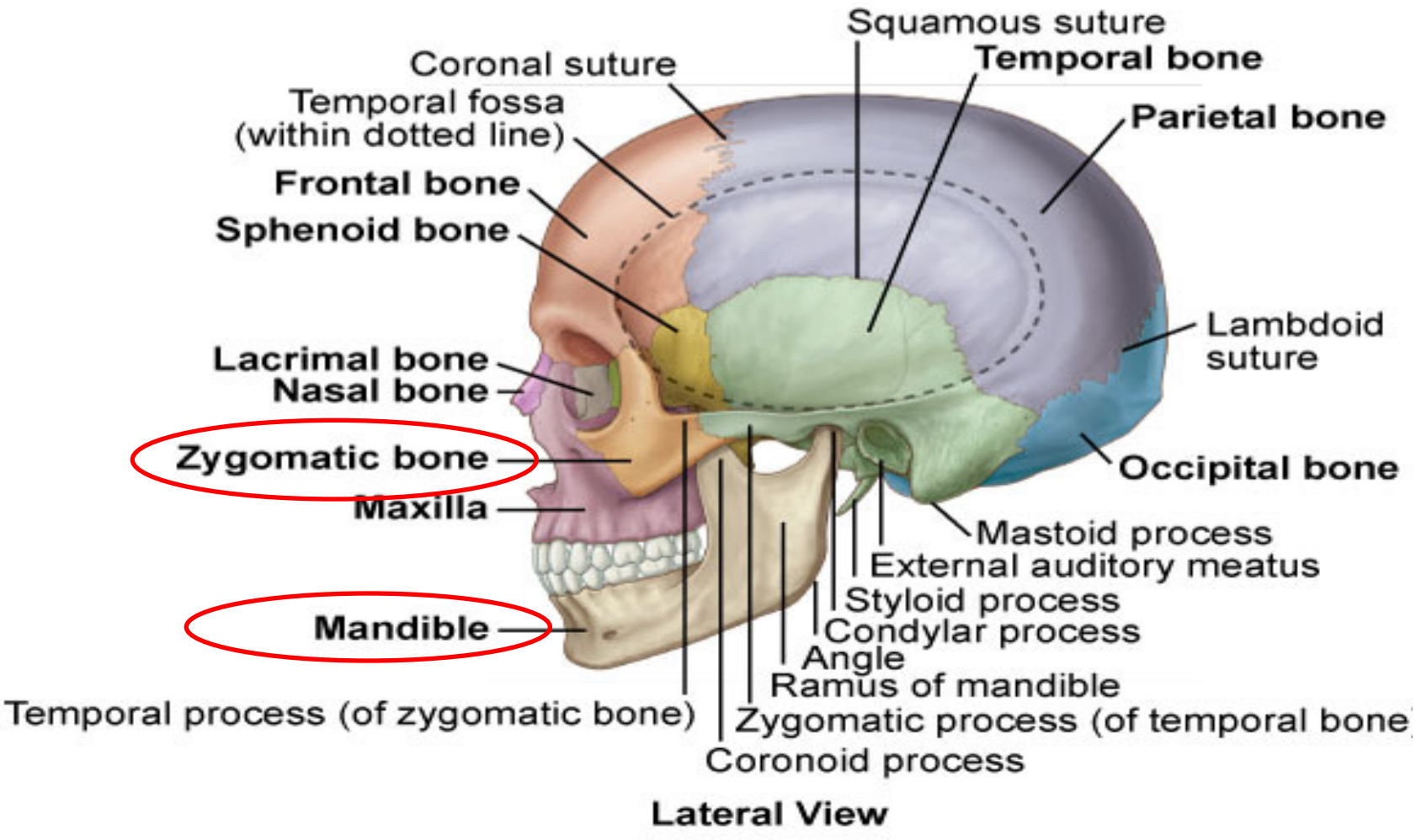
zygomatic 2

mandible 1



80 Axial Skeleton

14 Face



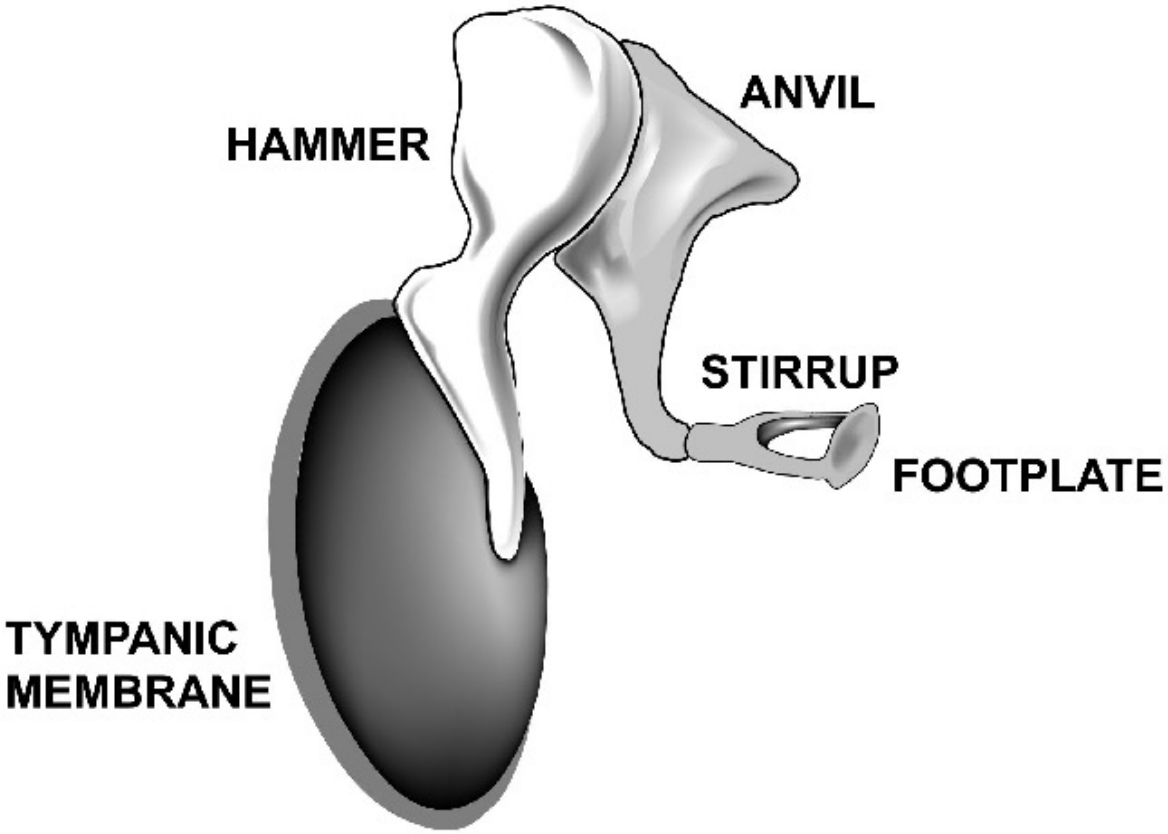
80 Axial Skeleton

6 Ear

2 malleus (hammer)

2 incus (anvil)

2 stapes (stirrup)



