

Anatomy

The Musculoskeletal System

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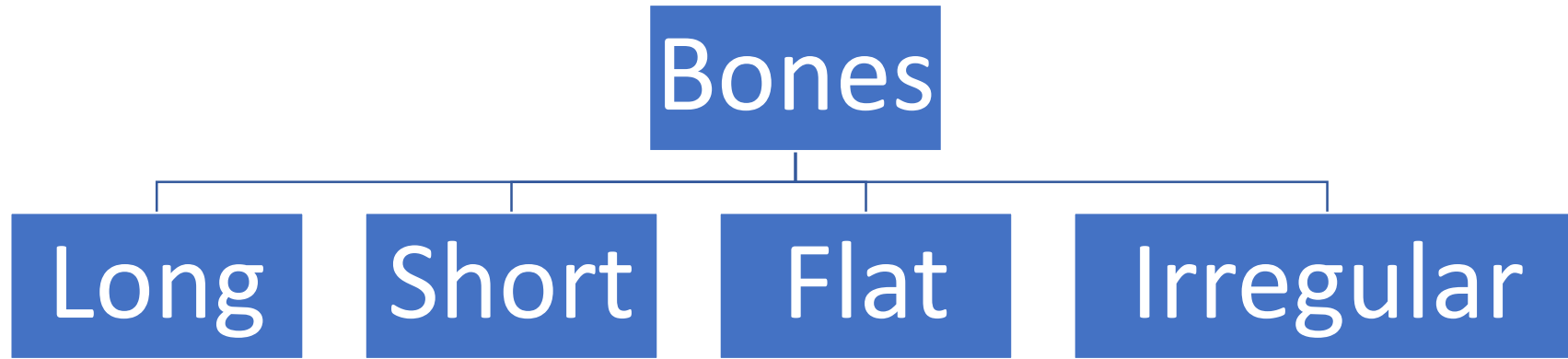
MBChB, MSc, PhD

(Anatomy, Histology, & Embryology)

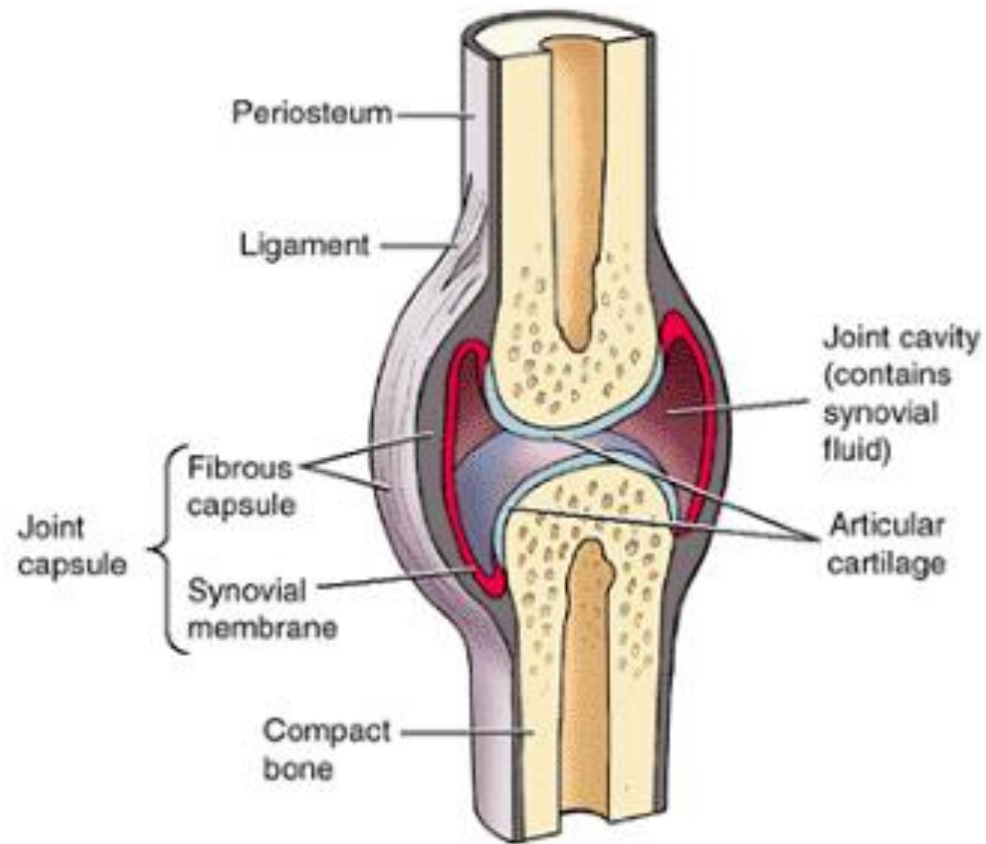
Skeletal system: notes

- A system made of 206 hard living structures (bones)
- Bones are joined together by (joints)
- The skeleton provides support to the body
- The skeleton provides protection to the vital organs (brain, lungs, heart)
- The skeleton mediates movement of the body
- The bones produce blood cells
- The bones serve other functions

