

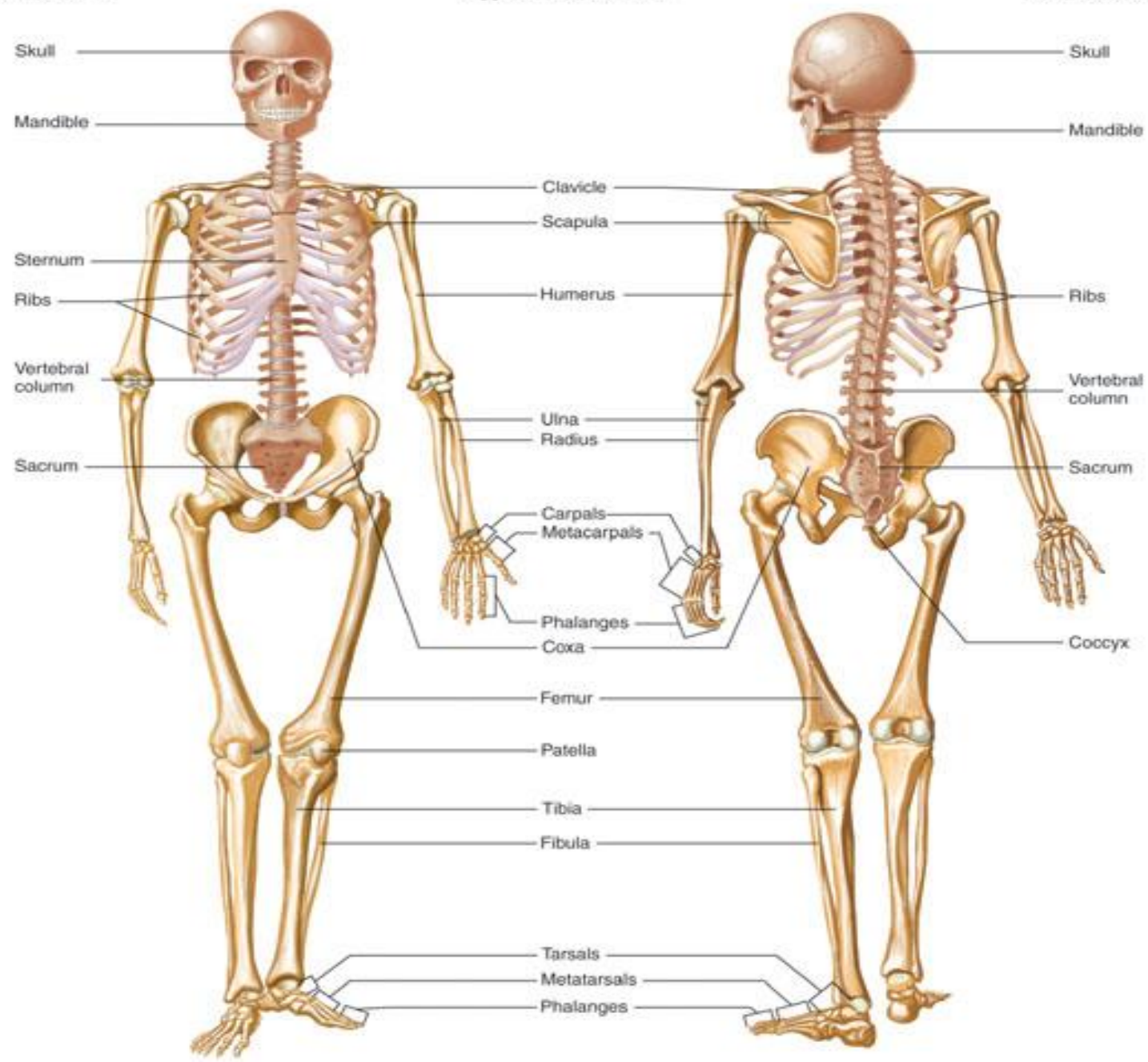
LESSON 11

- **Appendicular Skeleton (1)**

Axial Skeleton

Appendicular Skeleton

Axial Skeleton



Anterior

Posterior

ANSWERS:

Bones of the Axial & Appendicular Skeleton

1. cranium

2. mandible

3. sternum

4. ribs

5. vertebra

6. sacrum

7. clavicle

8. scapula

9. humerus

10. ulna

11. radius

12. carpals

13. metacarpals

14. phalanges

15. coxa

16. femur

17. patella

18. tibia

19. fibula

20. tarsals

21. metatarsals

22. phalanges

23. cranium

24. mandible

25. skull

26. ribs

27. vertebra

28. sacrum

29. coccyx

30. talus

31. calcaneus

The Appendicular Skeleton (not blue)

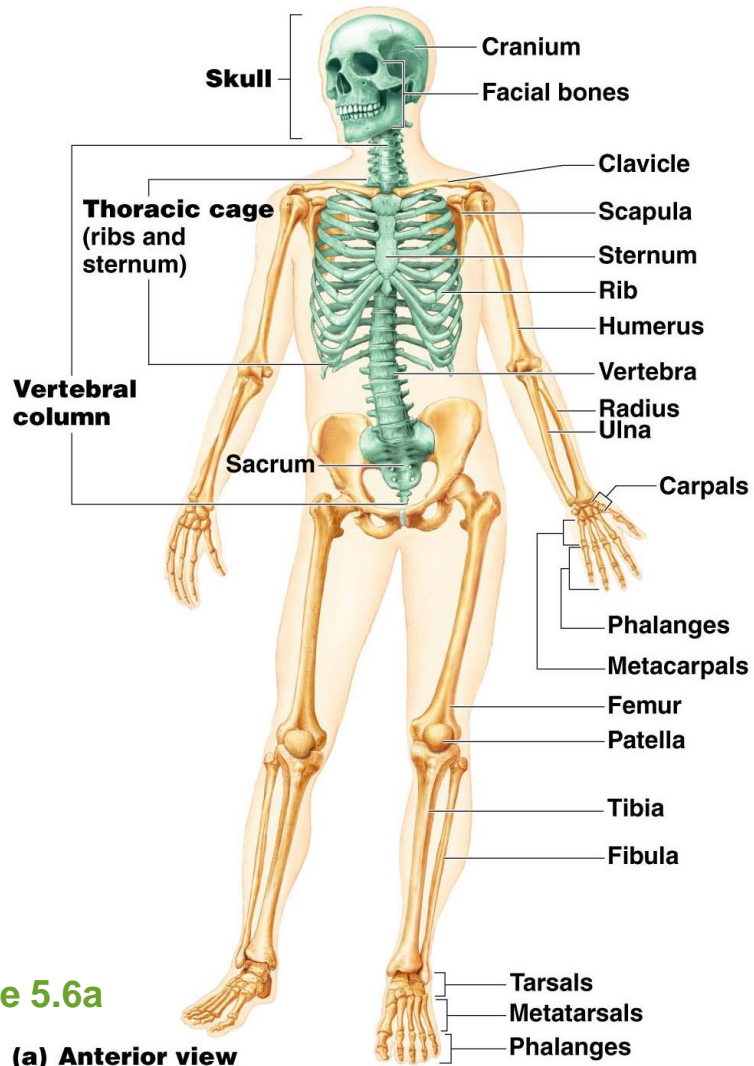


Figure 5.6a

(a) Anterior view

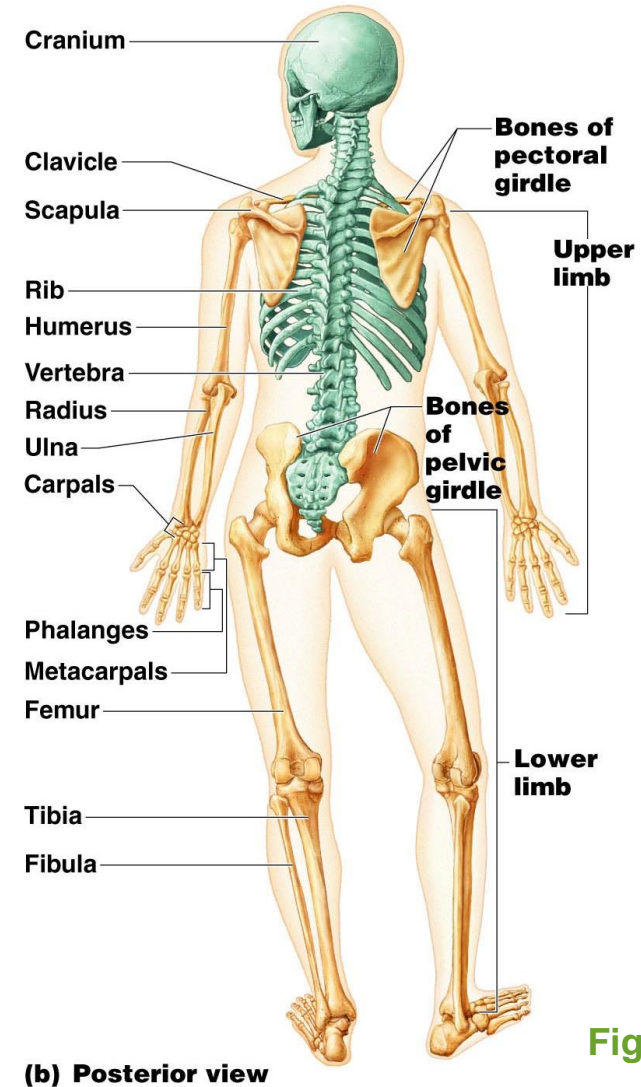
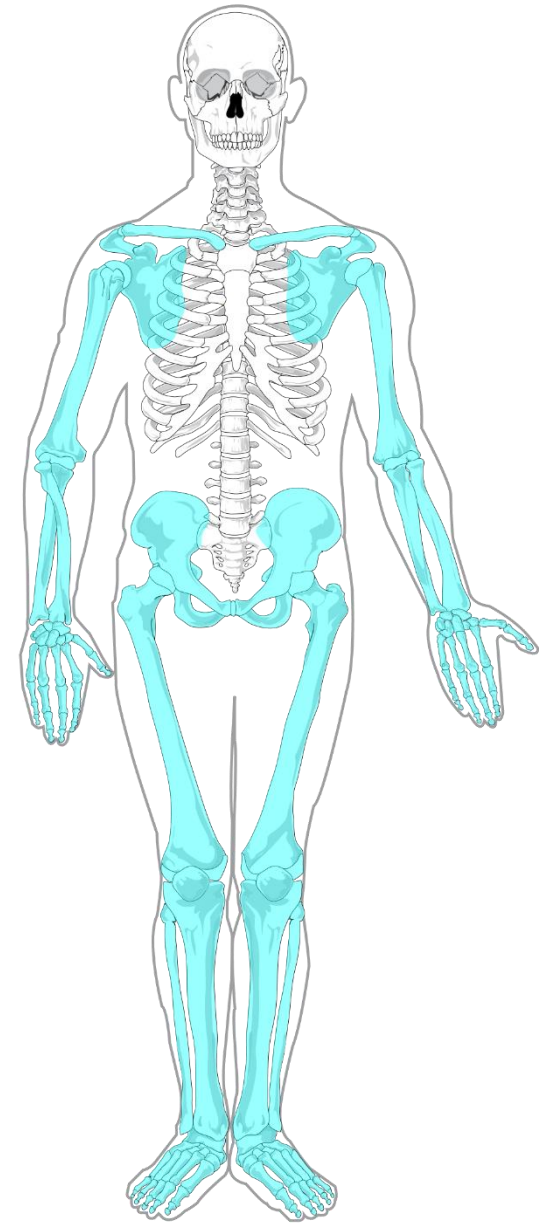