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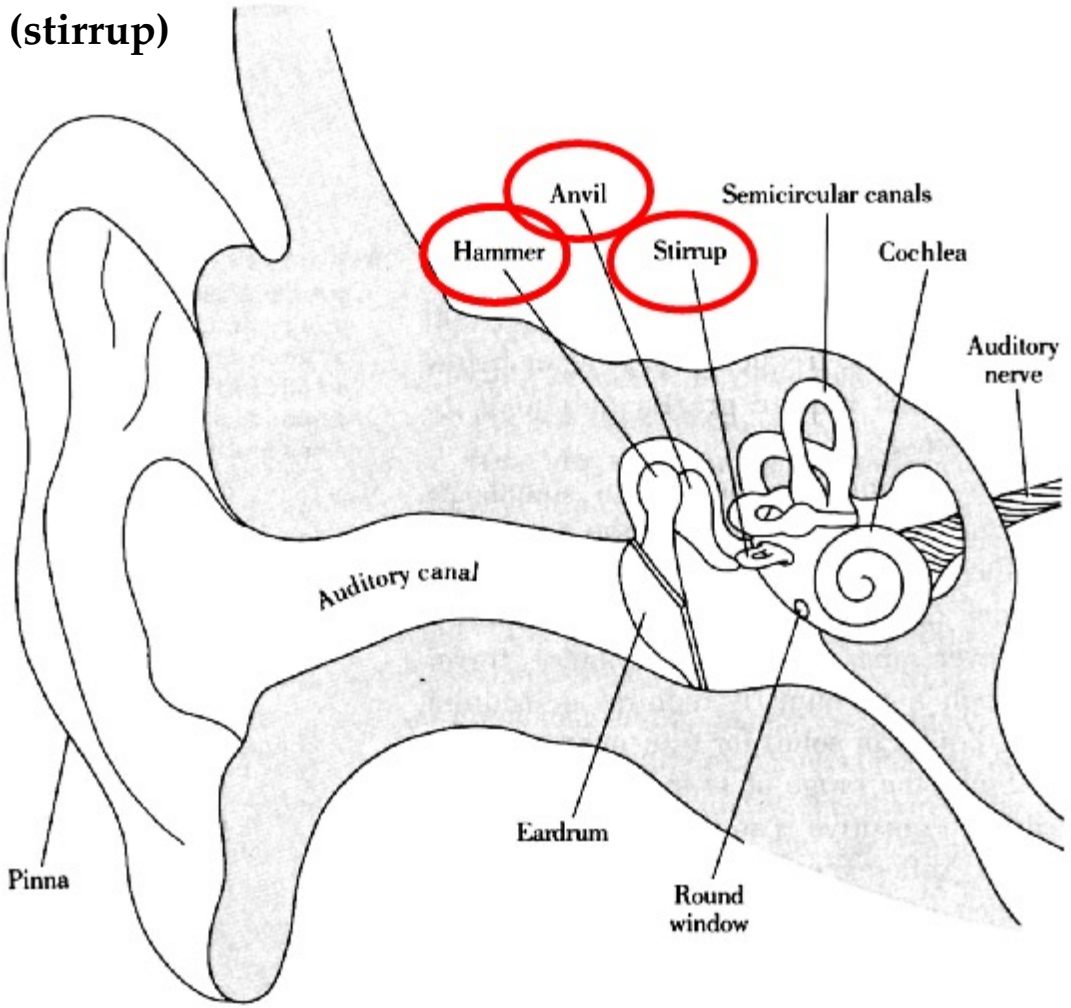
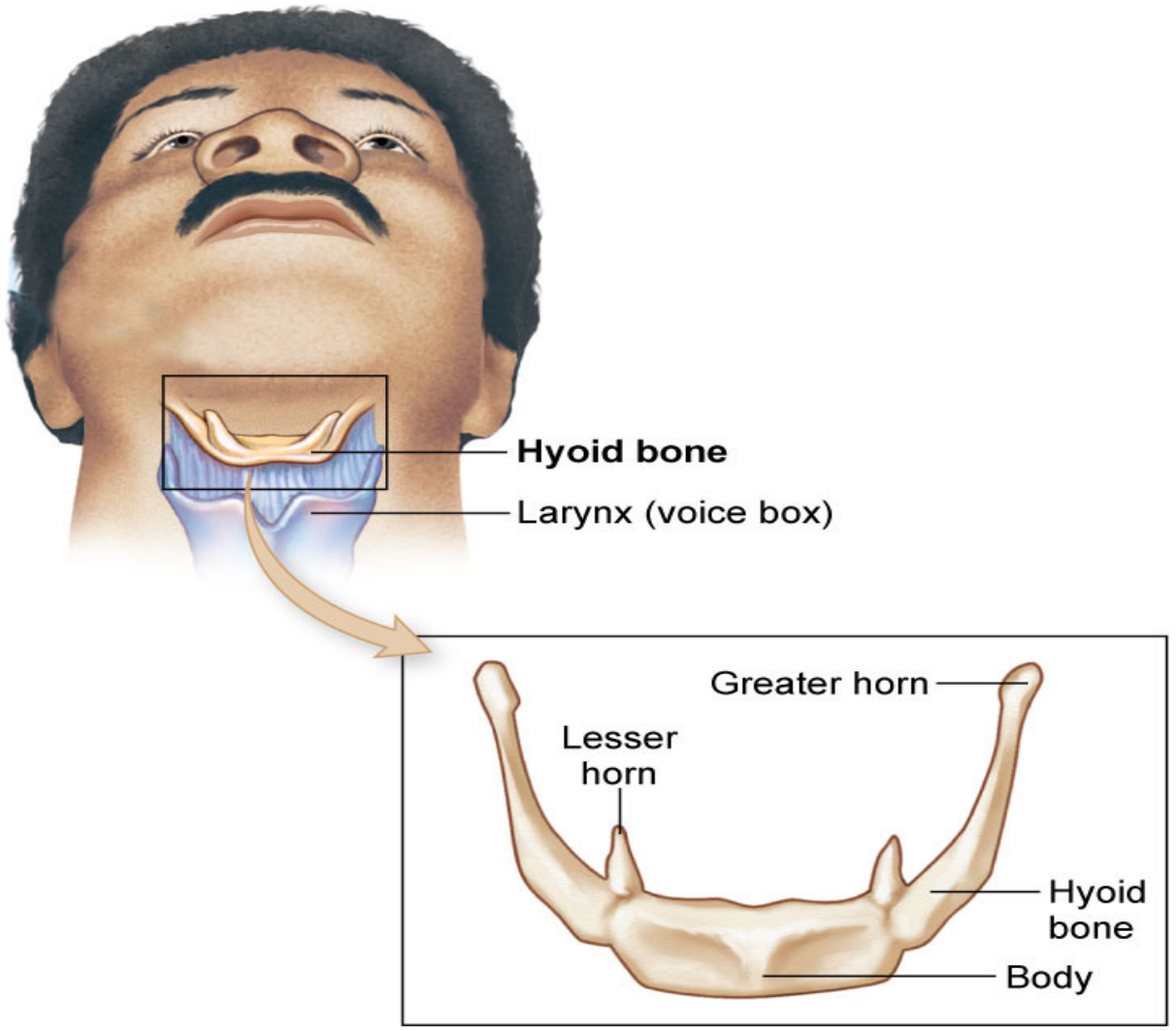


80 Axial Skeleton

1 Hyoid



From Patton KT, Thibodeau GA: *Anatomy & physiology*, ed 7, St. Louis, 2010, Mosby.

Fig. 21-19. Hyoid bone, anterior view.