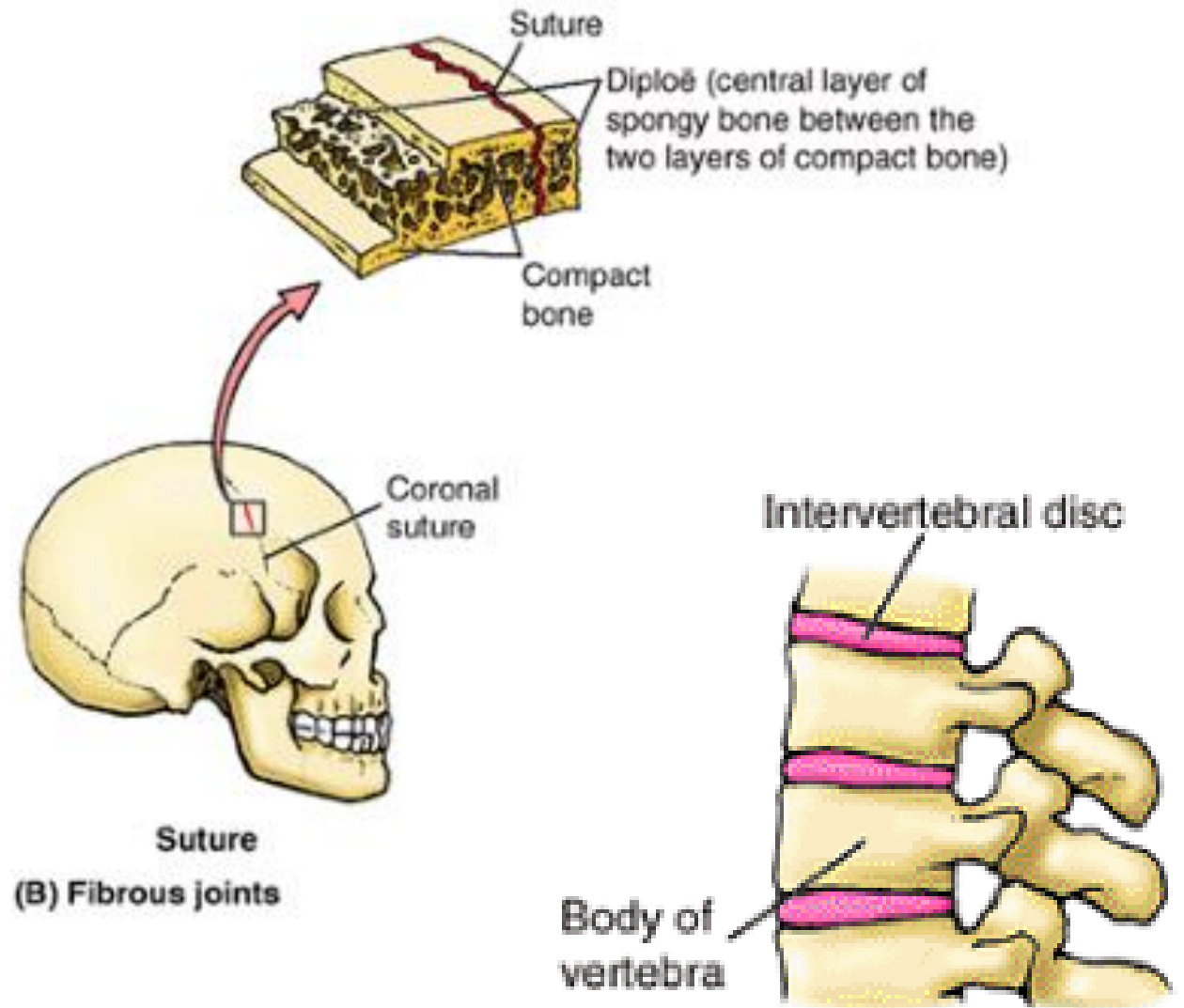
Bones



Types of Joints



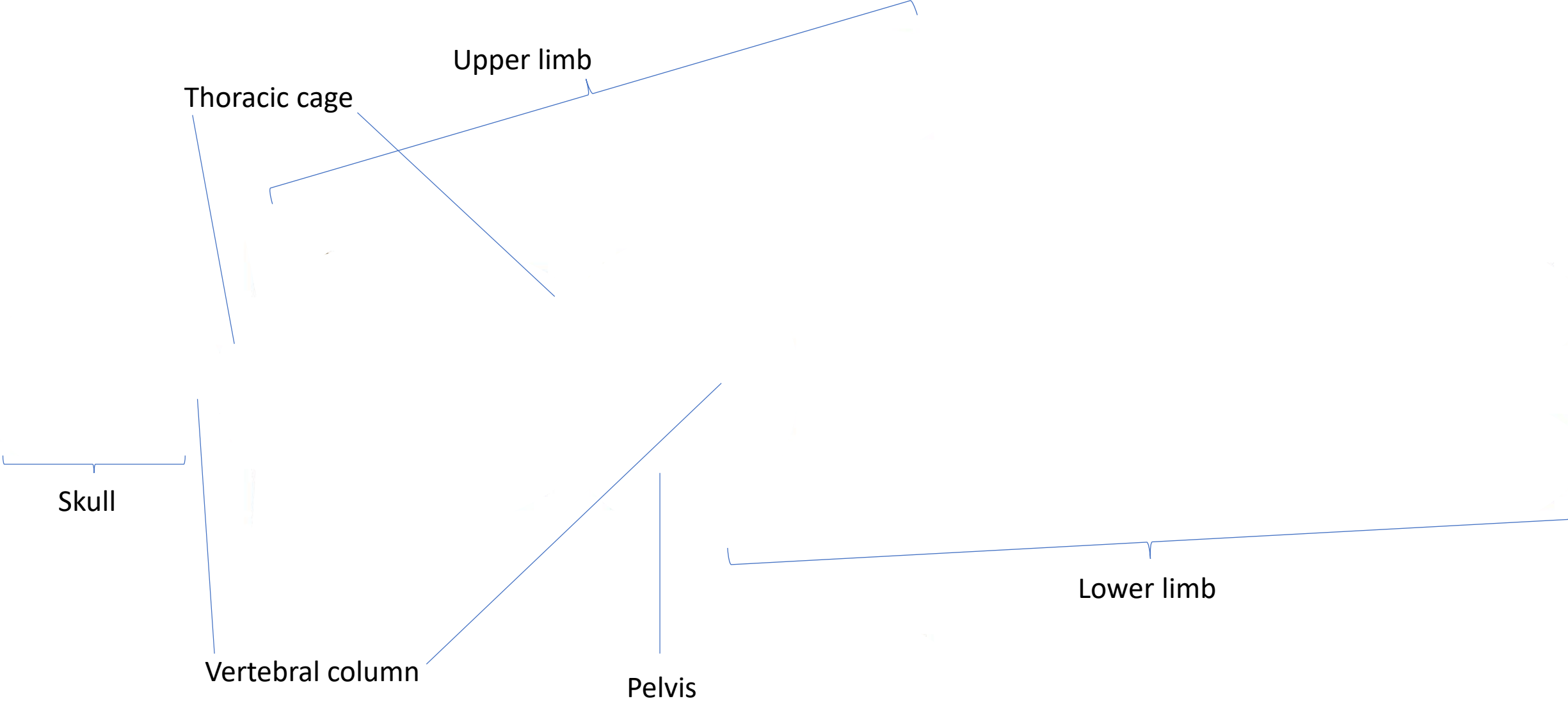
(A) Synovial joints



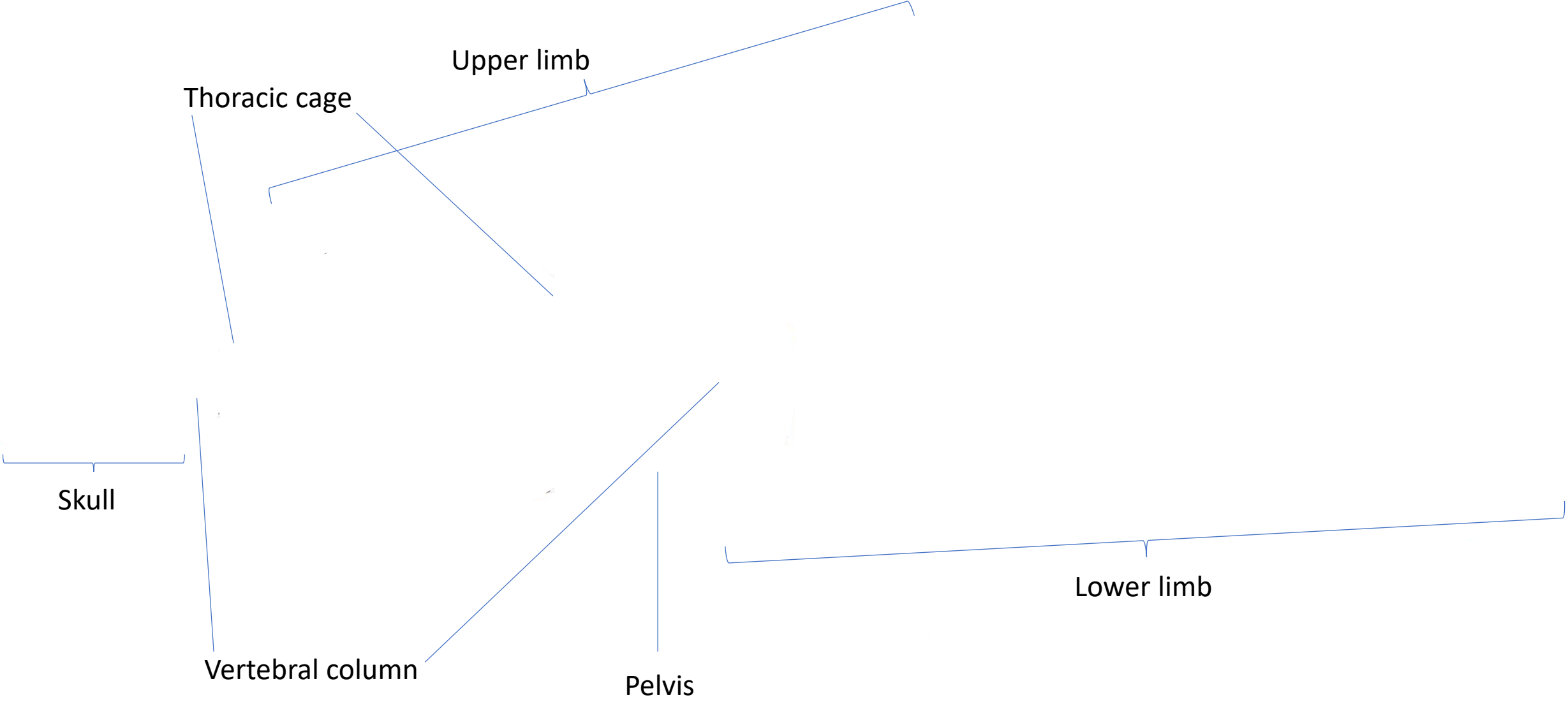