Figure 5.6b

The Appendicular Skeleton

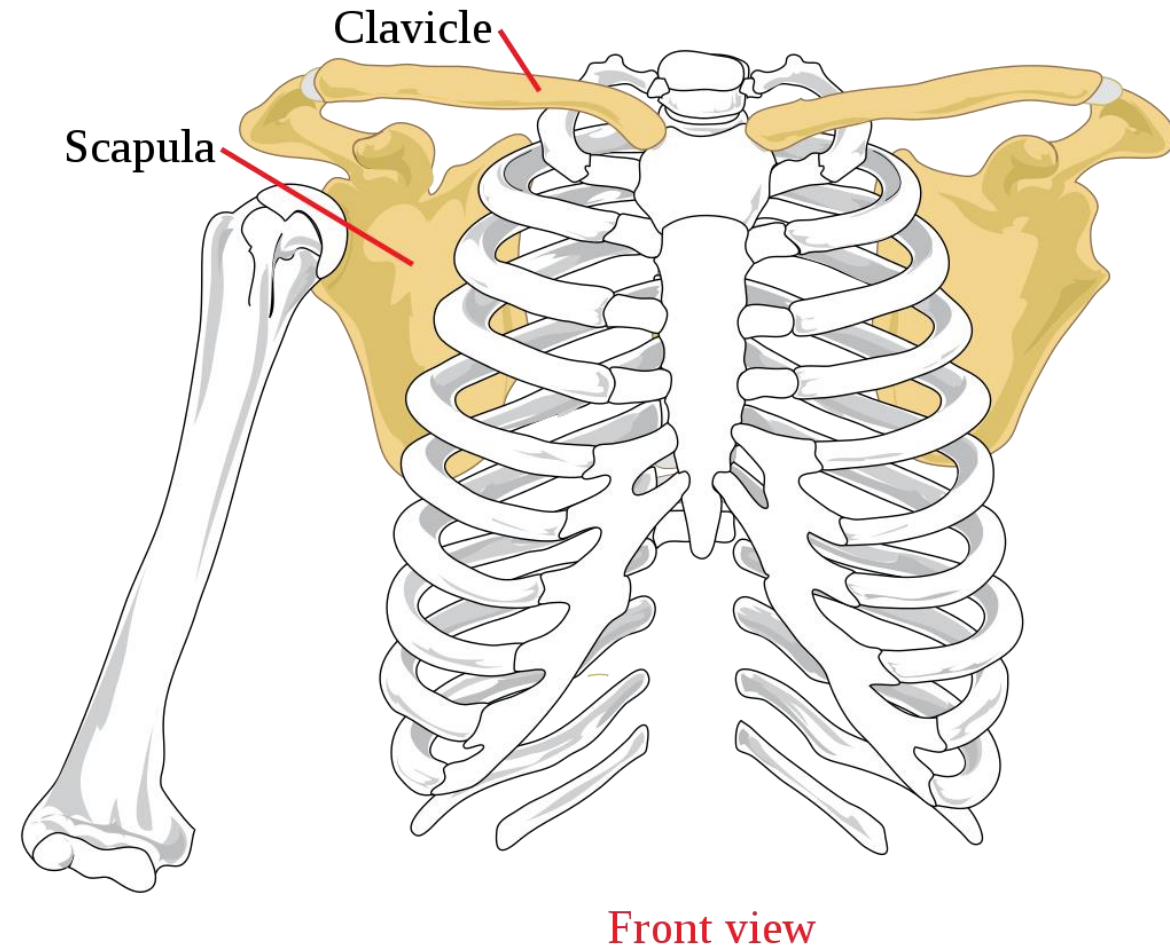
- Composed of **126** bones
 - Limbs (appendages)
 - **Pectoral girdle**
 - **Pelvic girdle**



The Pectoral (Shoulder) Girdle

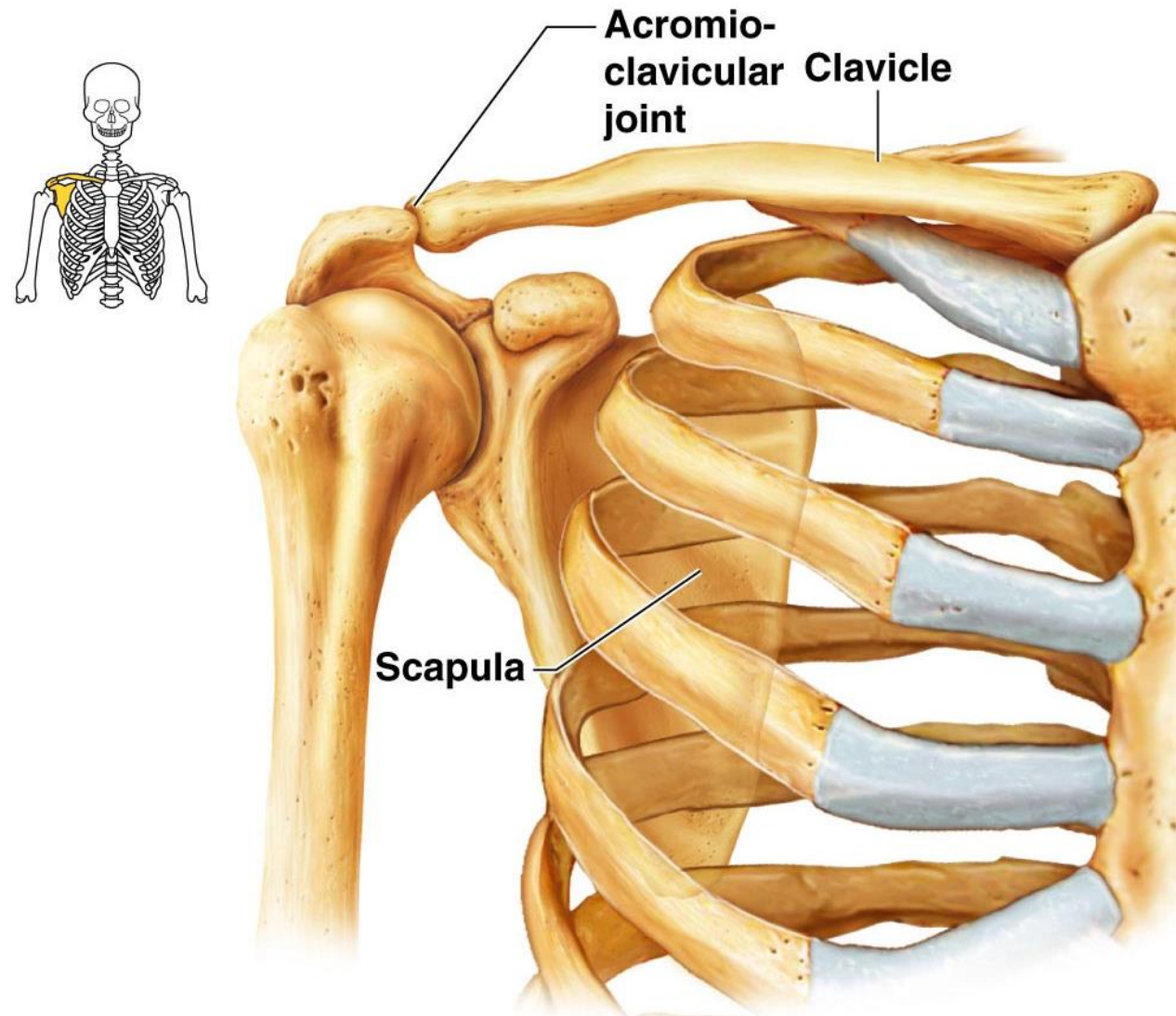
Pectoral & Pelvic
Girdle Song

- **Composed of two bones**
 - **Clavicle (collar bone)**
 - **Scapula (shoulder blade)**
- **These bones allow the upper limb to have exceptionally free movement**



Bones of the Shoulder Girdle

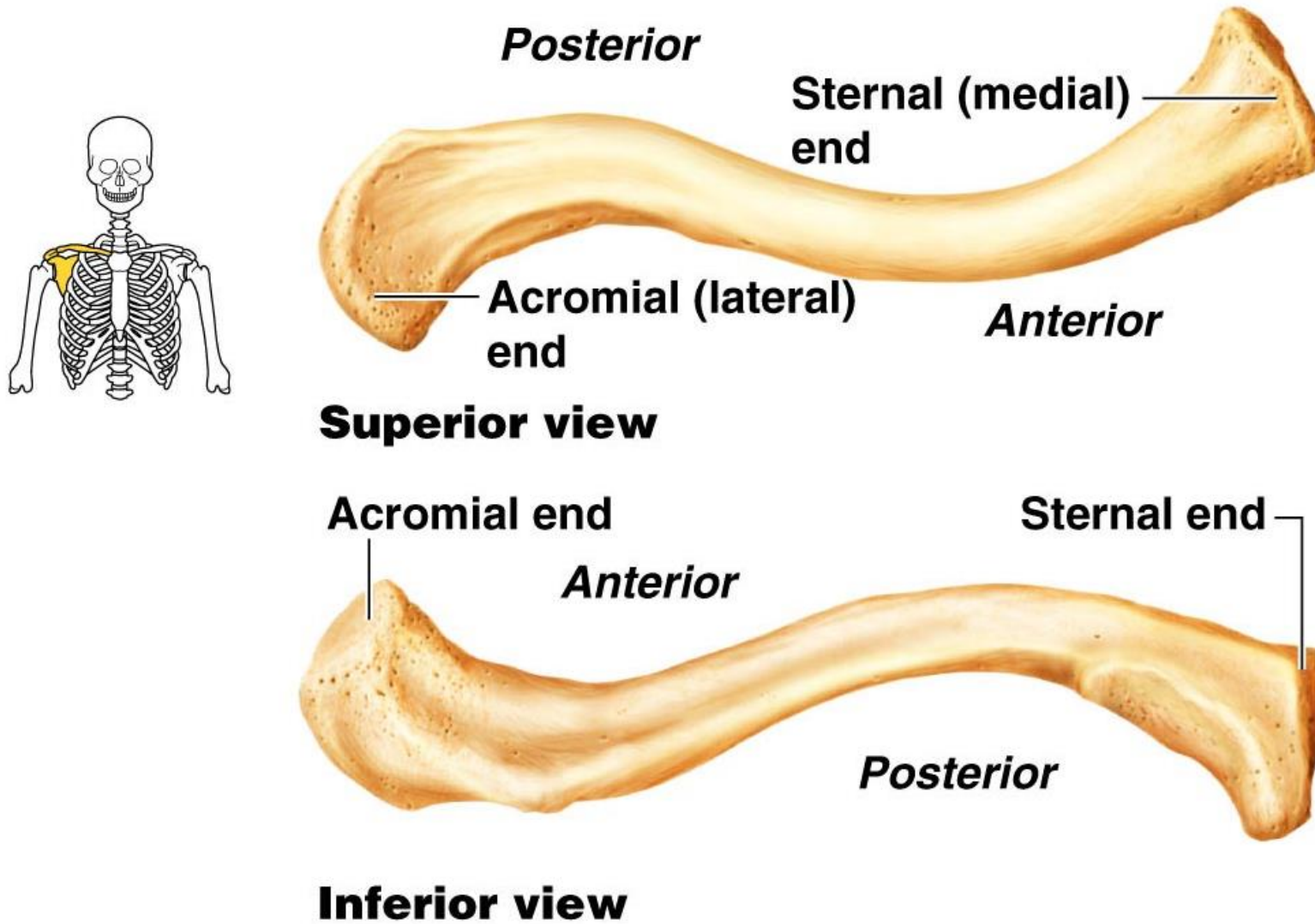
Figure 5.21a



(a) Articulated right shoulder (pectoral) girdle showing the relationship to bones of the thorax and sternum

Bones of the Shoulder Girdle (con't)