80 Axial Skeleton

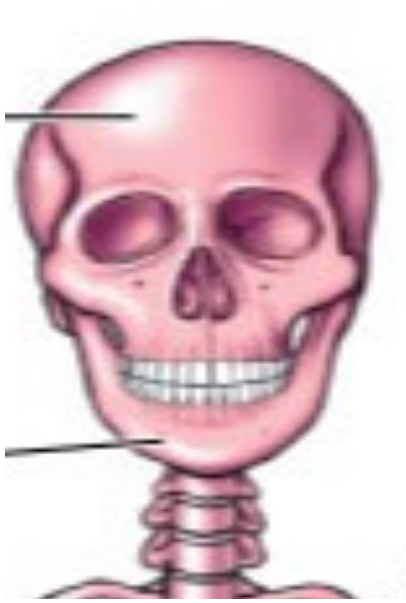
29 Skull

8 Cranium

14 Face

6 Ear

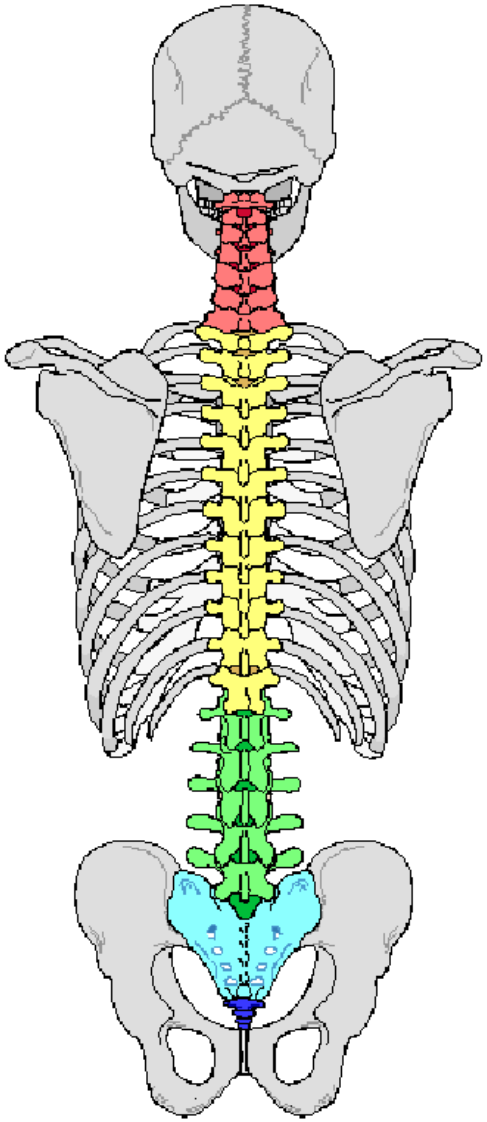
1 Hyoid



80 Axial Skeleton

26 Vertebral Column

- 7 Cervical
- 12 Thoracic
- 5 Lumbar
- 1 Sacrum
- 1 Coccyx



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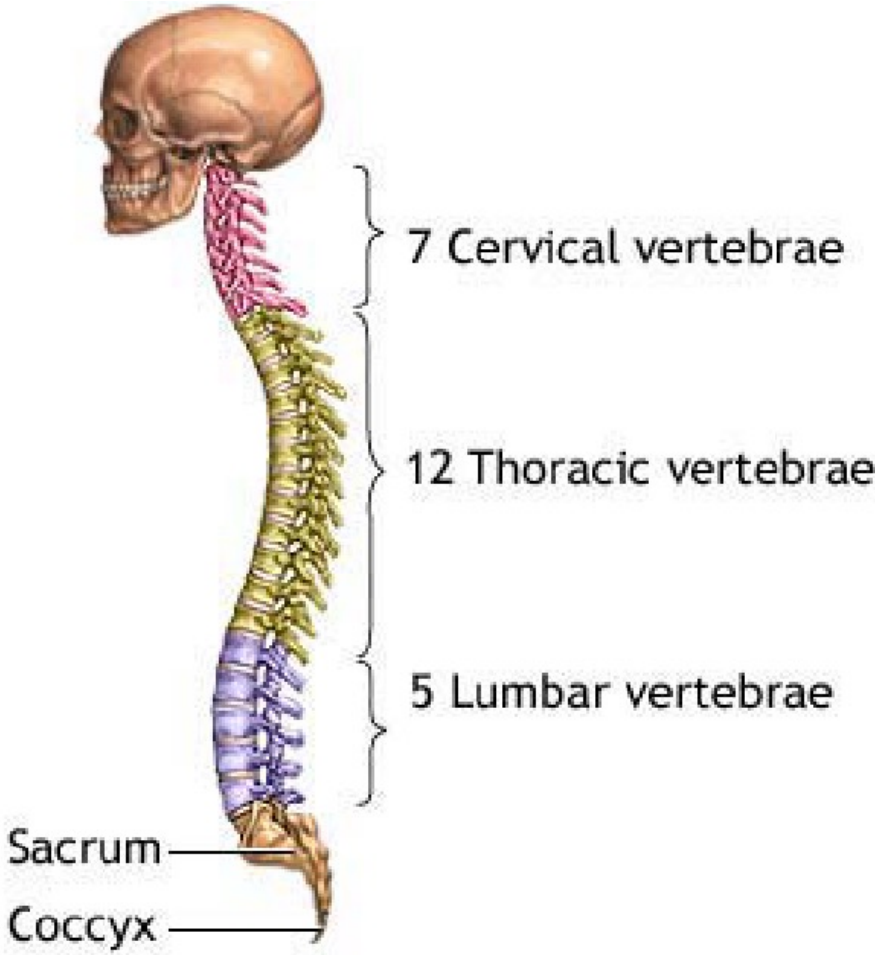
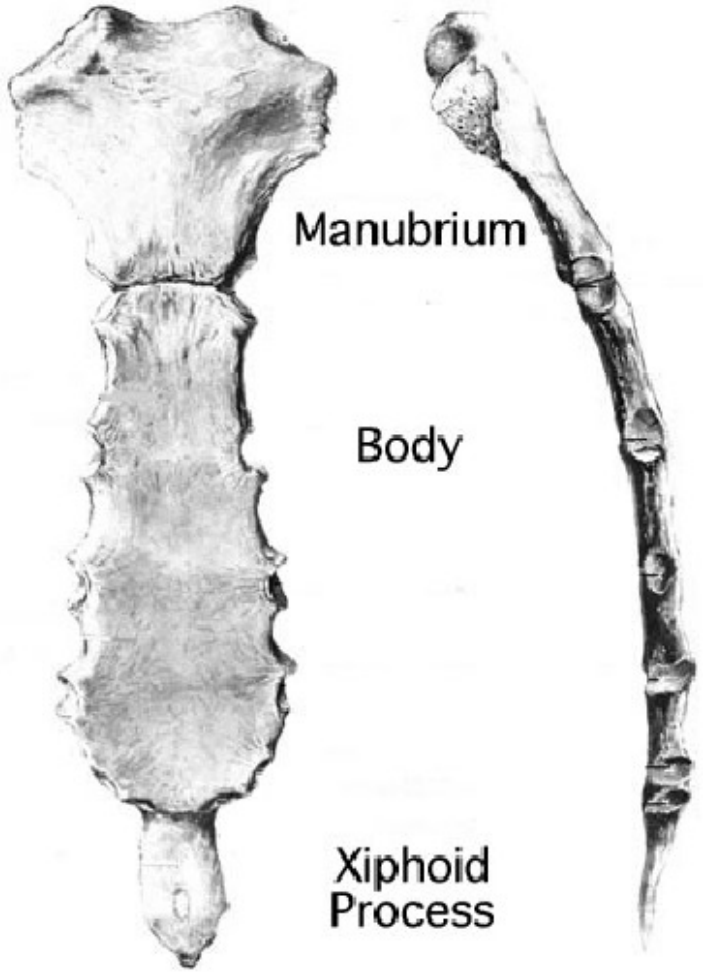