Suture
(B) Fibrous joints

(C) Cartilaginous joints

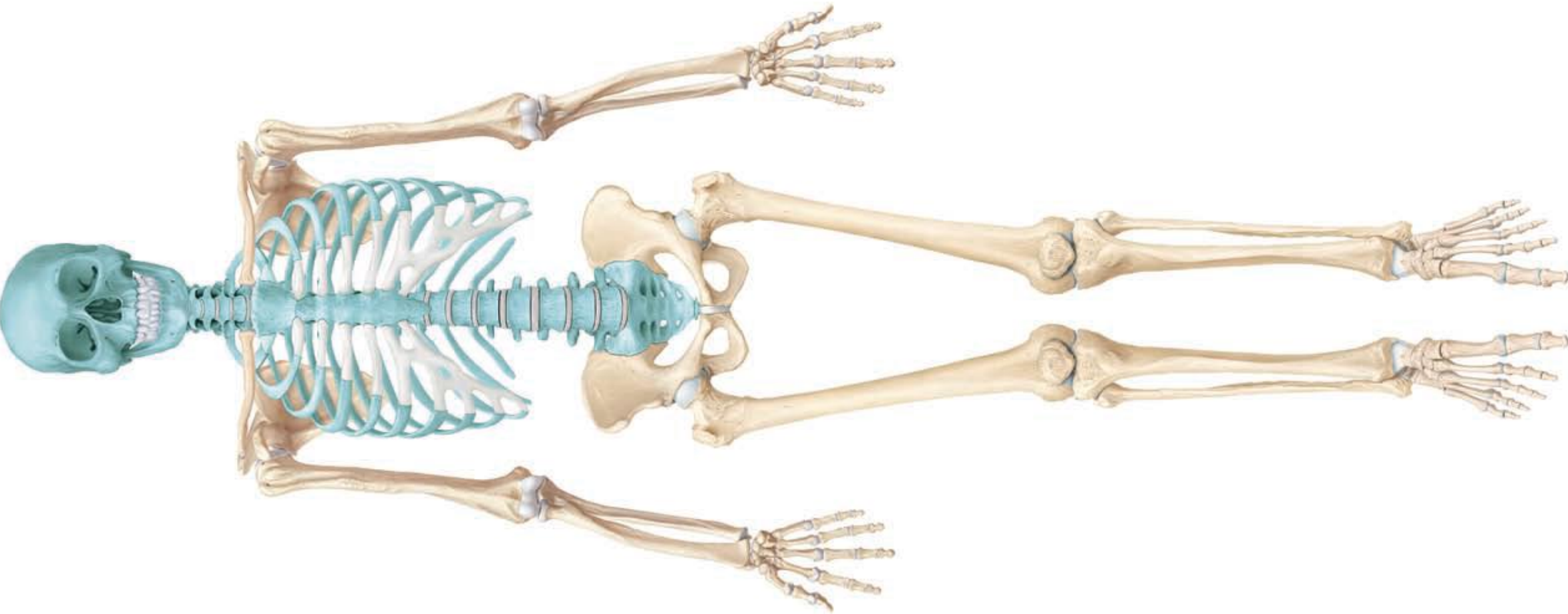
The Skeleton: anterior view



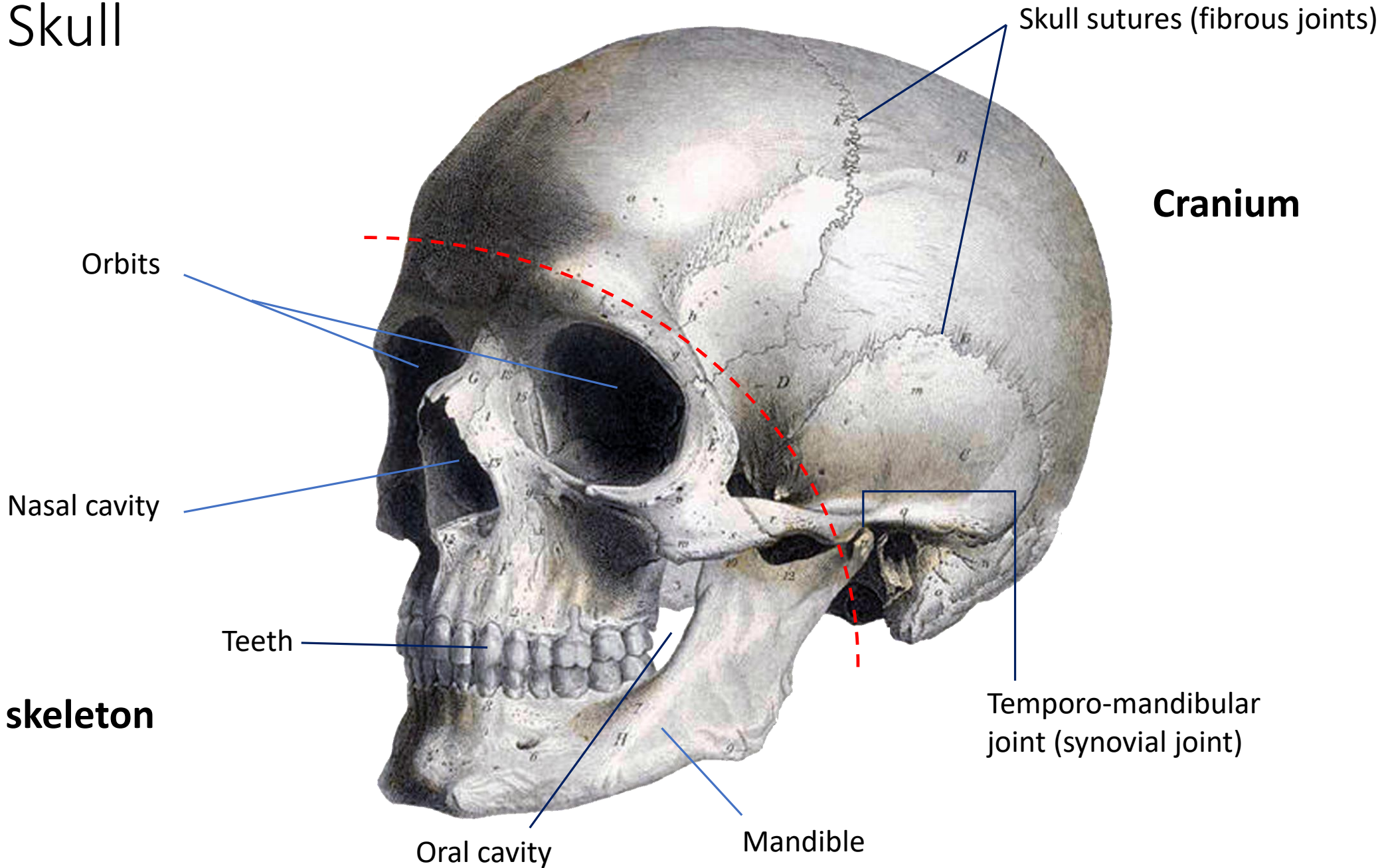