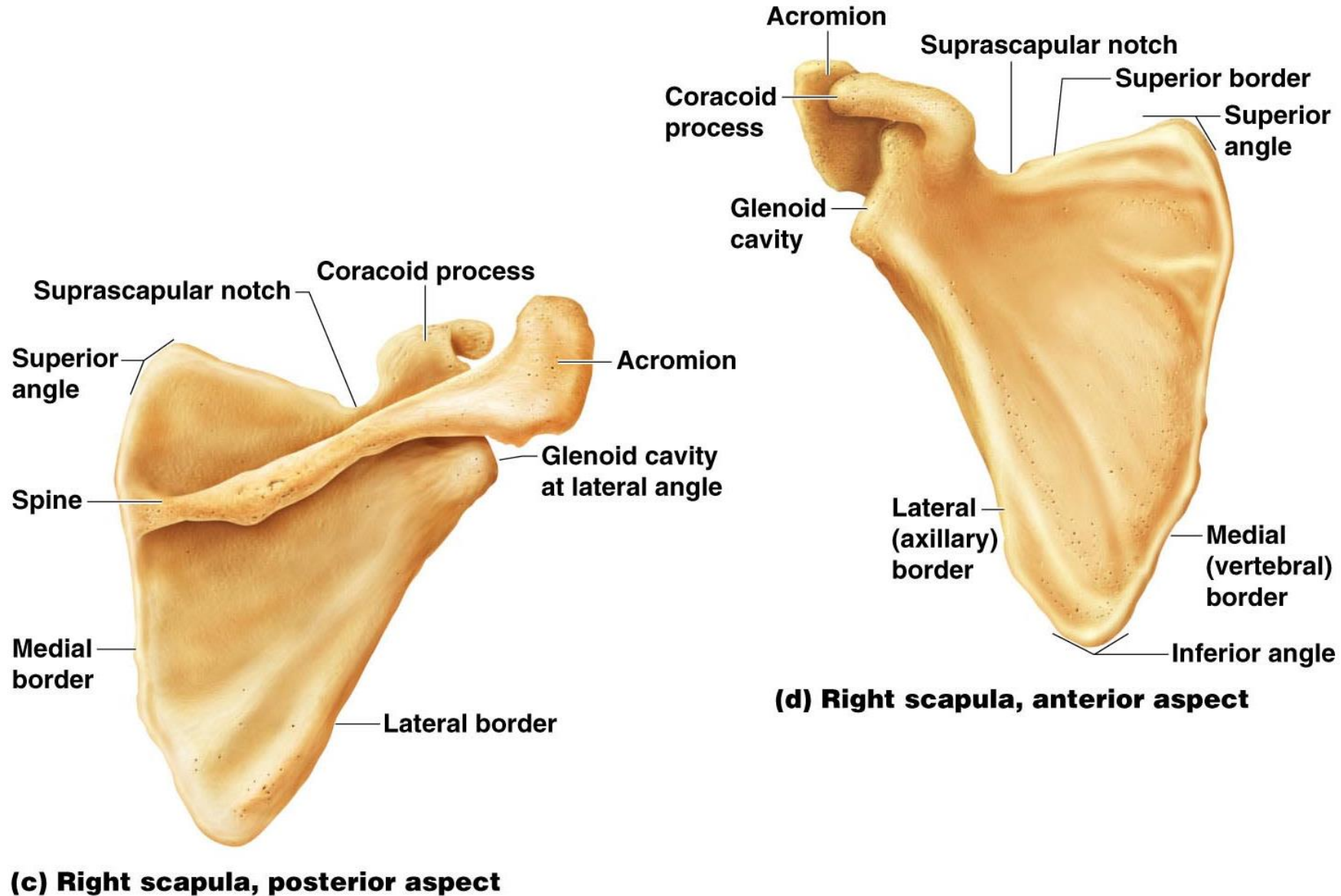
Figure 5.21b



(b) Right clavicle, superior and inferior views

Bones of the Shoulder Girdle (con't)

Figure 5.21c-d



Bones of the Upper Limbs

Arm & Leg Bones Song

■ Humerus

- **Forms the arm**
- **Single bone**

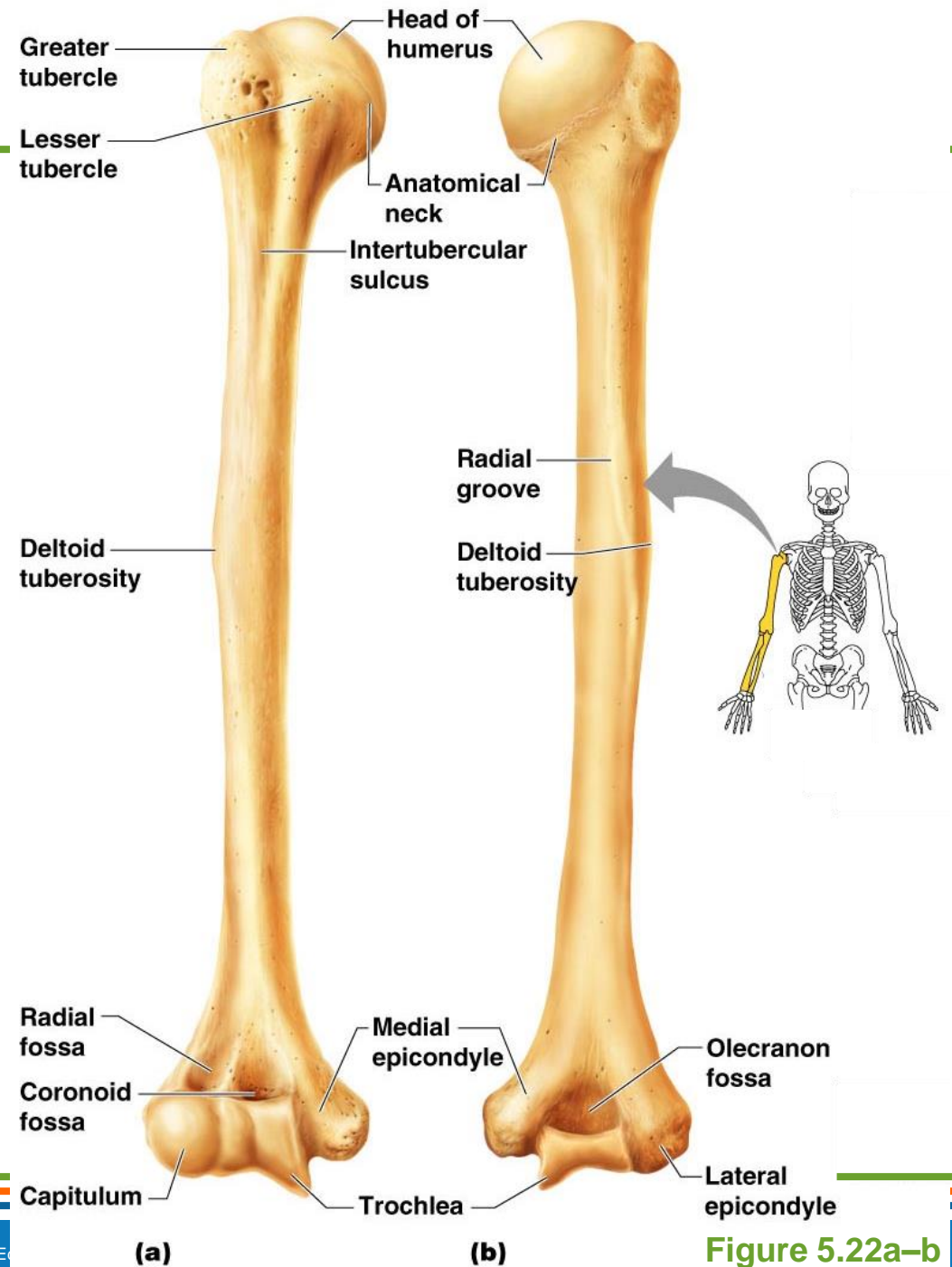


Figure 5.22a–b

Bones of the Upper Limbs

- The forearm has two bones
 - Ulna
 - **Medial** bone in anatomical position
 - Radius
 - **Lateral** bone in anatomical position

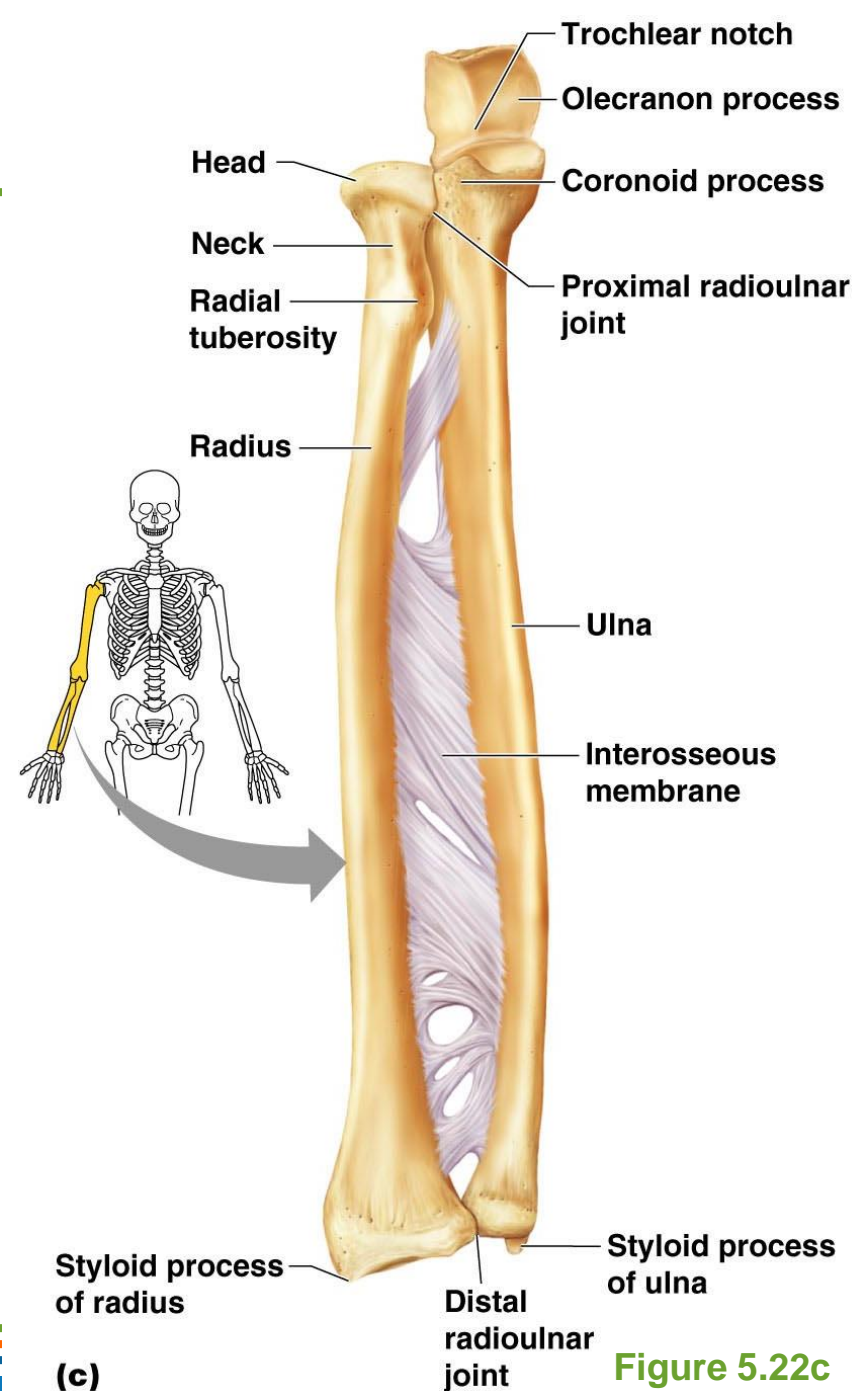


Figure 5.22c

Bones of the Upper Limbs

Bones of Hands & Feet Song

- The hand
 - Carpals: **wrist**
 - Metacarpals: **palm**
 - Phalanges: **fingers**