80 Axial Skeleton

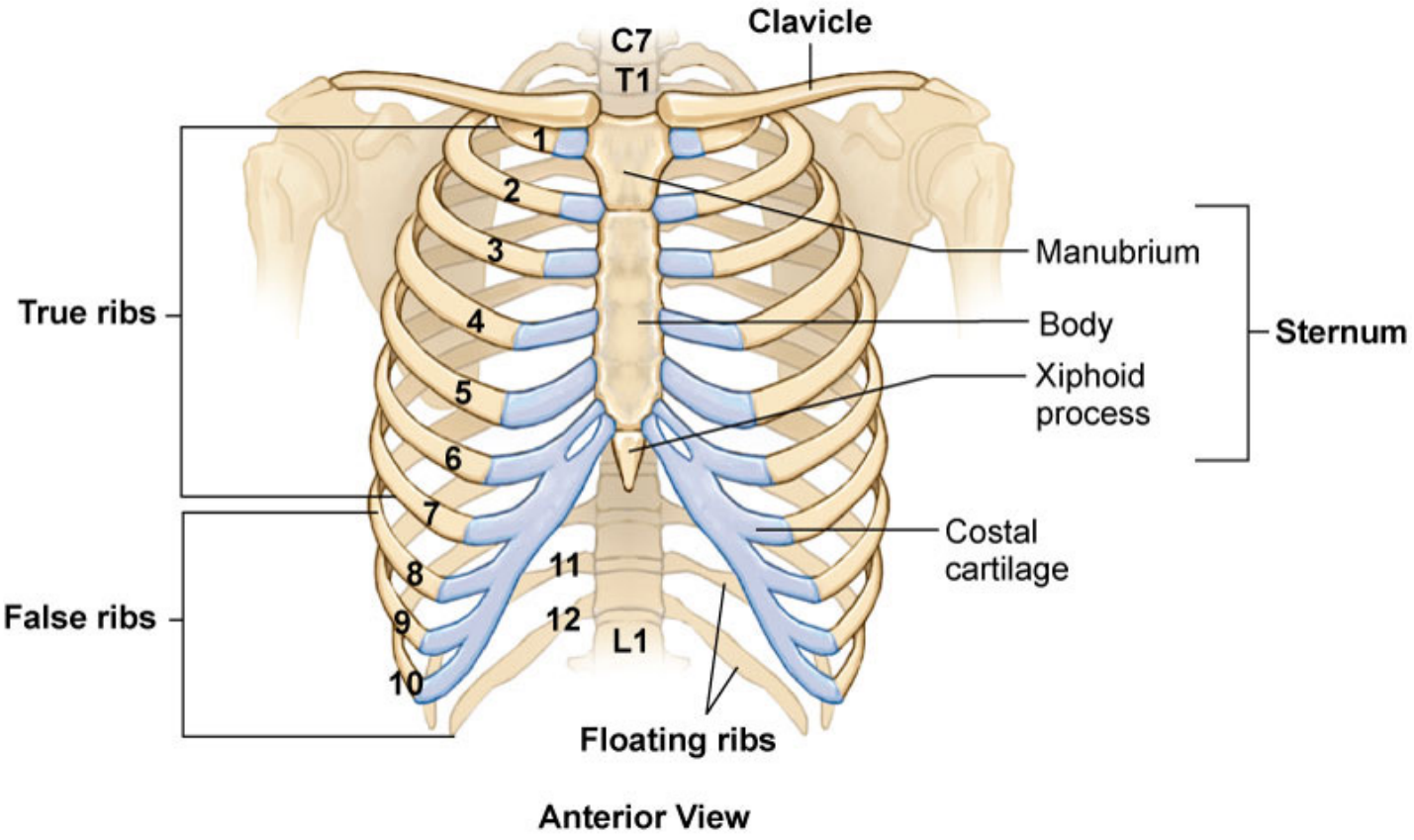
1 Sternum



80 Axial Skeleton

24 Ribs

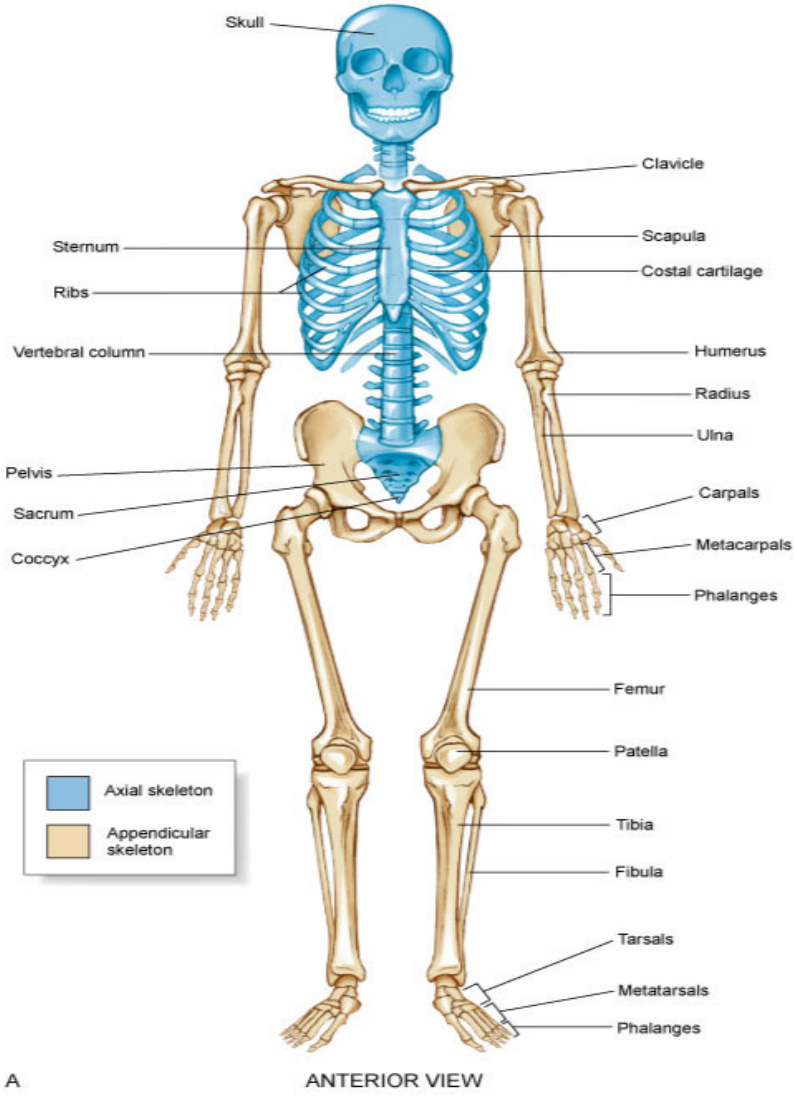
14 True ribs	Directly attaching to the sternum by way of cartilage.
10 False ribs	Not *directly* attached to the sternum. Ribs 8, 9, and 10 share an attachment. Ribs 11 and 12 are floating.