The Skeleton: posterior view



Axial & Appendicular Skeleton



The Skull



Cranium

Orbits

Nasal cavity

Teeth

Facial skeleton

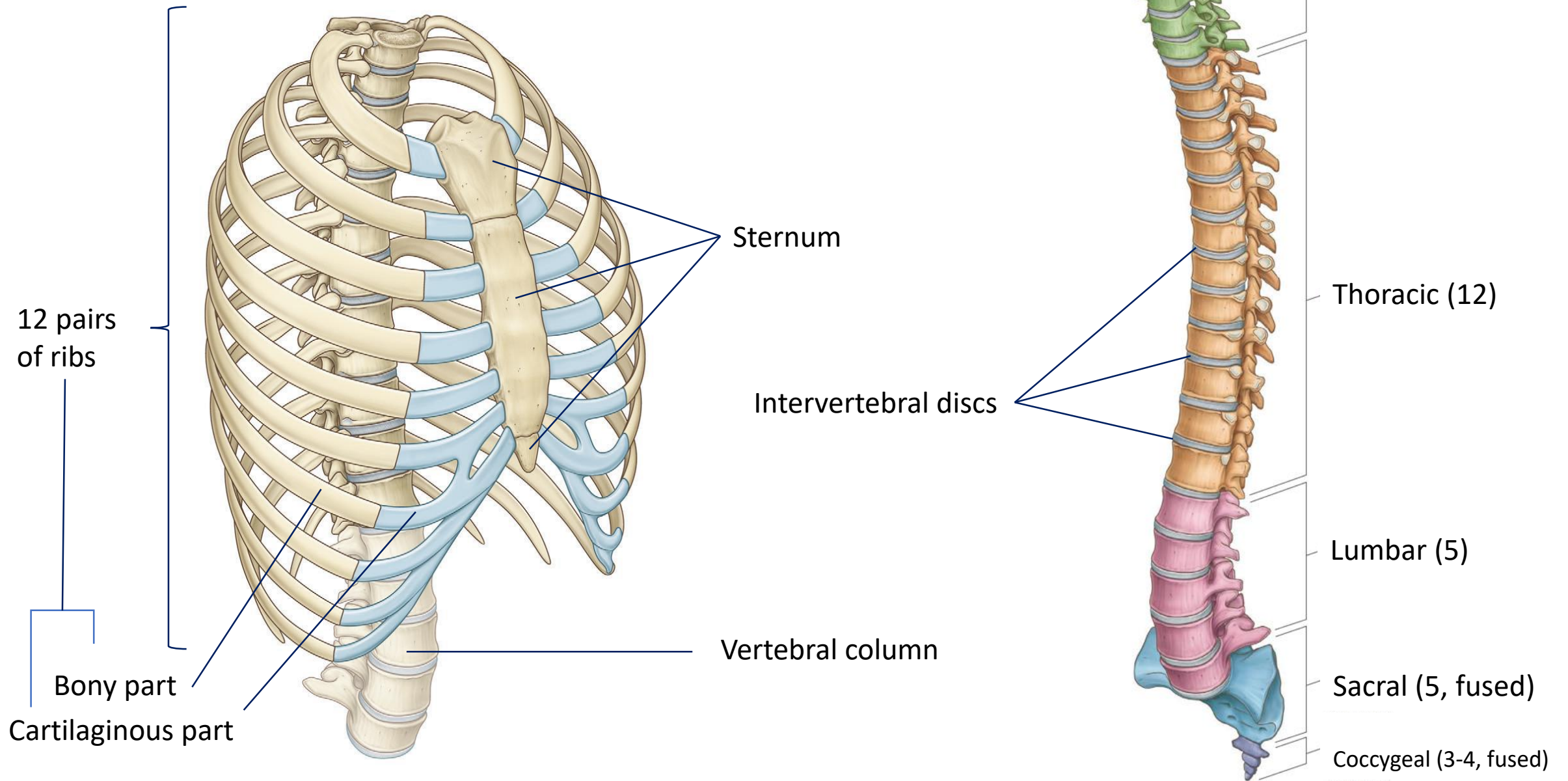
Oral cavity

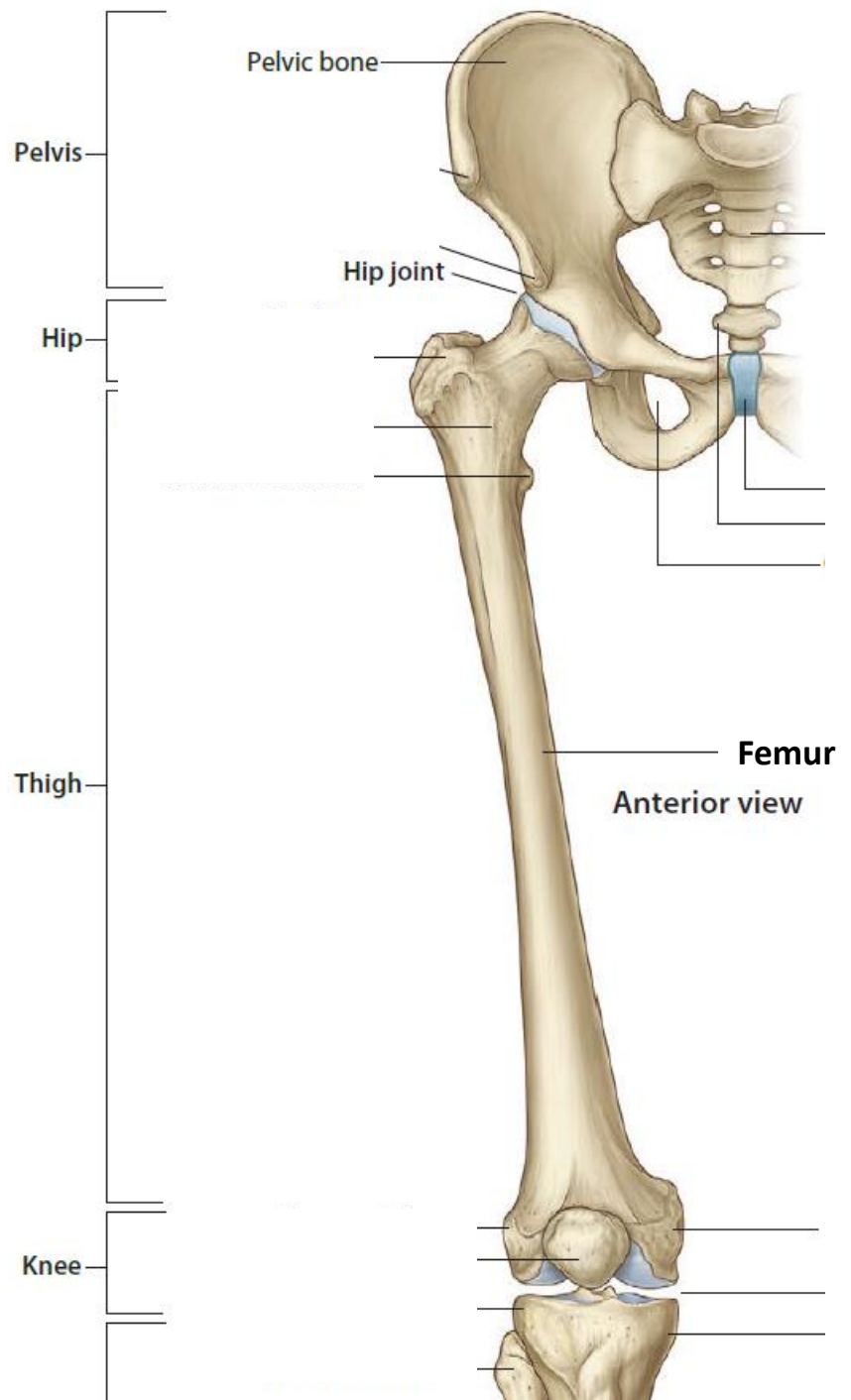
Mandible

Skull sutures (fibrous joints)

Temporo-mandibular joint (synovial joint)