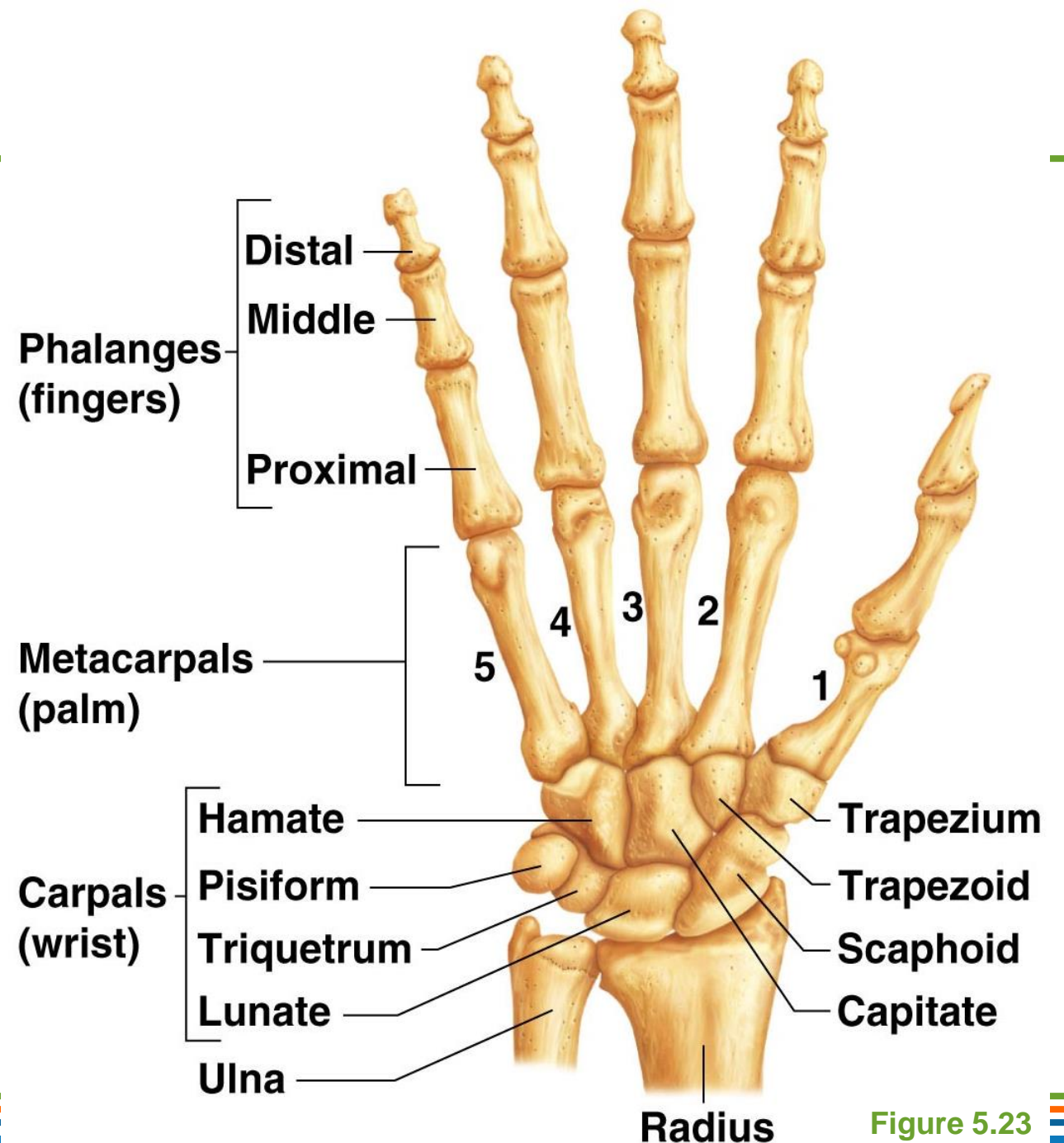
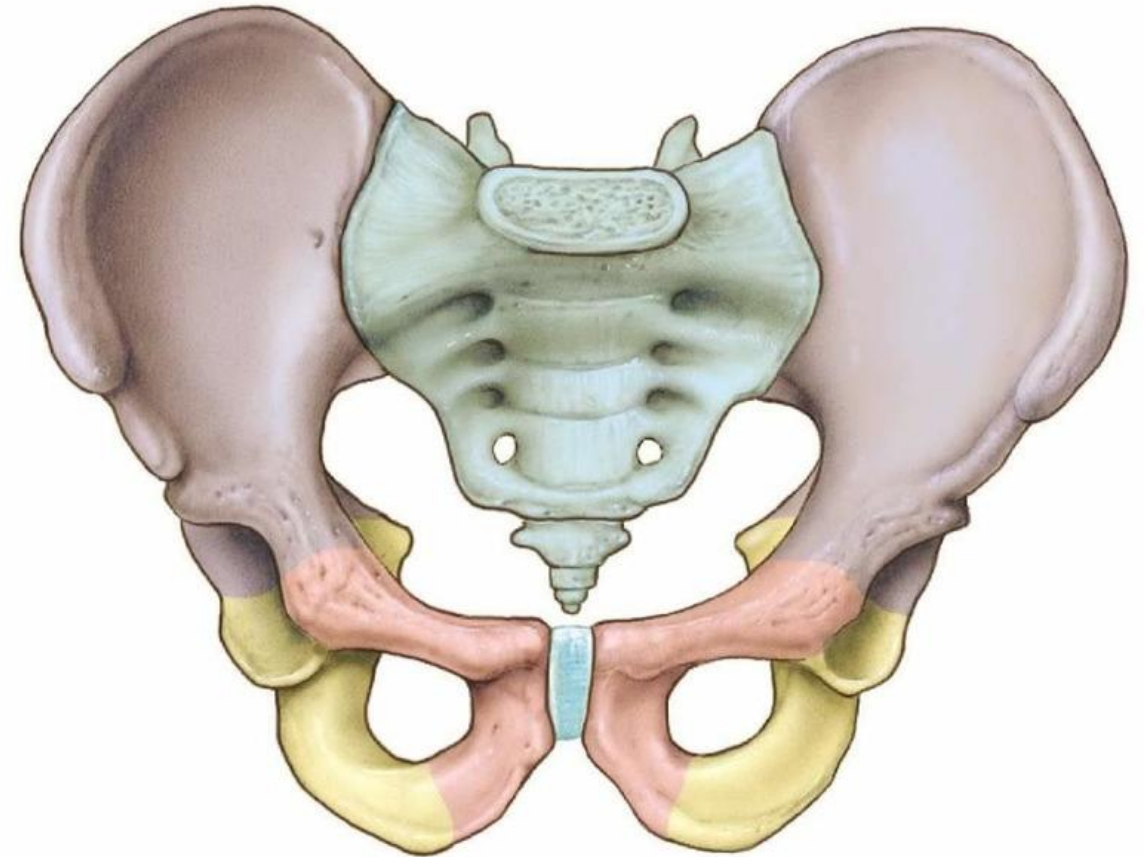


Figure 5.23

Bones of the Pelvic Girdle

- Formed by two **coxal** (ossa coxae) bones
- Composed of three pairs of fused bones
 - 1) **Ilium**
 - 2) **Ischium**
 - 3) **Pubis**



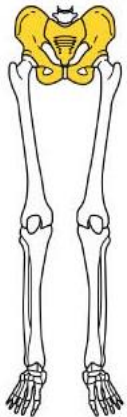
(a)

Bones of the Pelvic Girdle

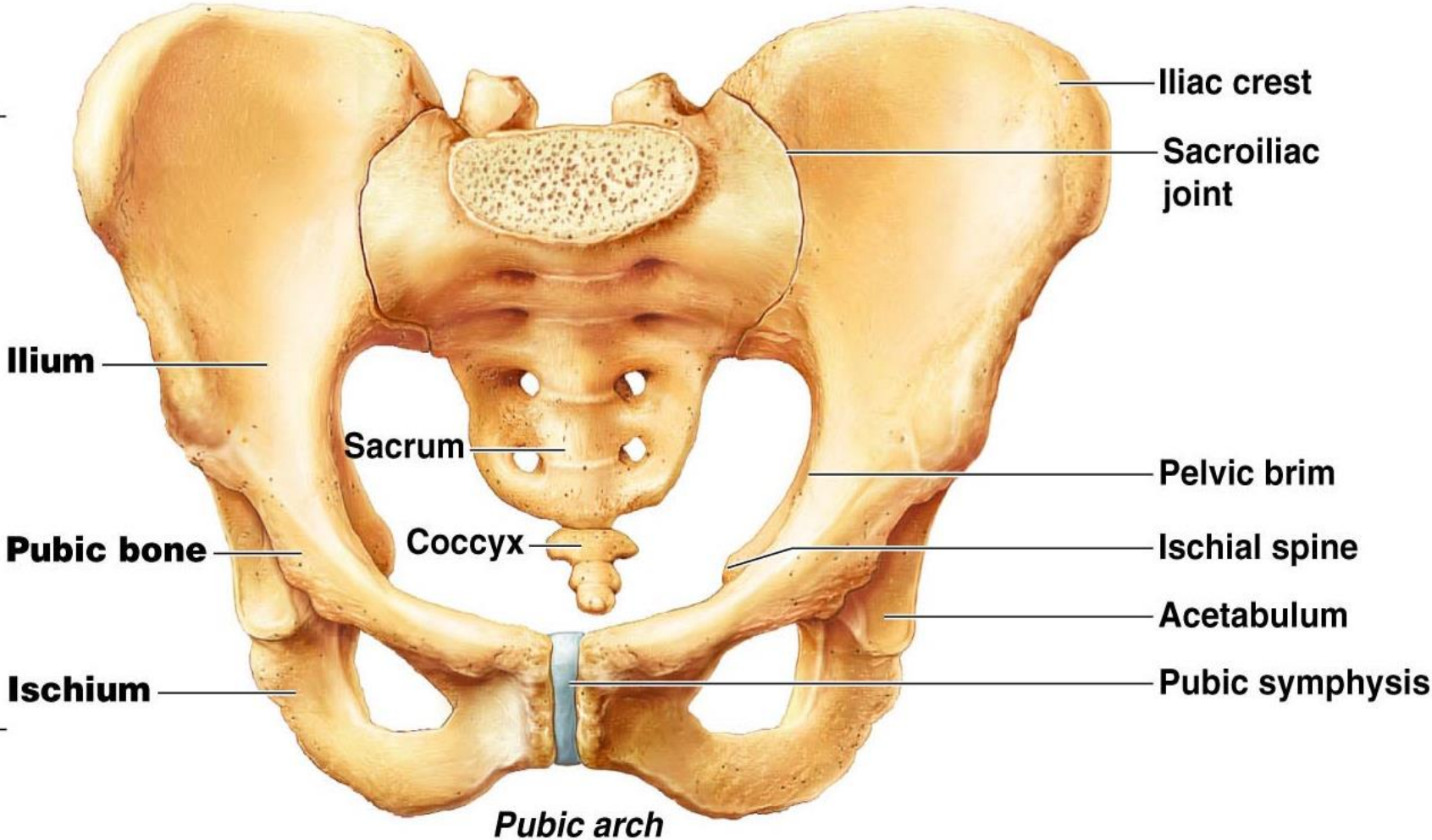
- Total weight of the upper body rests on the **pelvis**
- It protects several organs
 - **Reproductive organs**
 - **Urinary bladder**
 - **Part of the large intestine**

The Pelvis

Figure 5.24a



Coxal bone
(or hip bone)



(a)