126 Appendicular Skeleton

126 Appendicular Skeleton

4 Shoulder Girdle
60 Upper Extremity
2 Pelvic Girdle
60 Lower Extremity

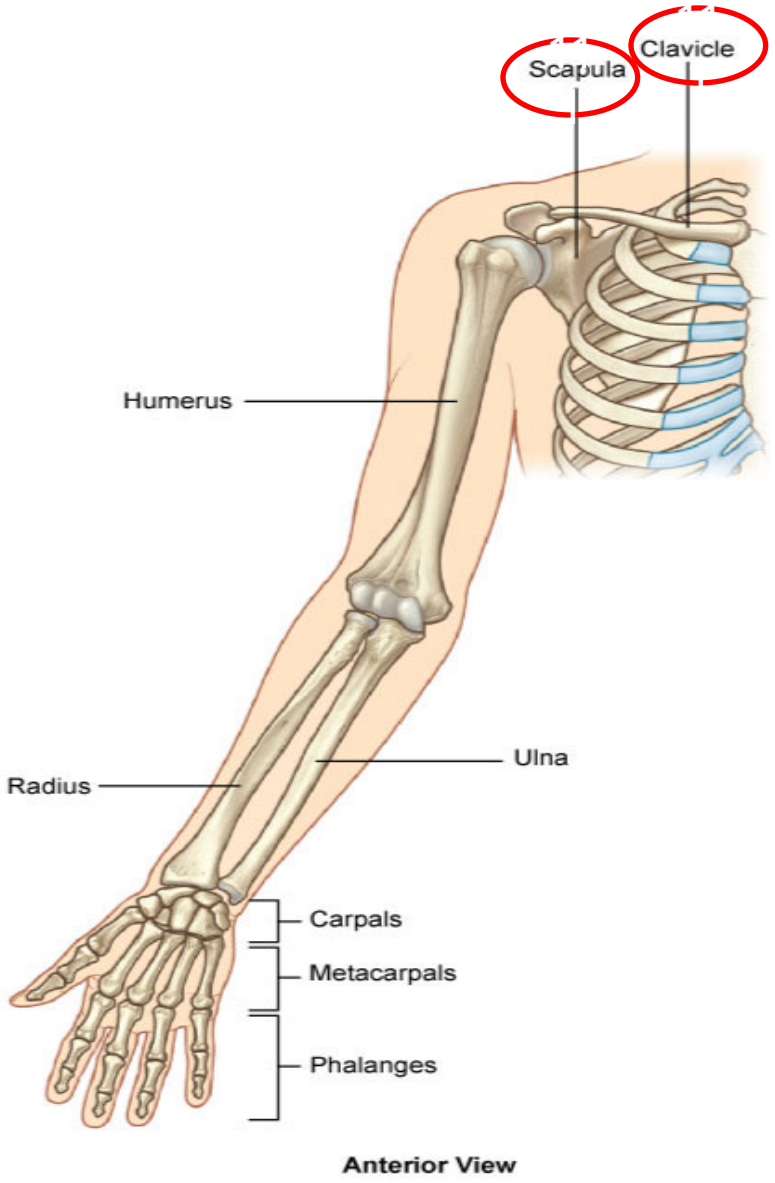


126 Appendicular Skeleton

4 Shoulder Girdle

clavicle 2

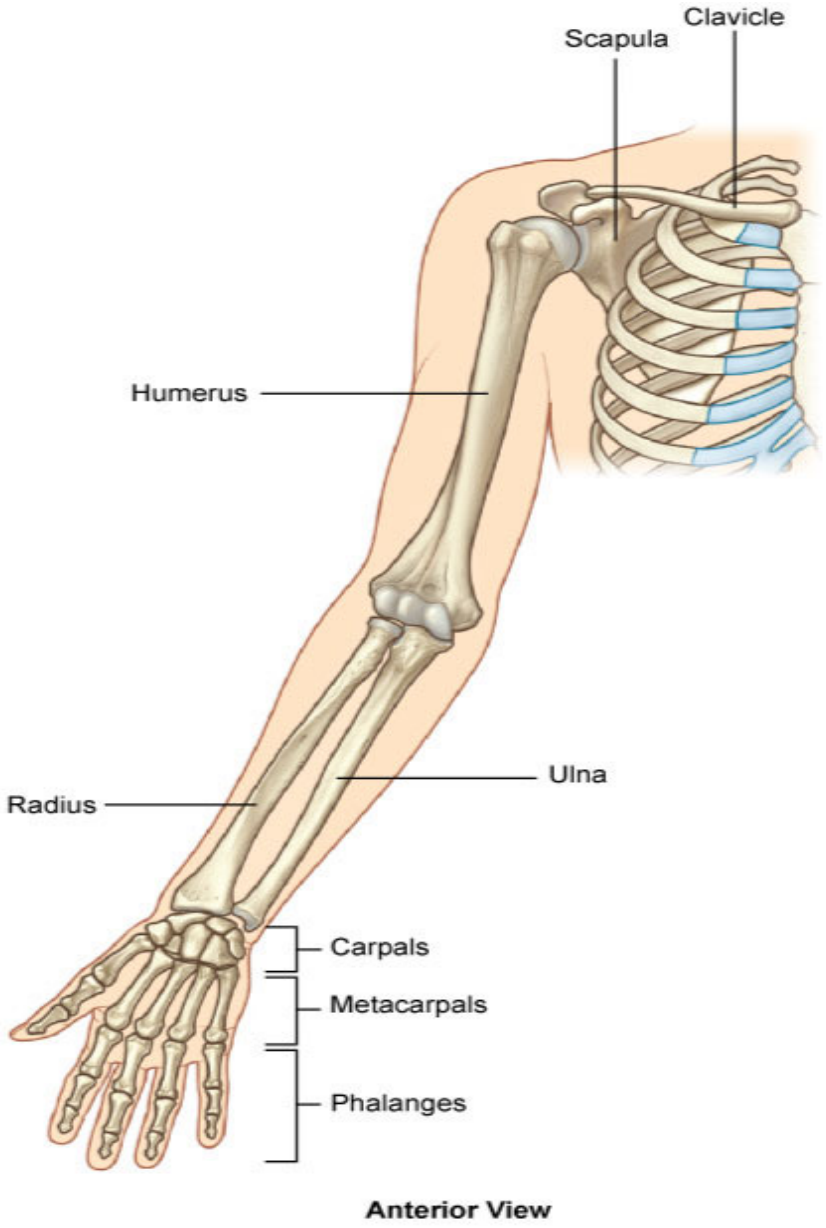