Vertebral Column & Thoracic Cage





Pelvic bone

Pelvis

Hip joint

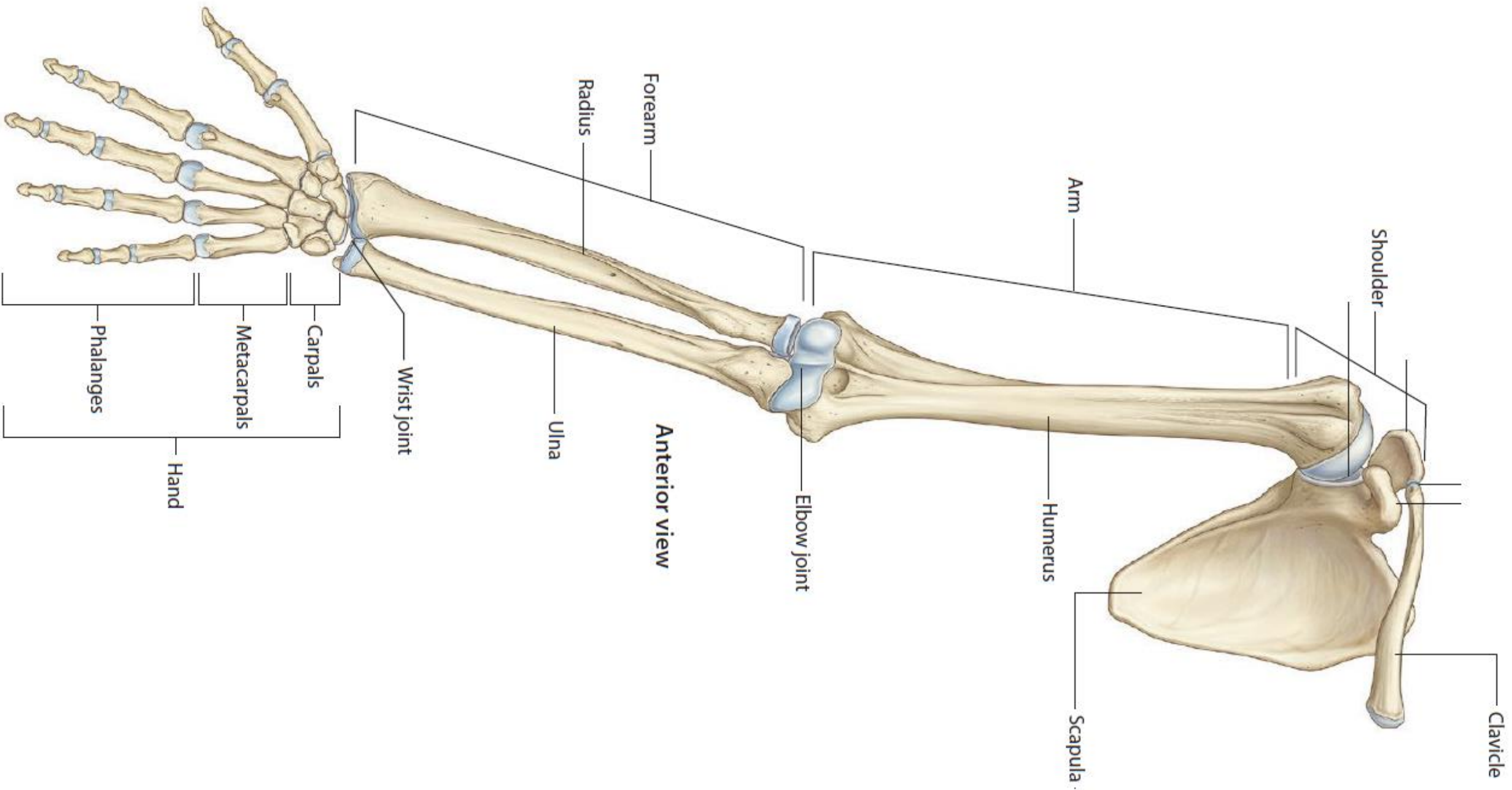
Hip

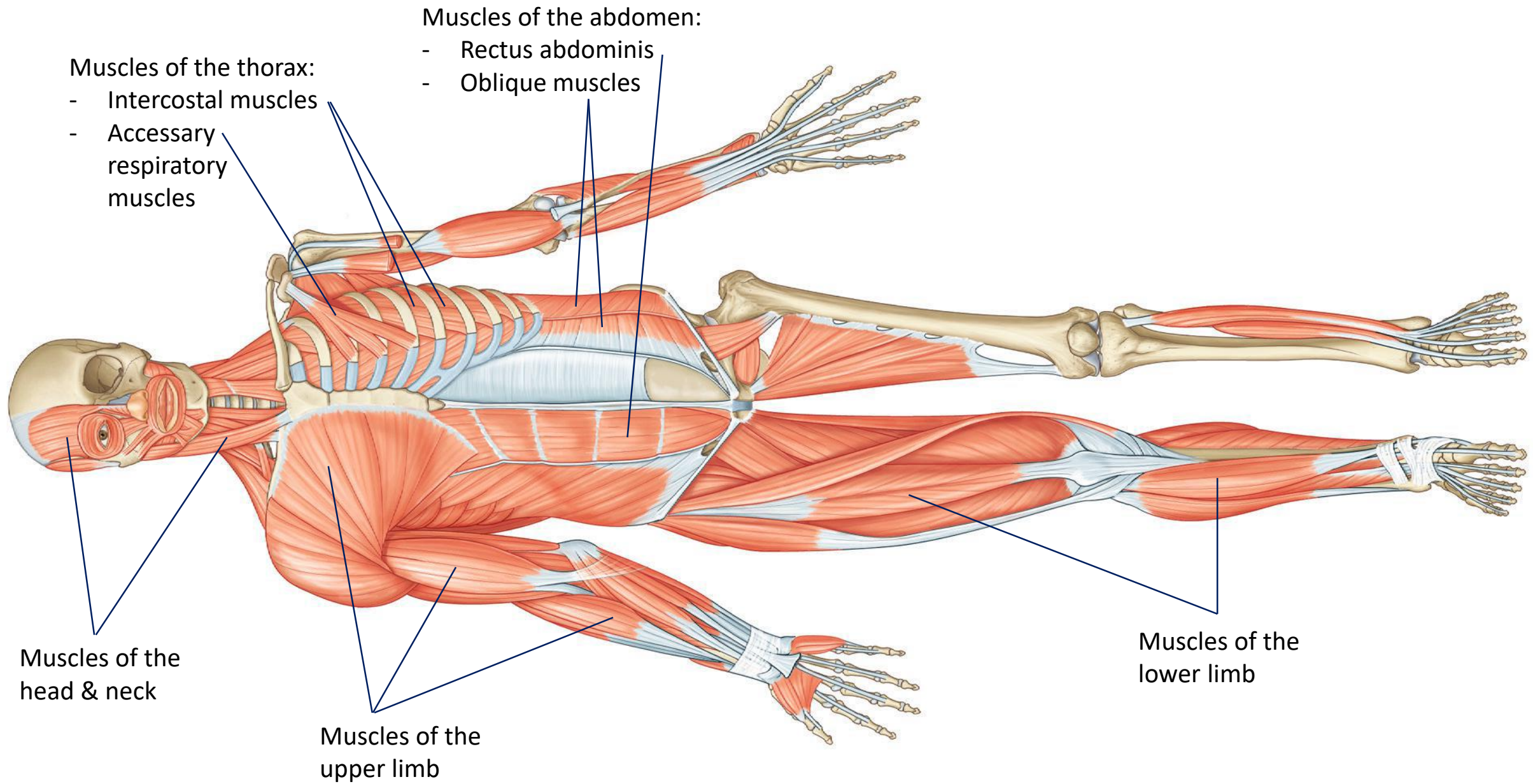
Thigh

Femur

Anterior view

Knee





Muscles of the thorax:

- Intercostal muscles
- Accessory respiratory muscles

Muscles of the abdomen:

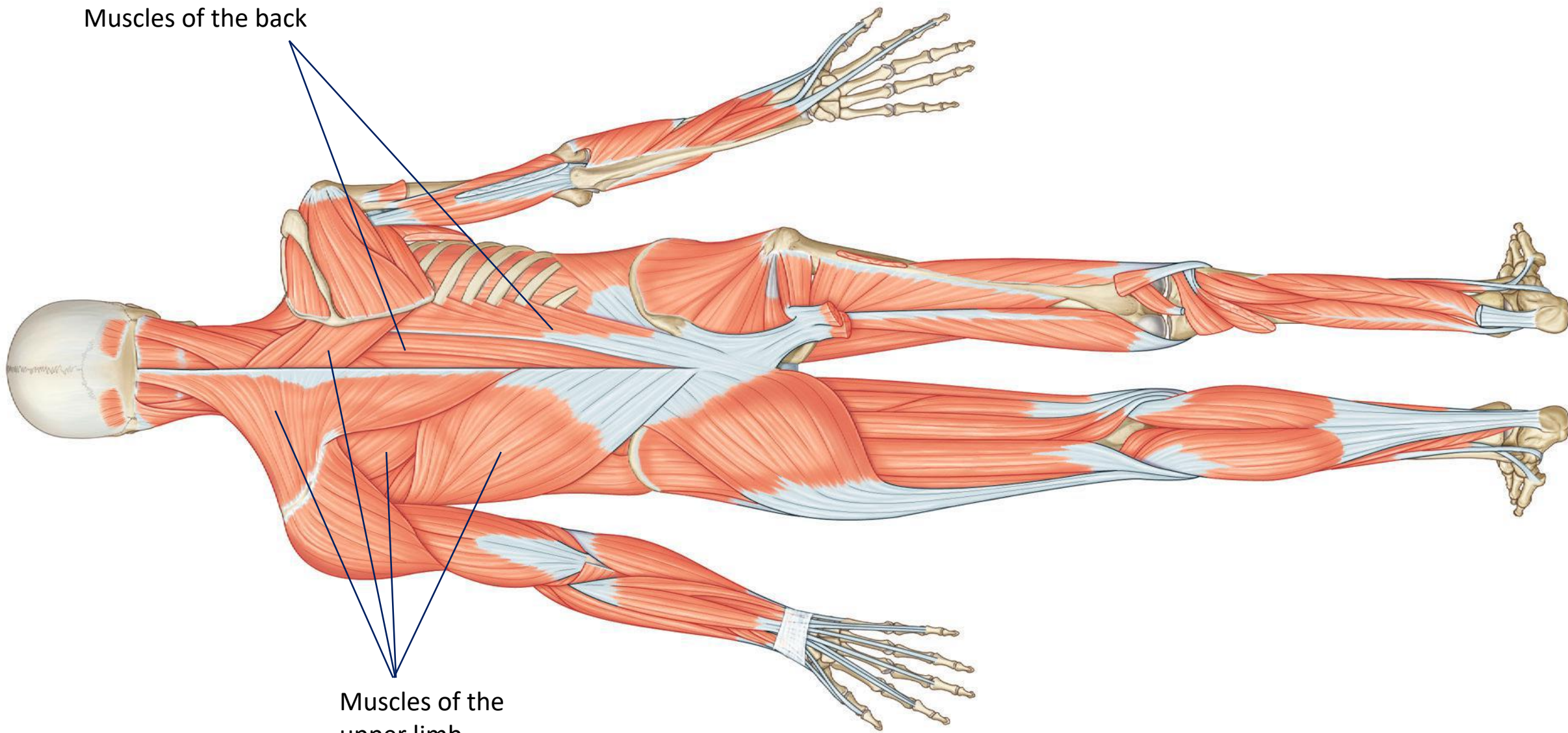
- Rectus abdominis
- Oblique muscles

Muscles of the head & neck

Muscles of the upper limb

Muscles of the lower limb

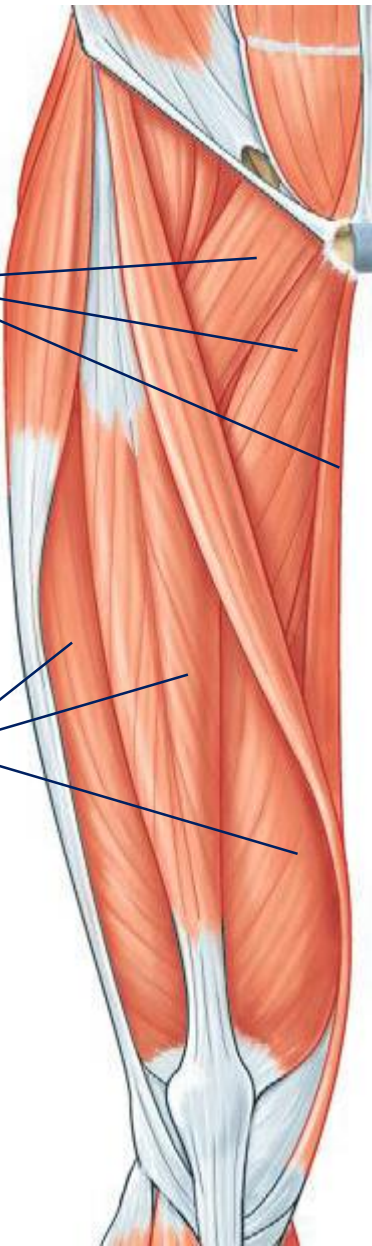
Muscles of the back



Muscles of the upper limb

Thigh

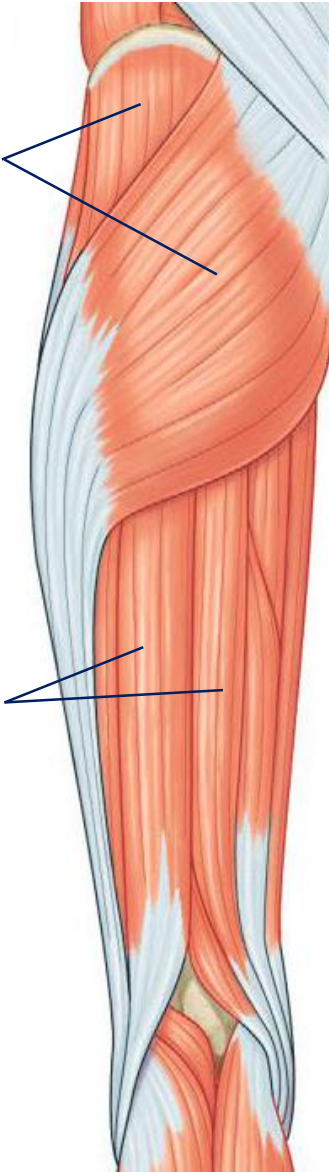
Medial group
(adductor muscles)



Anterior group
(Quadriceps muscle)

Gluteal muscles

Posterior group
(hamstring muscles)