The Pelvis: Right Coxal Bone

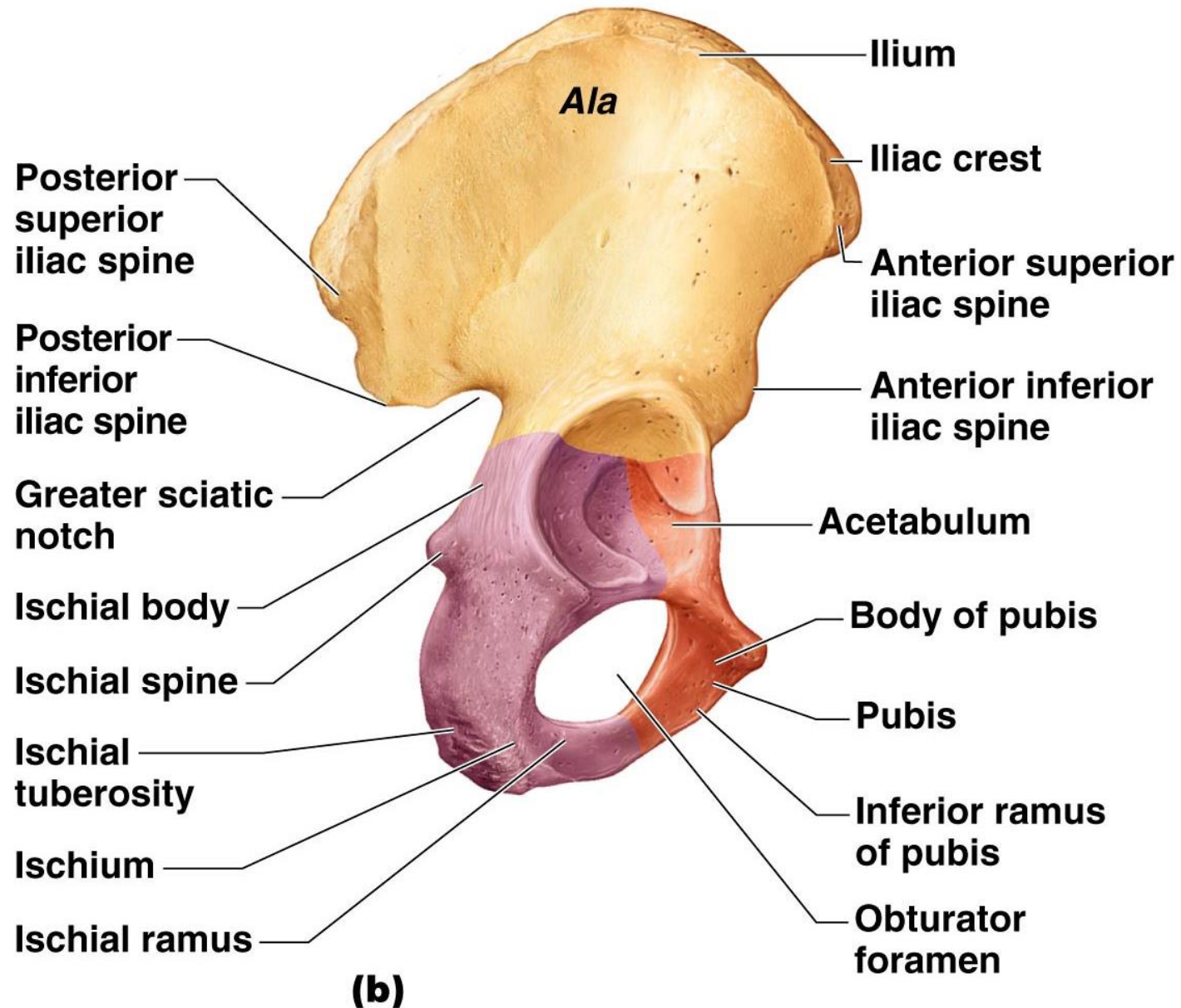


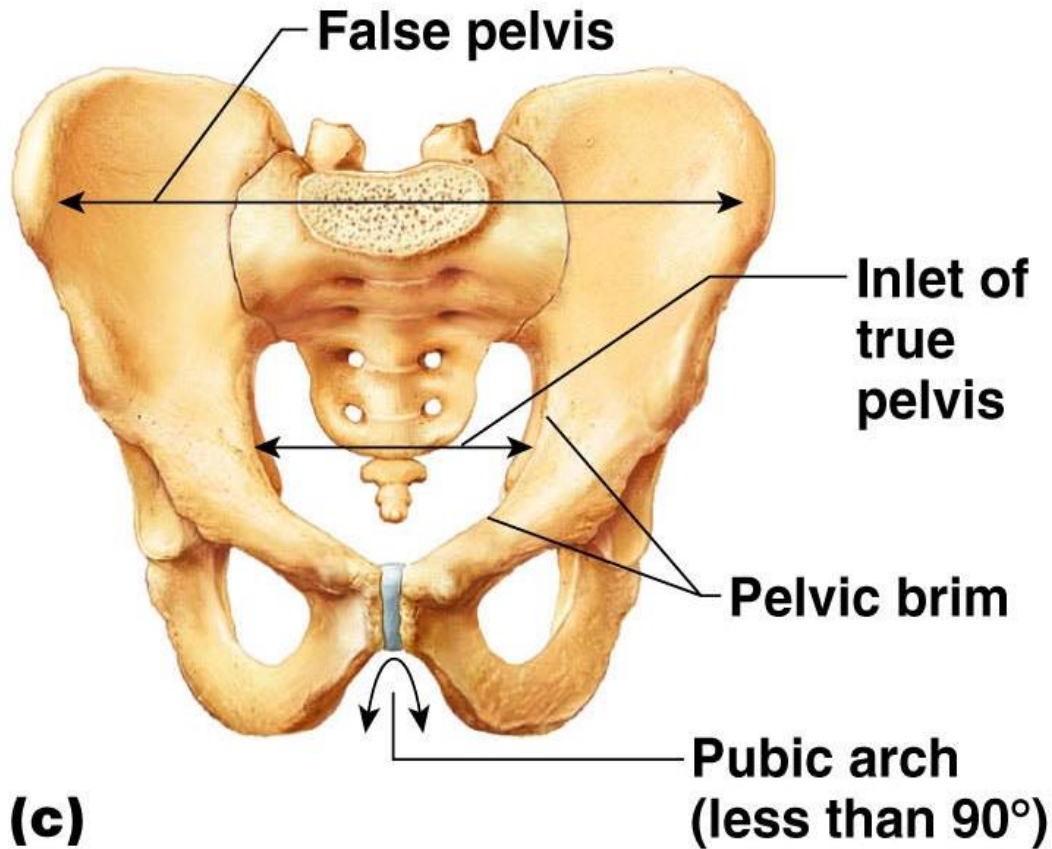
Figure 5.24b

Gender Differences of the Pelvis

1. The female inlet is **larger** and more **circular**
2. The female pelvis is **shallower**, and the bones are **lighter** and **thinner**
3. The female ilia flare more **laterally**
4. The female sacrum is **shorter** and less **curved**
5. The female ischial spines are **shorter** and farther apart; thus the outlet is larger
6. The female pubic arch is more **rounded** because the angle of the pubic arch is greater