scapula 2

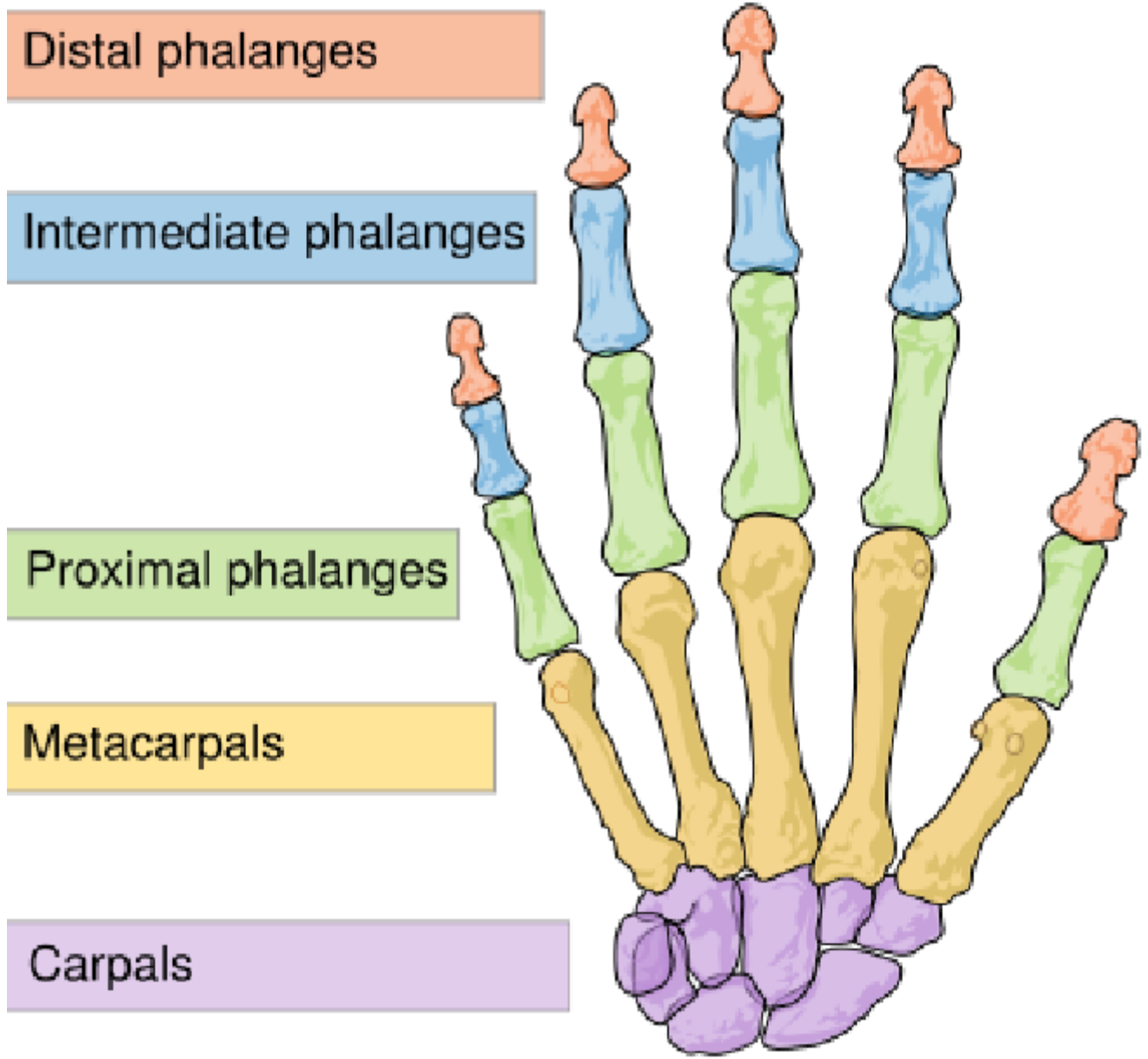


126 Appendicular Skeleton

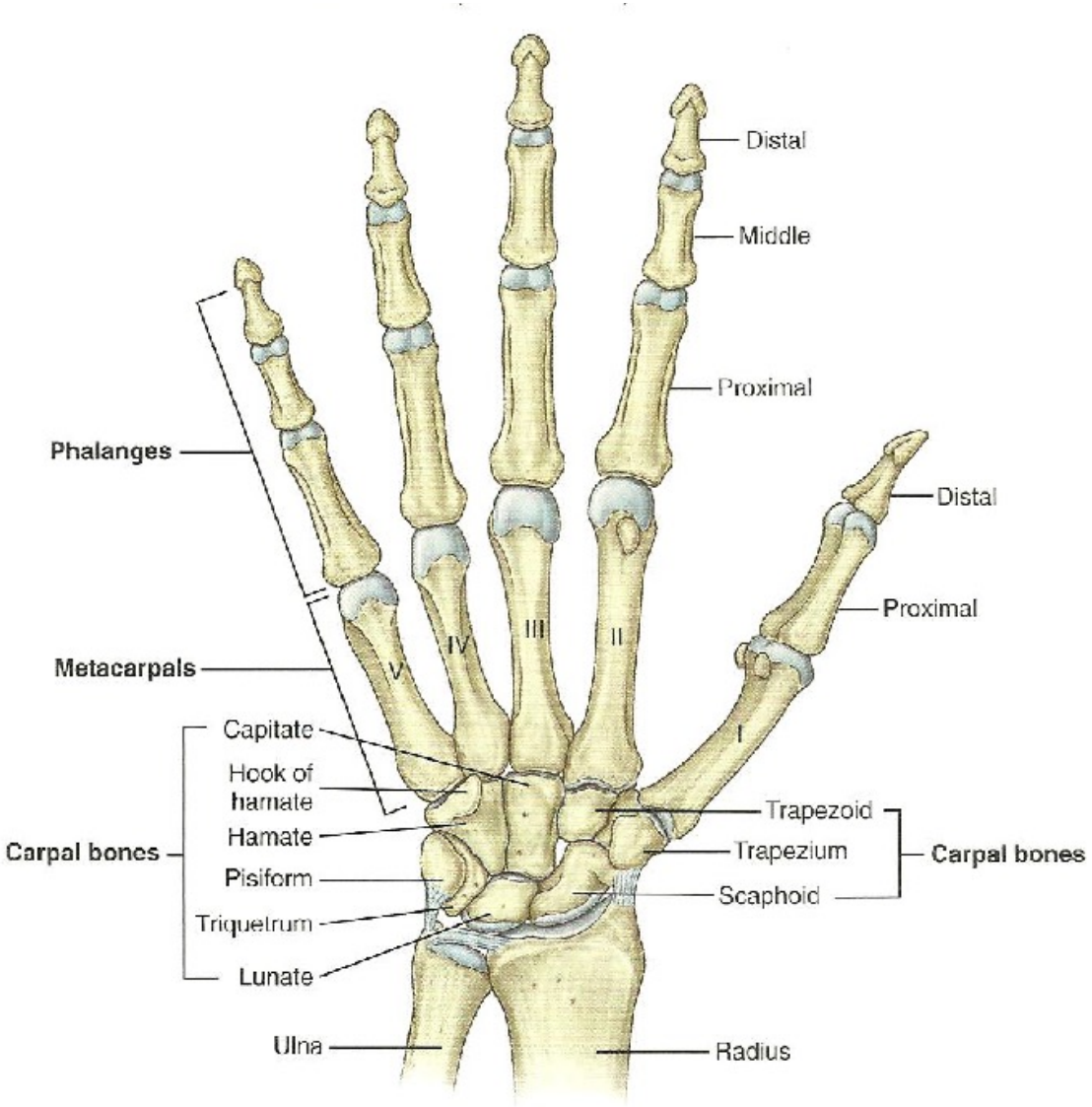
60 Upper Extremity

- **humerus 2**
- **radius 2**
- **ulna 2**
- **carpals 16**
- **metacarpals 10**
- **phalanges 28**