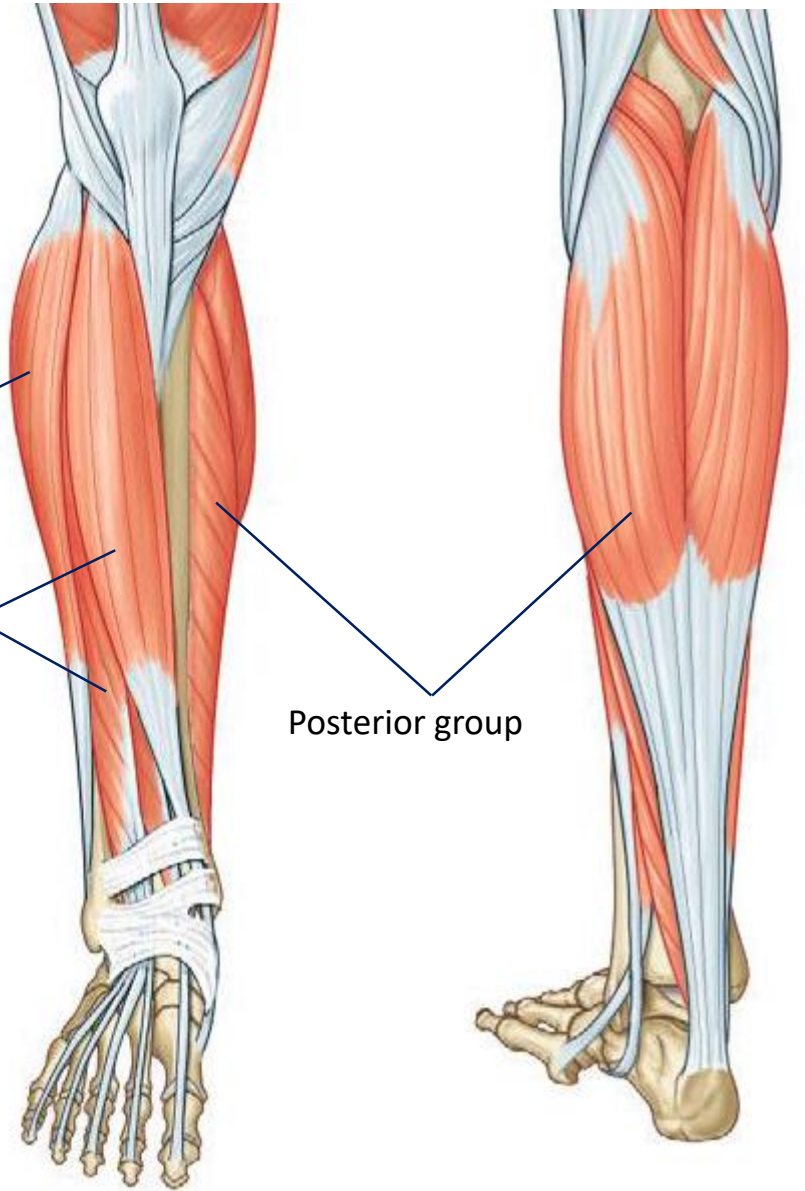


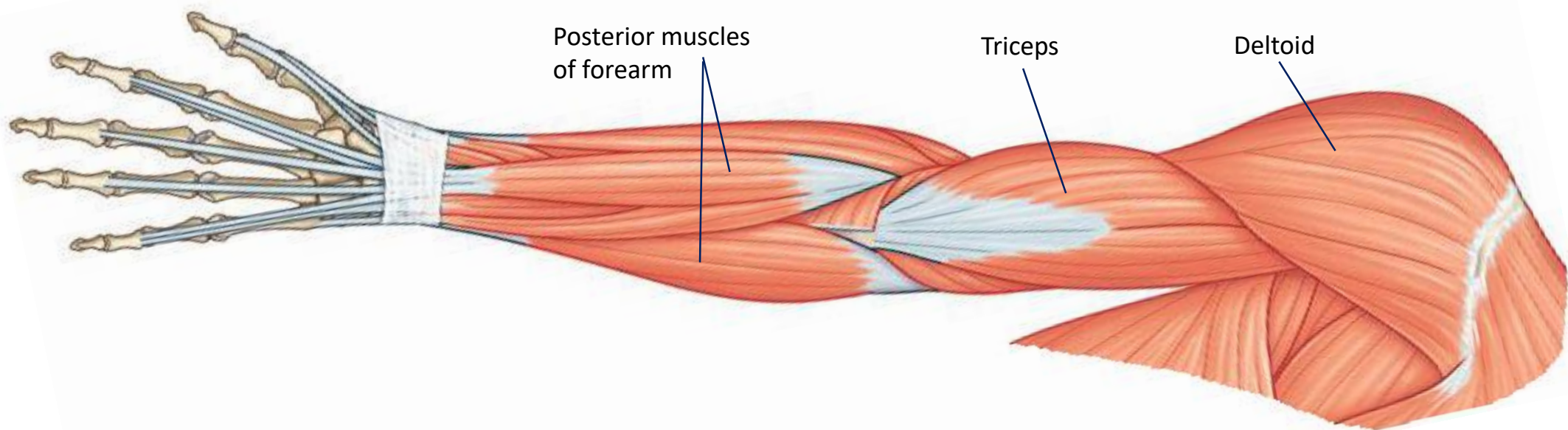
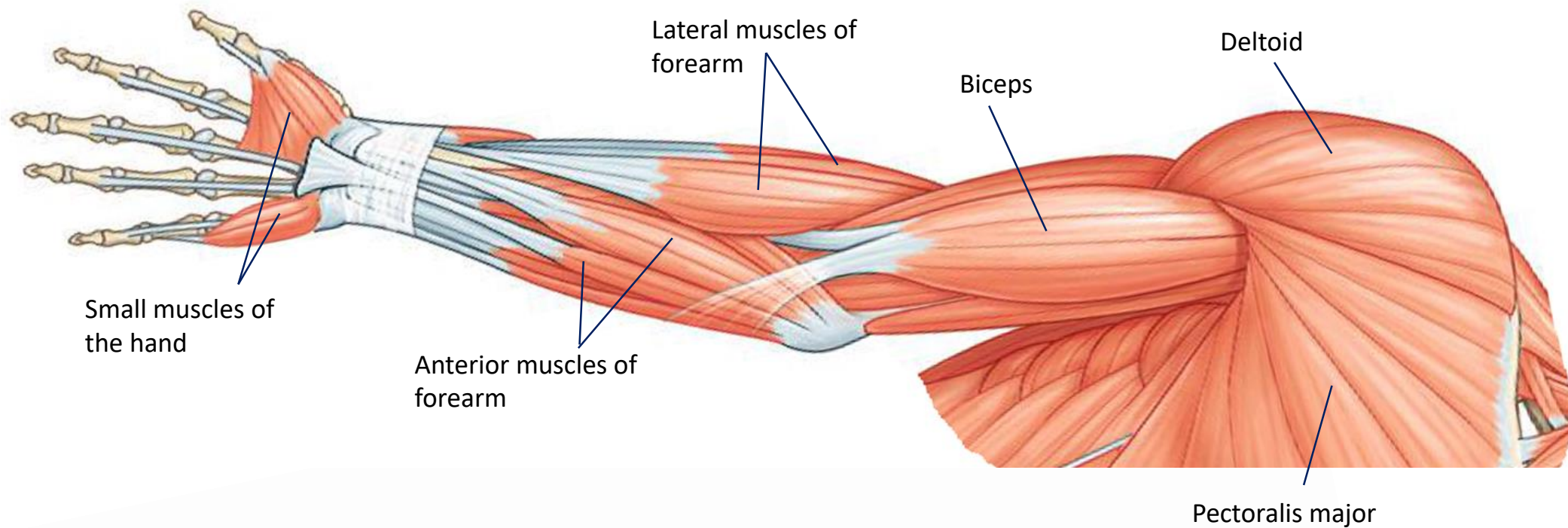
Leg

Lateral group

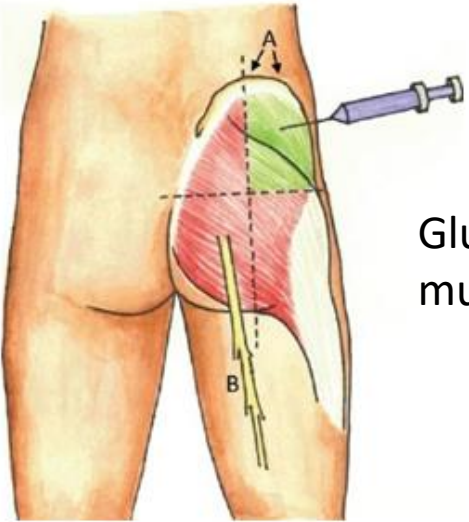
Anterior group

Posterior group

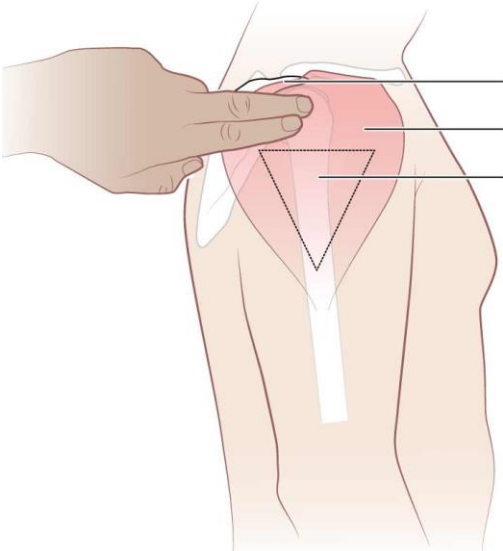
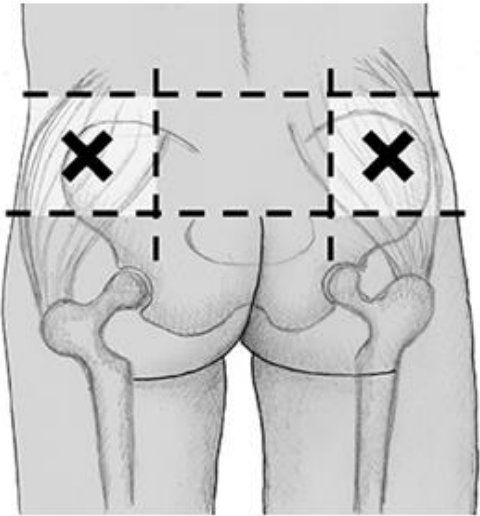




Sites of intra-muscular injection



Gluteus muscle



Acromion process
Deltoid muscle
Injection site