Gender Differences of the Pelvis

Male



Female

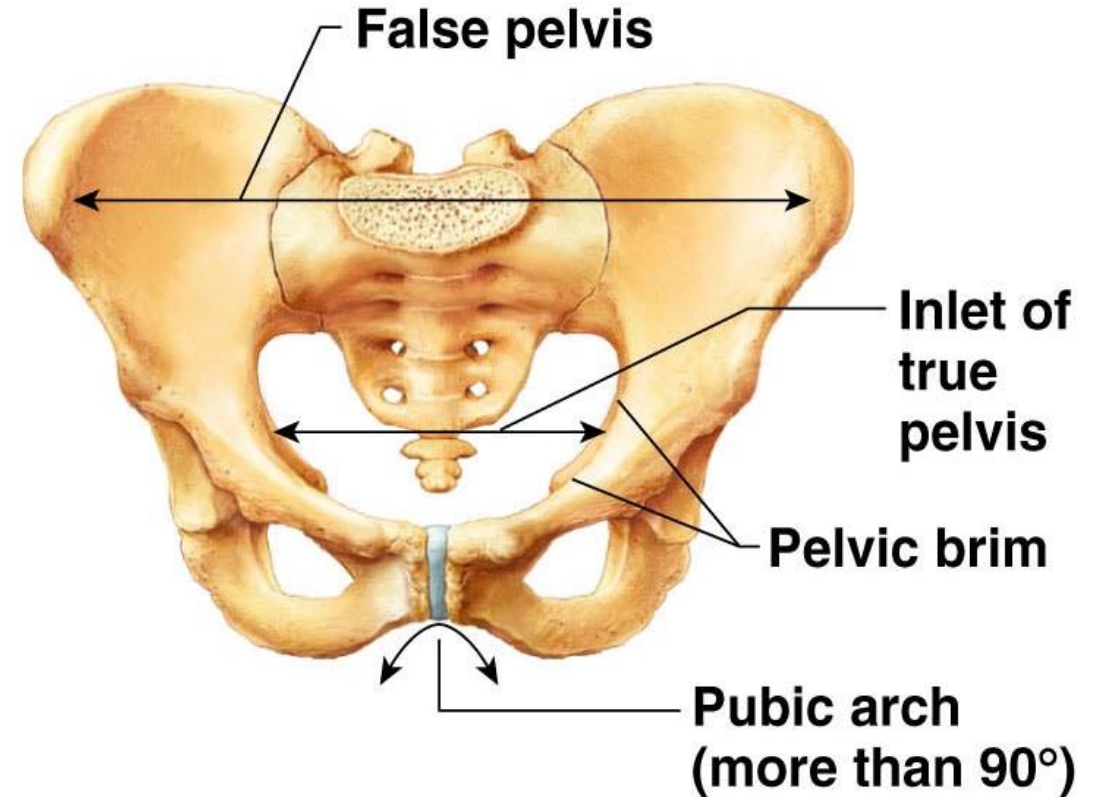


Figure 5.24c

Bones of the Lower Limbs

Arm & Leg Bones Song

- The thigh has one bone
 - Femur
 - heaviest, strongest bone in the body

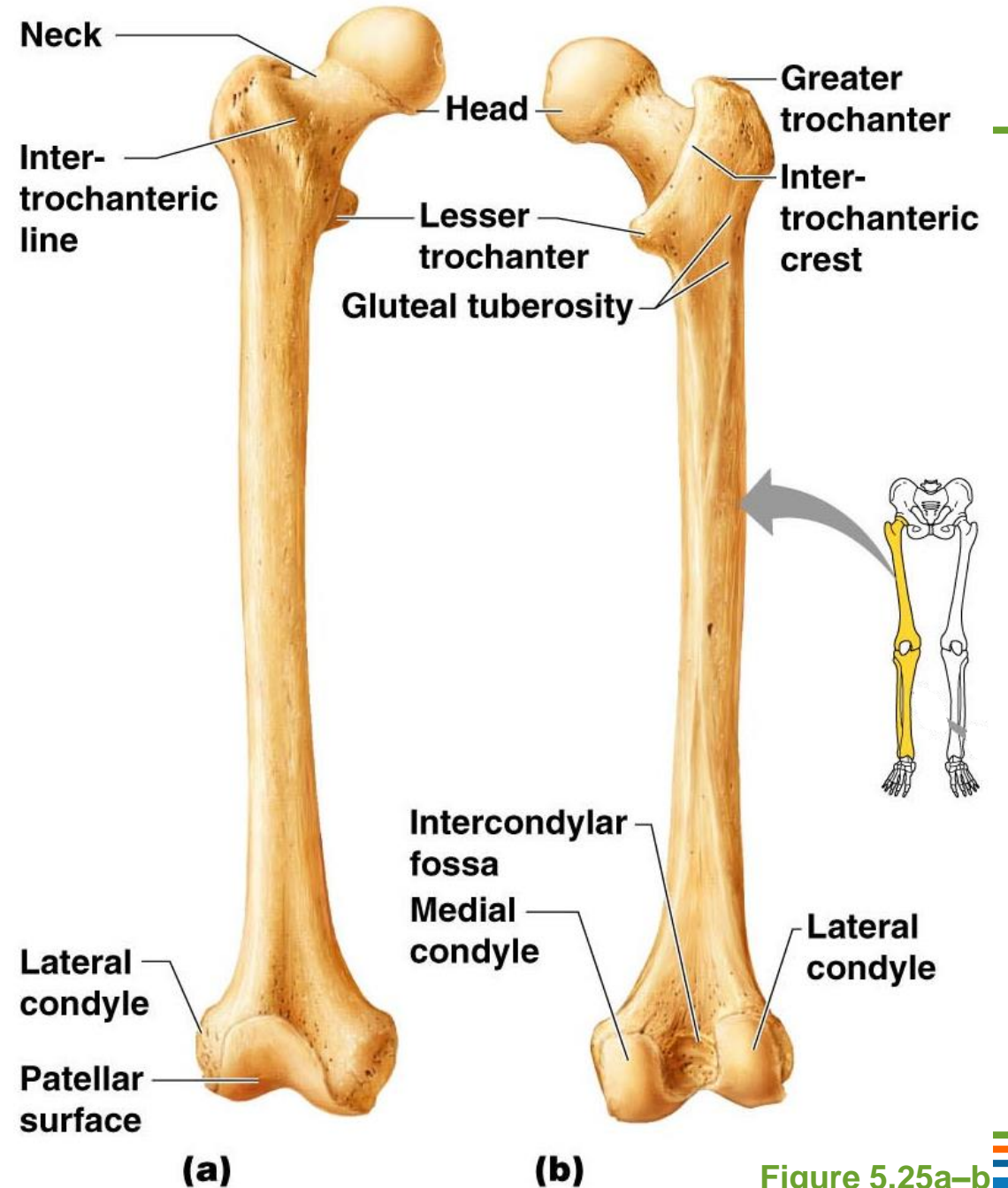
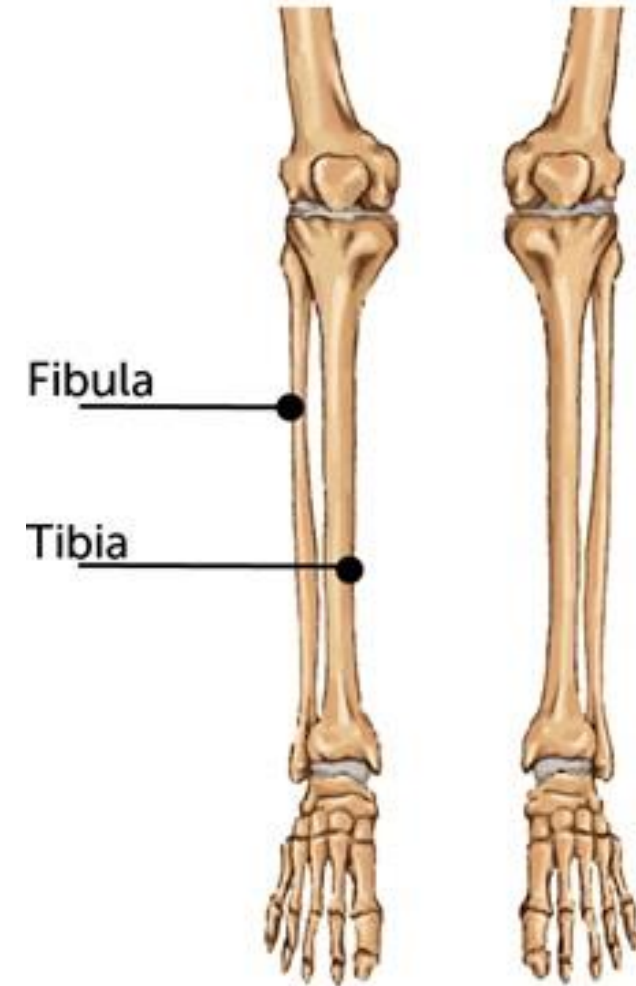


Figure 5.25a–b

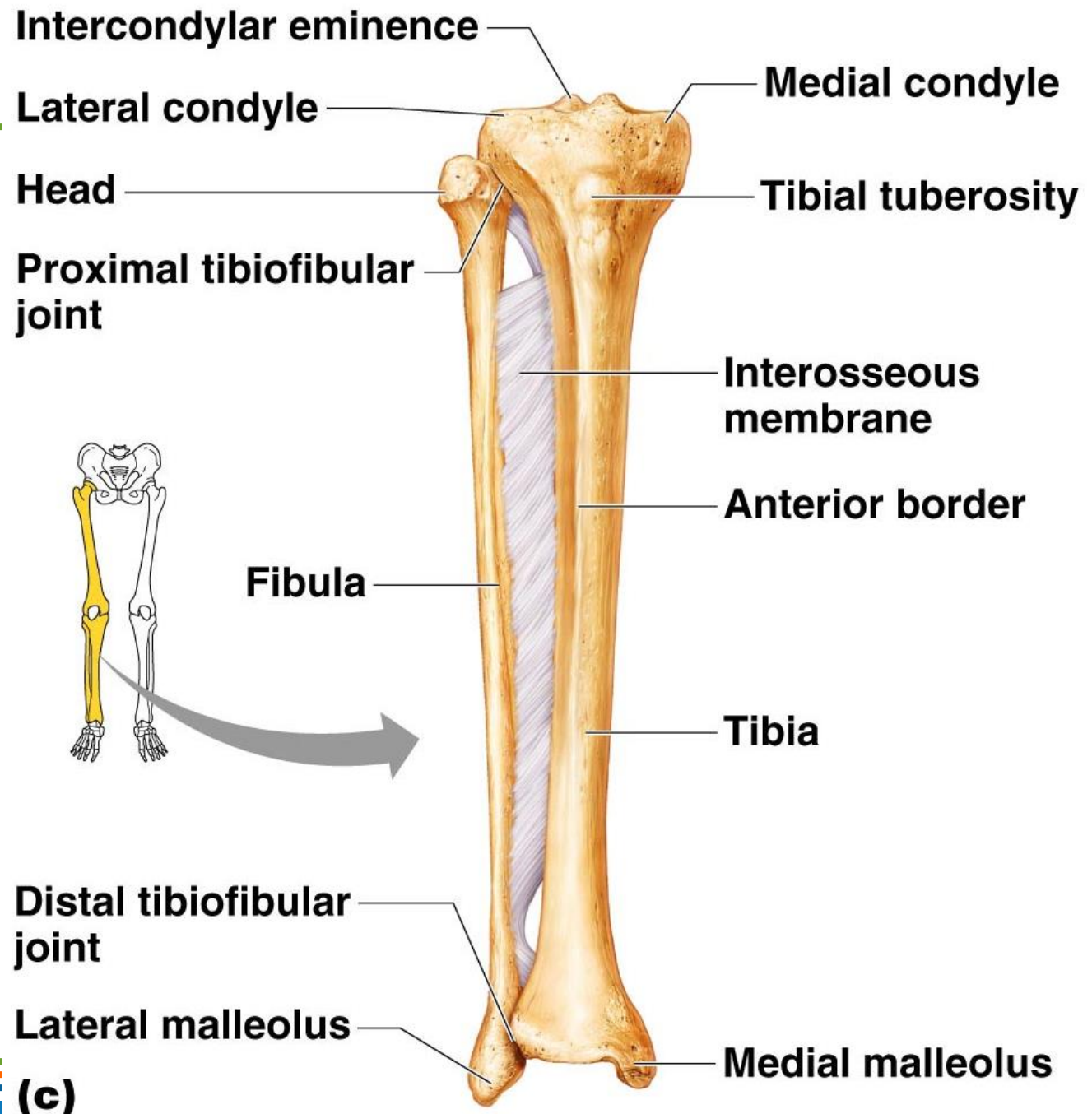
Bones of the Lower Limbs

- The lower leg has two bones
 - **Tibia**
 - **Shin bone**
 - **Larger and medially oriented**
 - **Fibula**
 - **Thin and sticklike**



Bones of the Lower Limbs

Figure 5.25c



Bones of the Lower Limbs

Bones of Hands & Feet Song

- The foot
 - Tarsals
 - Two largest tarsals
 - **Calcaneus** (heel bone)
 - Talus
 - Metatarsals—**sole**
 - Phalanges—**toes**

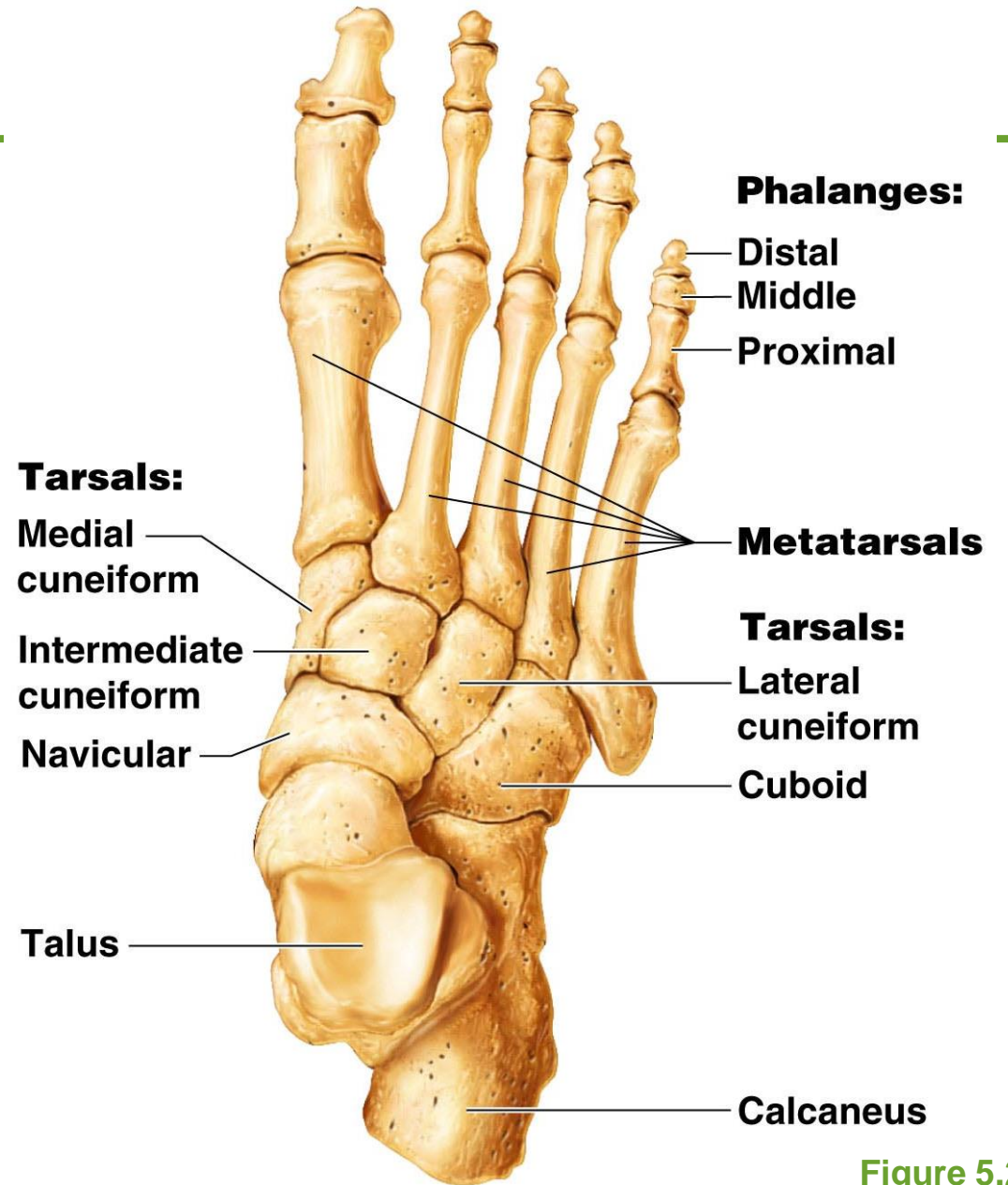
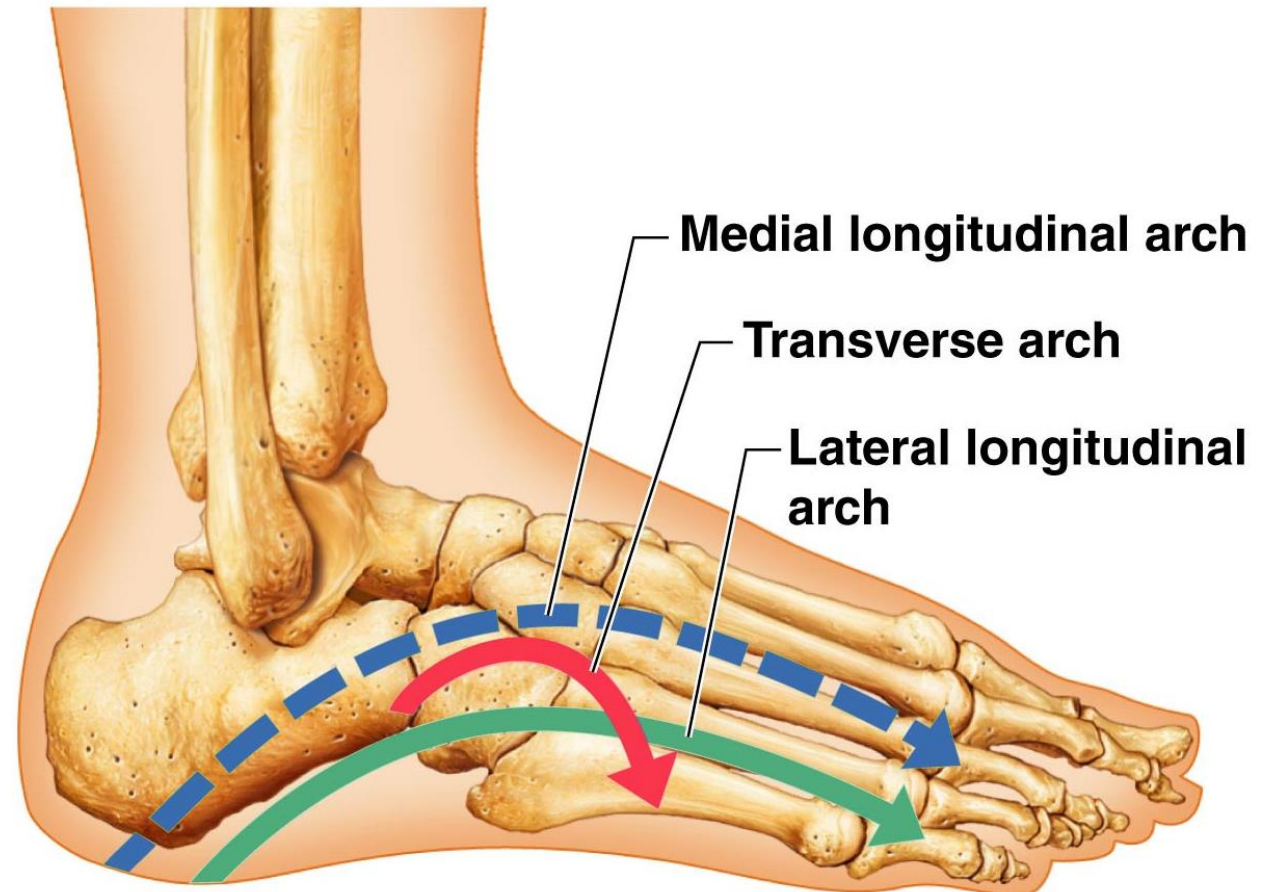