Distal phalanges
Intermediate phalanges
Proximal phalanges
Metacarpals
Carpals

126 Appendicular Skeleton



Anterior/Palmar View of Right Hand

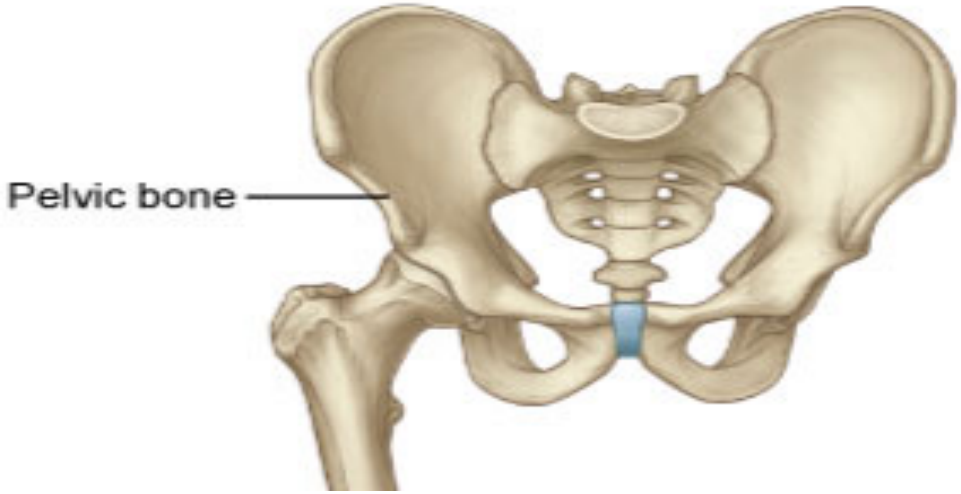
126 Appendicular Skeleton

2 Pelvic Girdle

pelvic bone

AKA: innominate bone

AKA: os coxae or coxal bone



126 Appendicular Skeleton

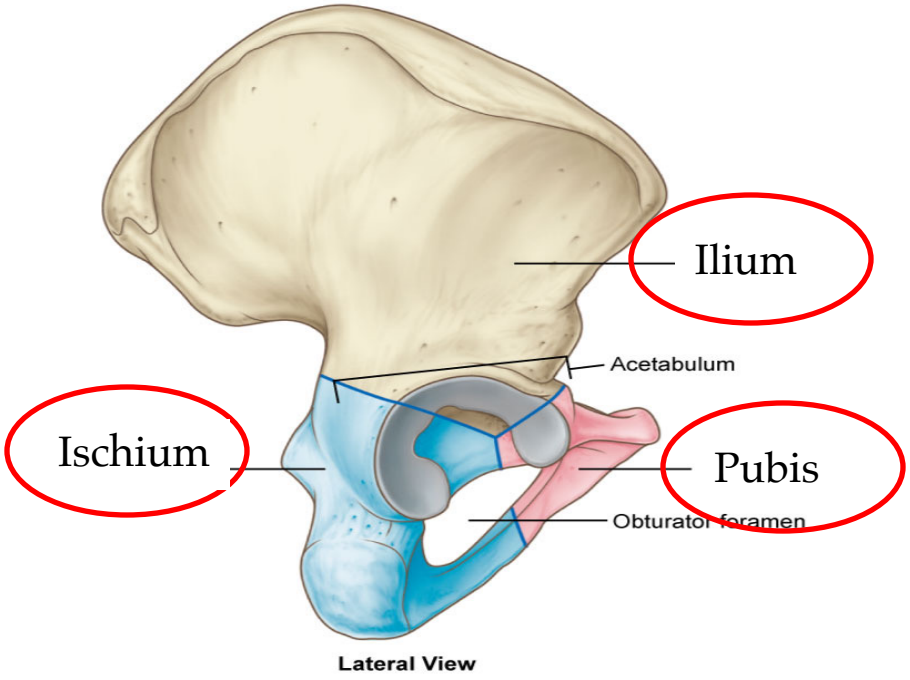
2 Pelvic Girdle

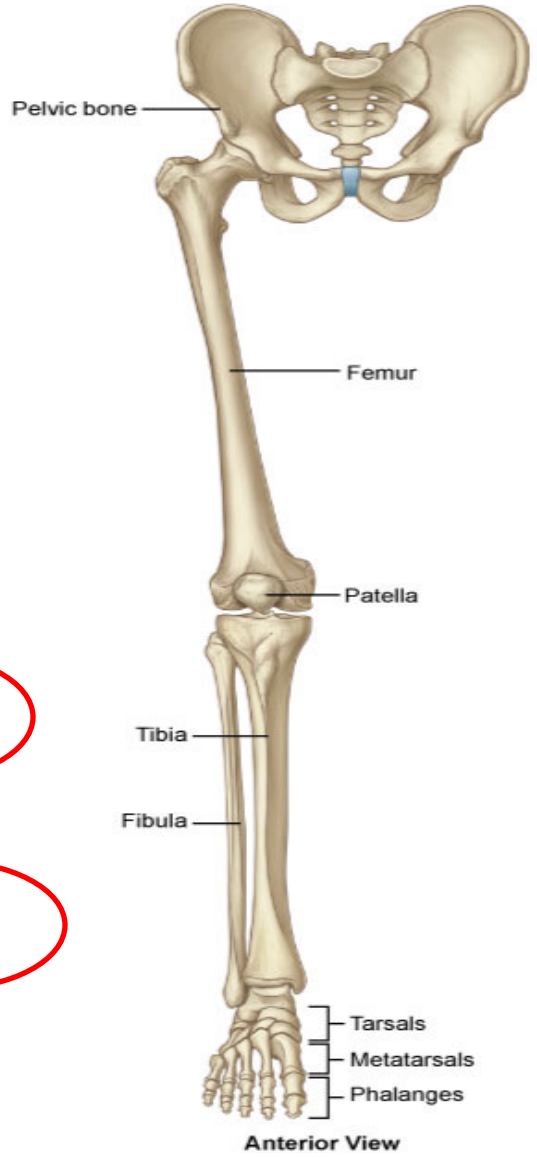
pelvic bone

ilium

ischium

pubis

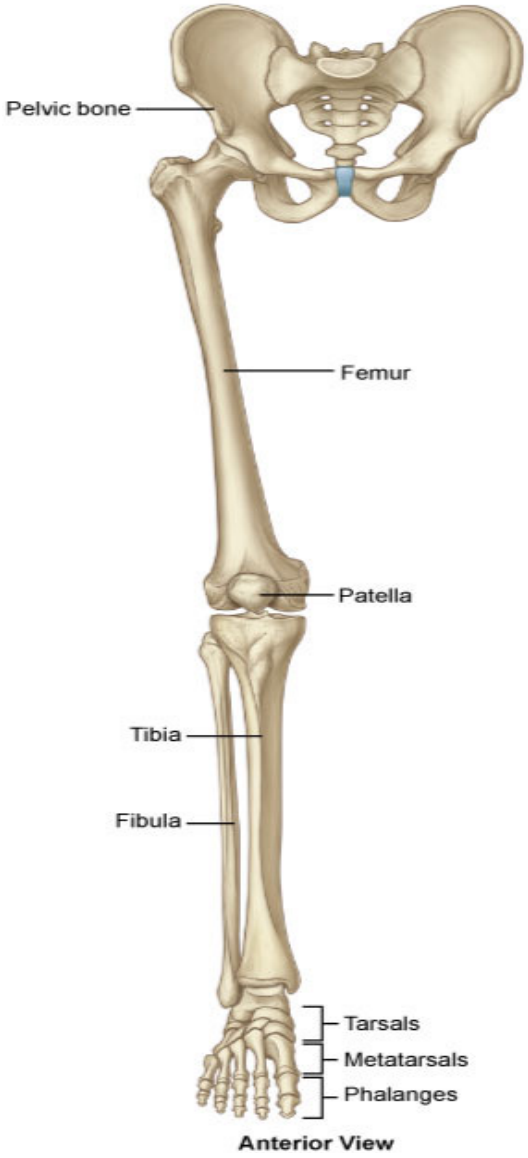


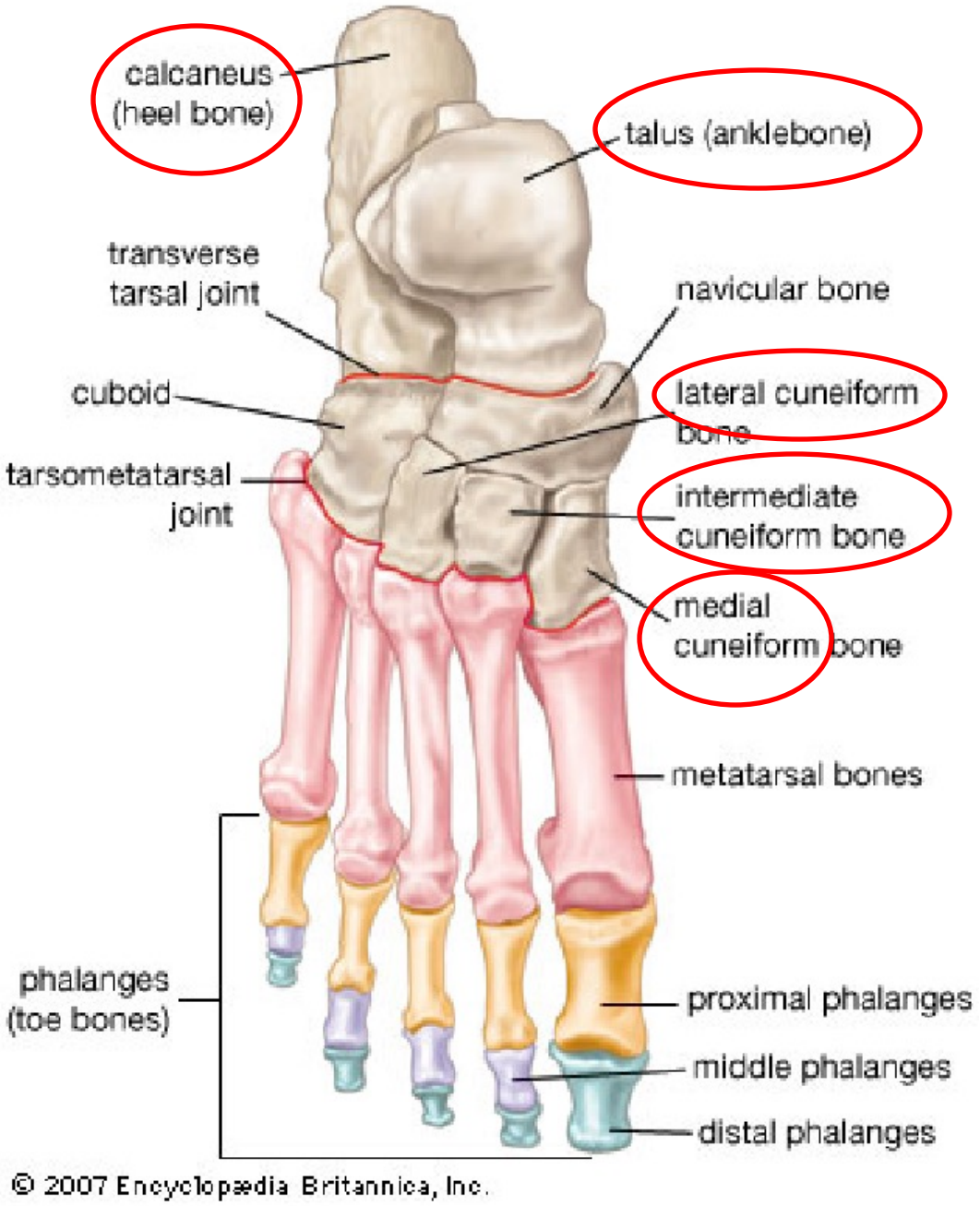


126 Appendicular Skeleton