Figure 5.26

Arches of the Foot

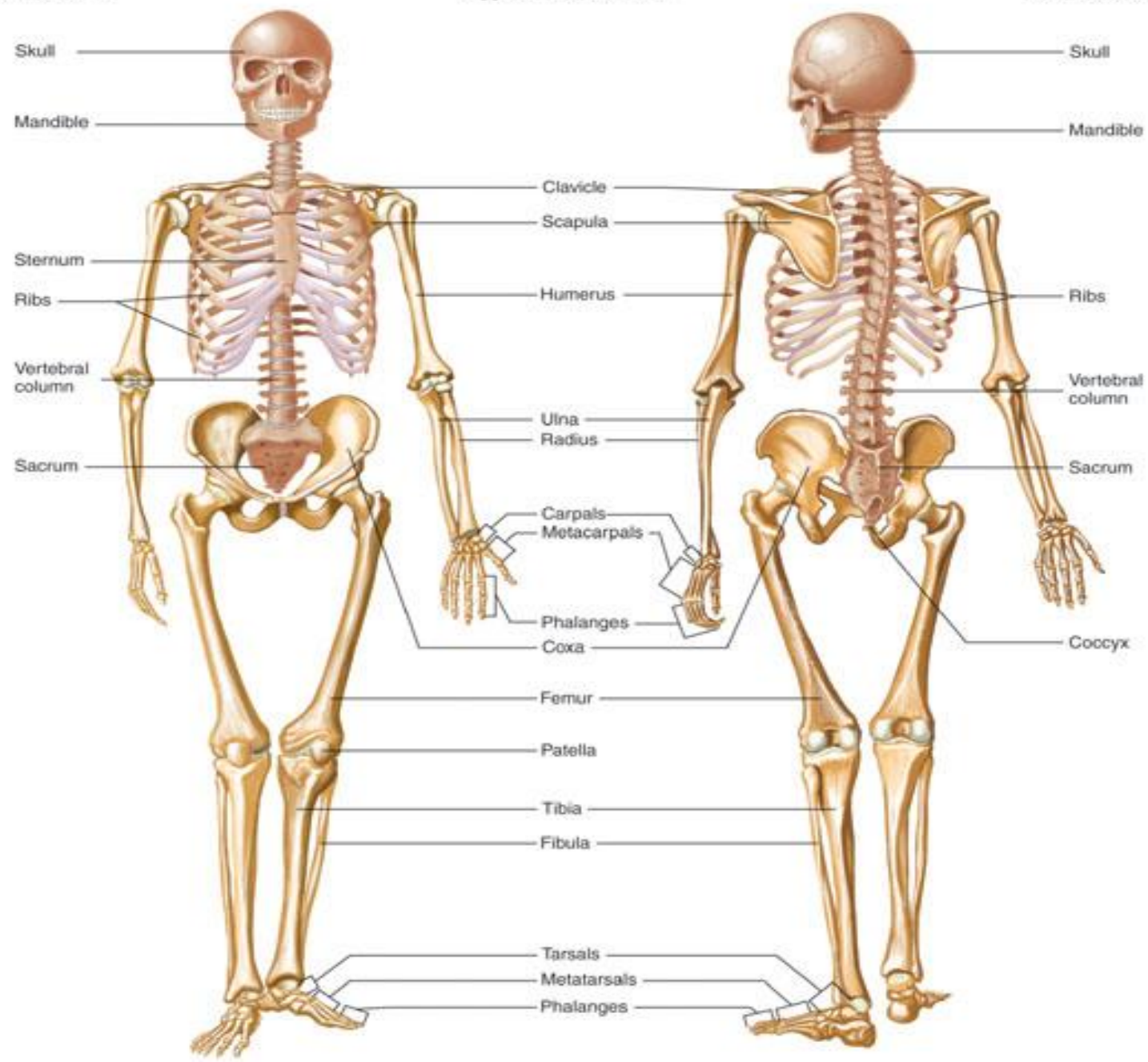
- **Bones of the foot are arranged to form three strong arches**
 - **Two longitudinal**
 - **One transverse**



Axial Skeleton

Appendicular Skeleton

Axial Skeleton



Anterior

Posterior

ANSWERS:

Bones of the Axial & Appendicular Skeleton

1. cranium

2. mandible

3. sternum

4. ribs

5. vertebra

6. sacrum

7. clavicle

8. scapula

9. humerus

10. ulna

11. radius

12. carpals

13. metacarpals

14. phalanges

15. coxa

16. femur

17. patella

18. tibia

19. fibula

20. tarsals

21. metatarsals

22. phalanges

23. cranium

24. mandible

25. skull

26. ribs

27. vertebra

28. sacrum

29. coccyx

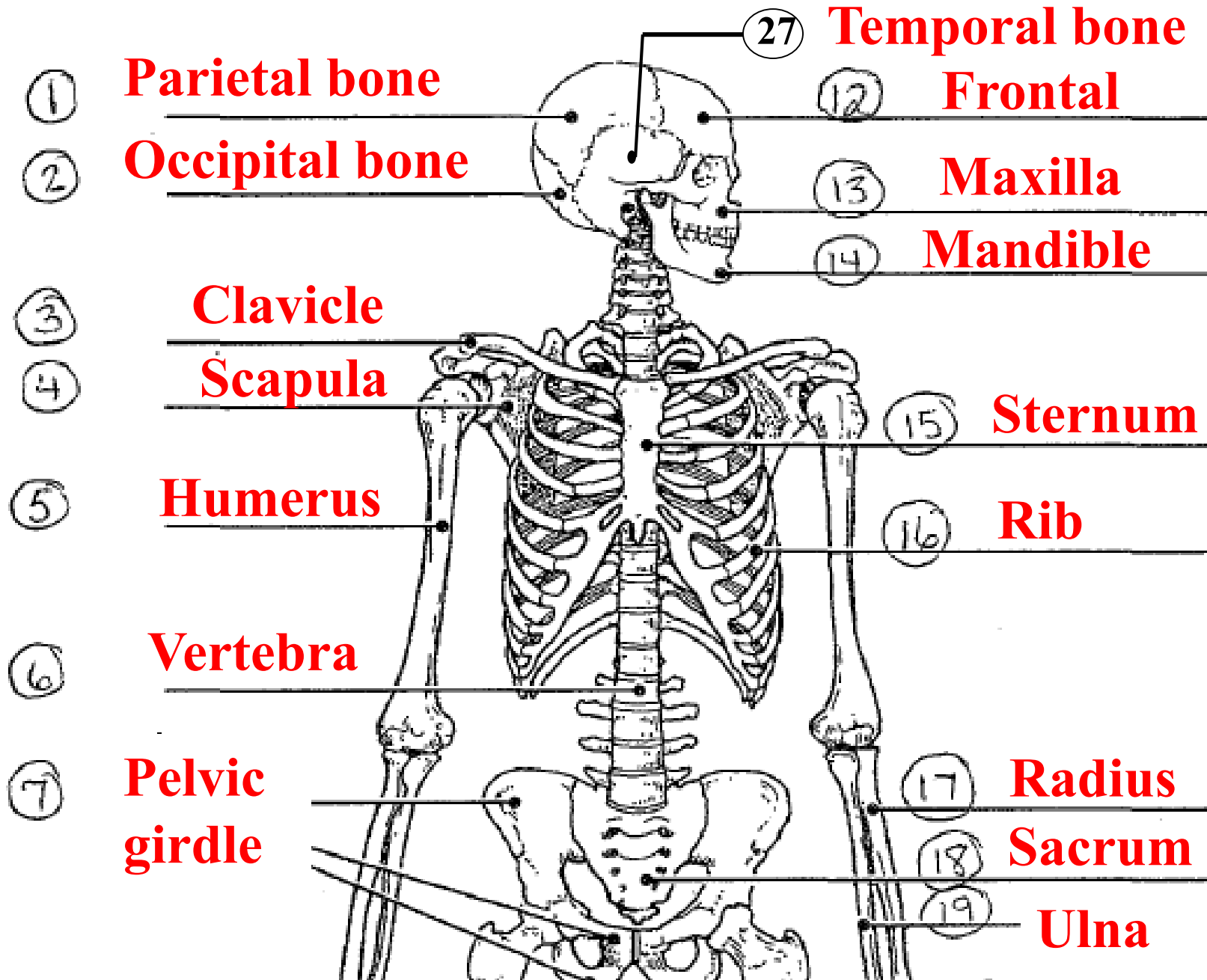
30. talus

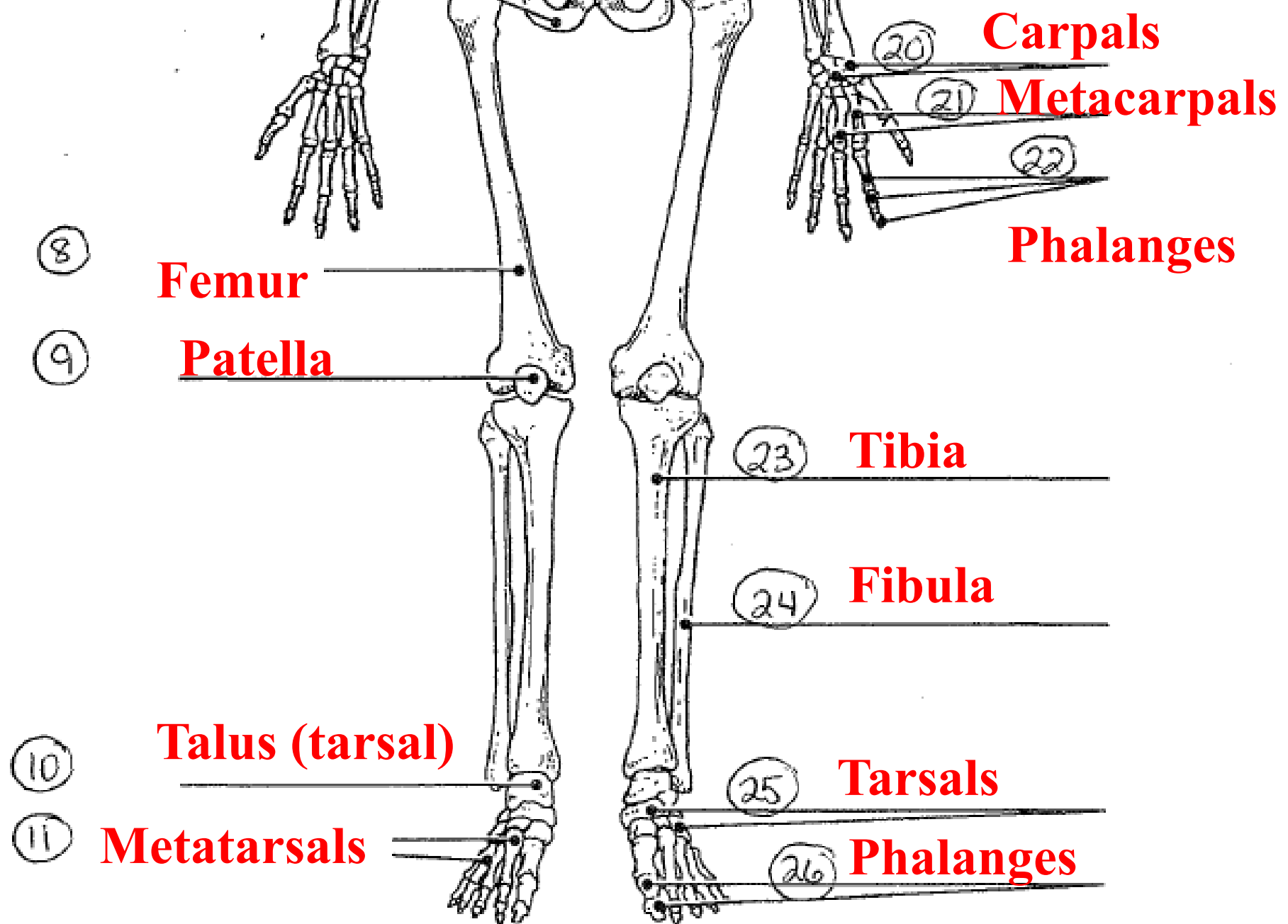
31. calcaneus

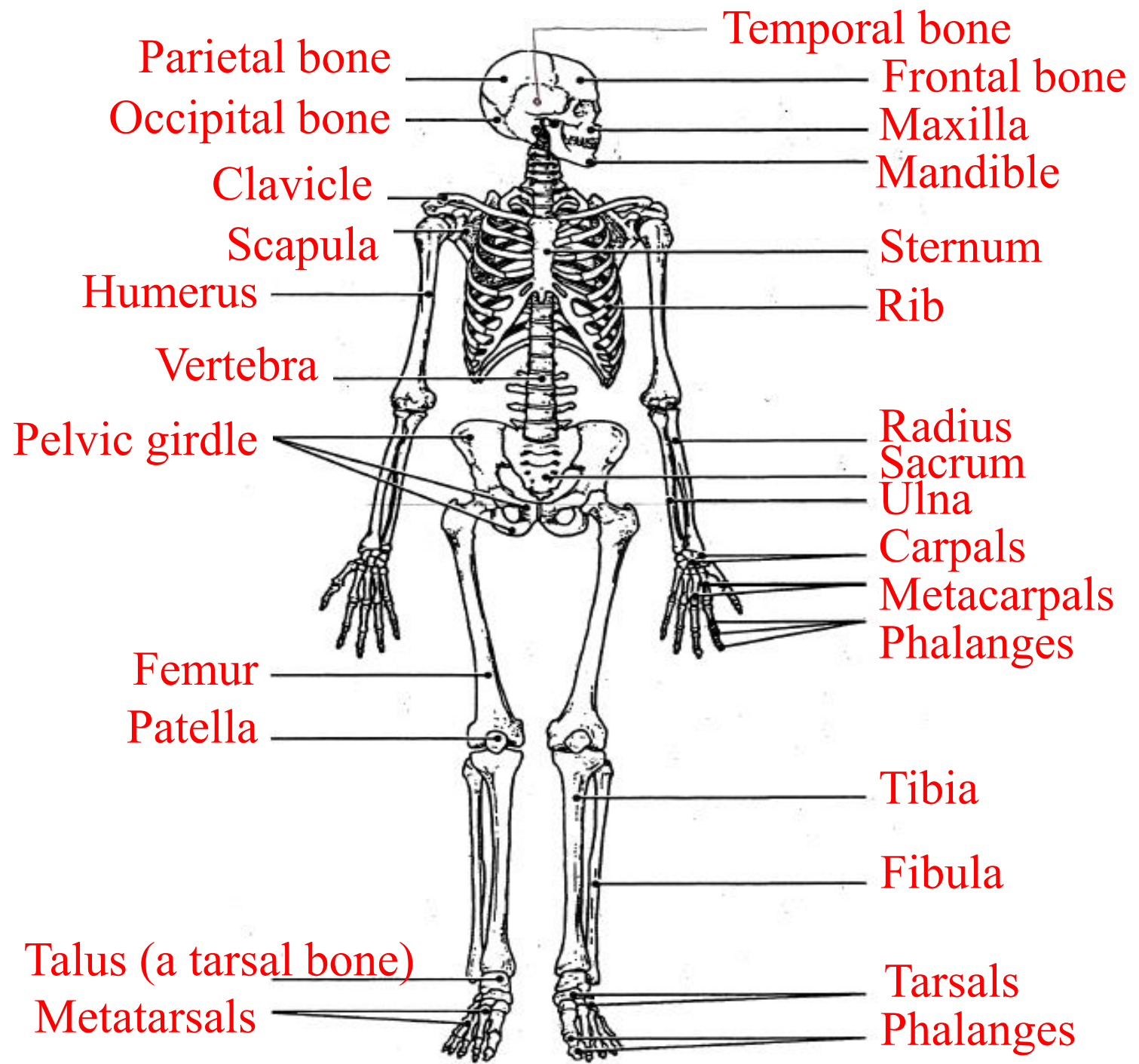
LESSON 12

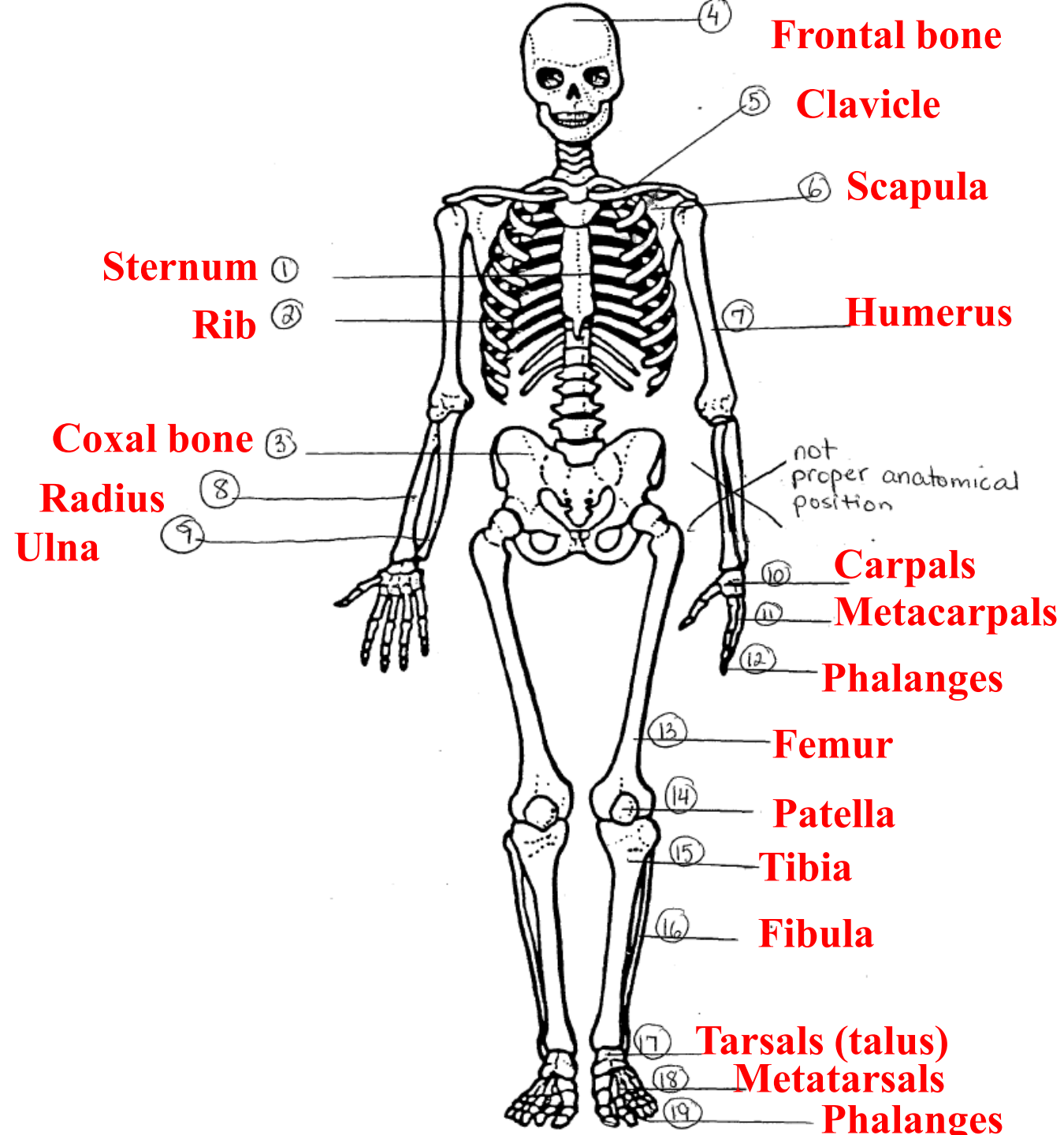
- **Appendicular Skeleton (2)**
 - **Diagrams**
 - **Simon says**
 - **HW – Skeletal Webquest**

The Articulated Skeleton









Simon Says touch
your