60 Lower Extremity

- **femur 2**
- **patella 2**
- **tibia 2**
- **fibula 2**
- **tarsals 14**
- **metatarsals 10**
- **phalanges 28**




calcaneus (heel bone)
talus (anklebone)
transverse tarsal joint
navicular bone
cuboid
lateral cuneiform bone
tarsometatarsal joint
intermediate cuneiform bone
medial cuneiform bone
metatarsal bones
phalanges (toe bones)
proximal phalanges
middle phalanges
distal phalanges
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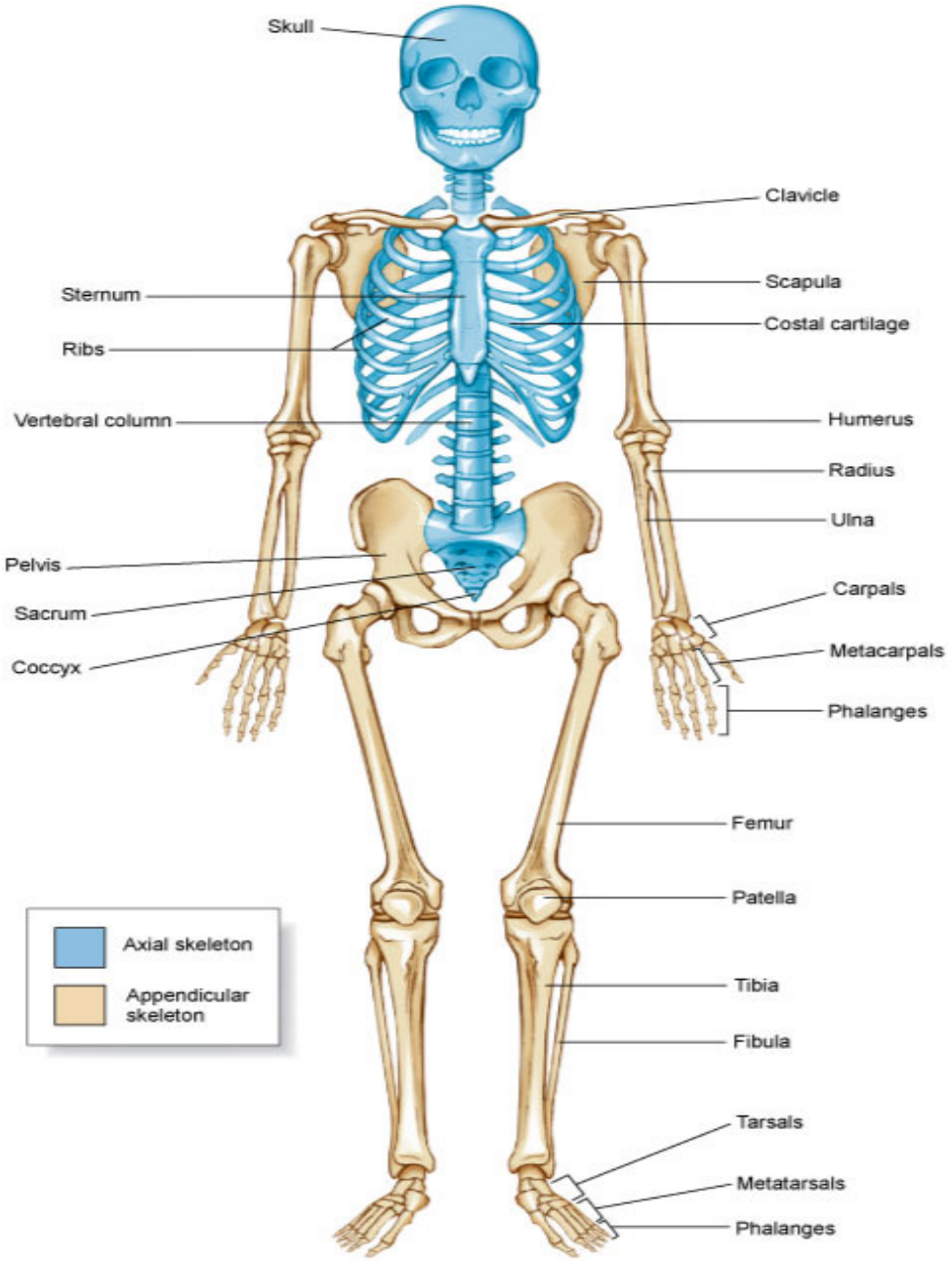

A ANTERIOR VIEW

22a A&P:

Skeletal System - Appendicular and Axial Divisions