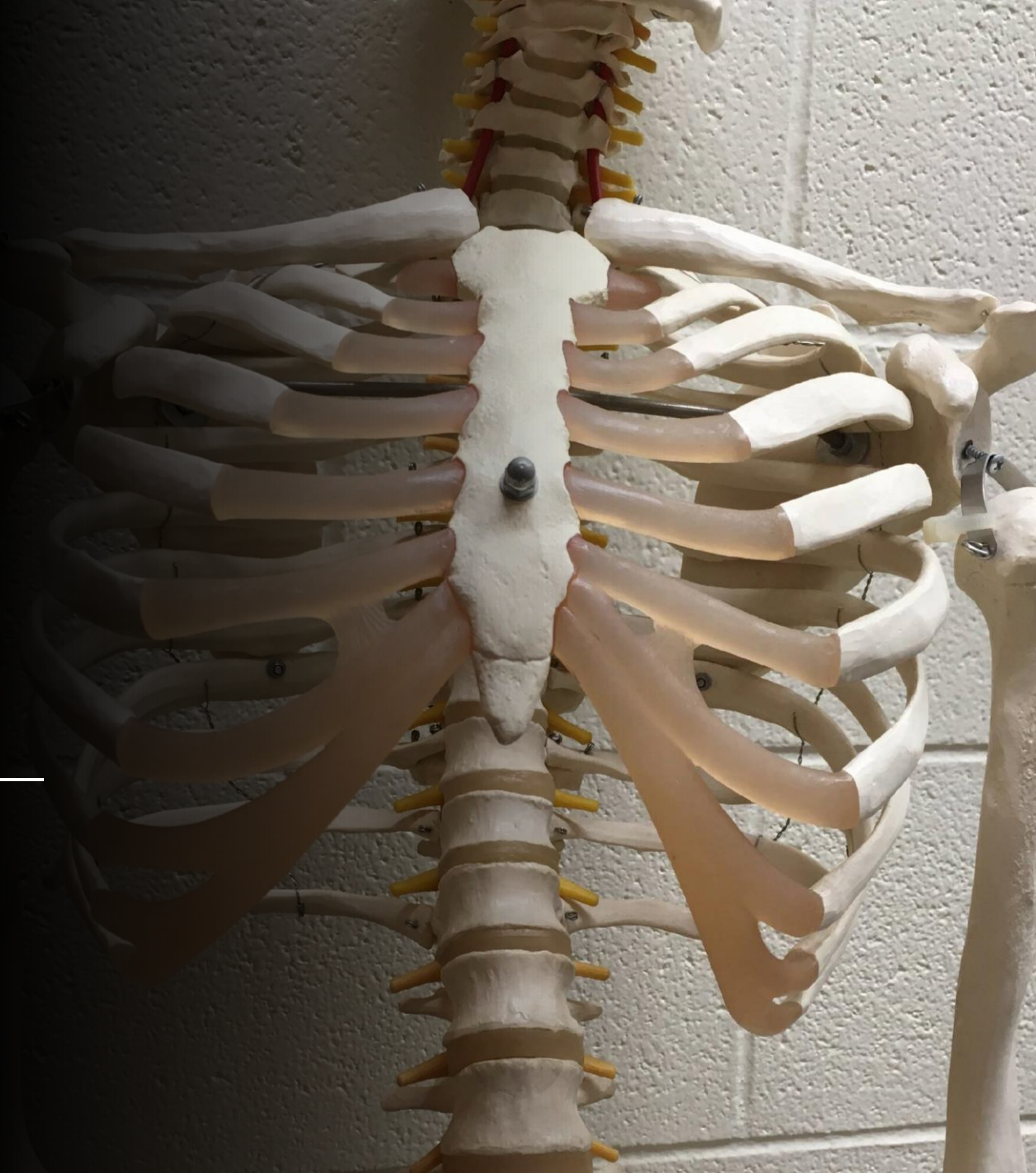


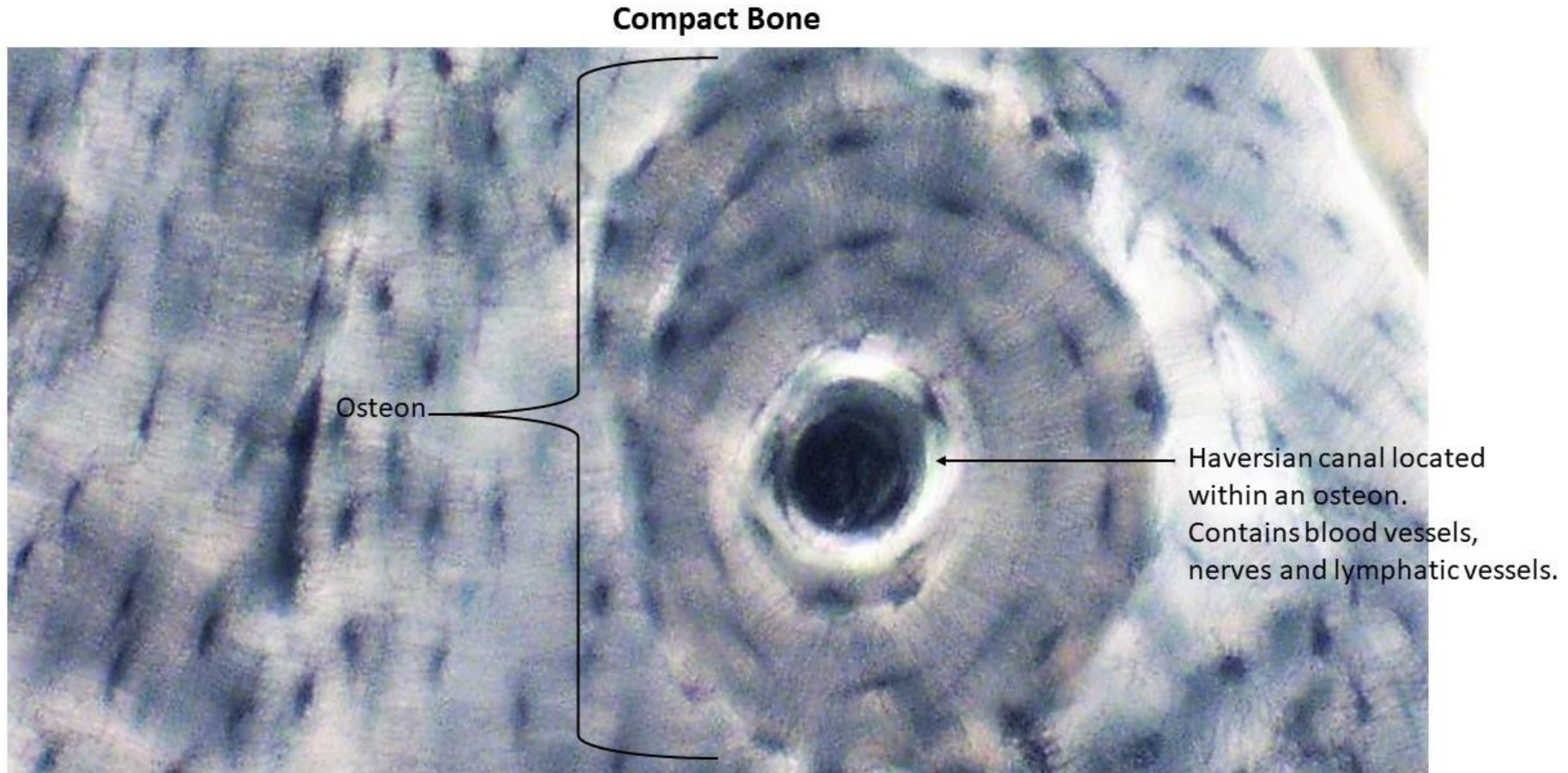
Virtual Lab
Practical 2
Review
Pictures
Skeletal
System



Chapters Reviewed:

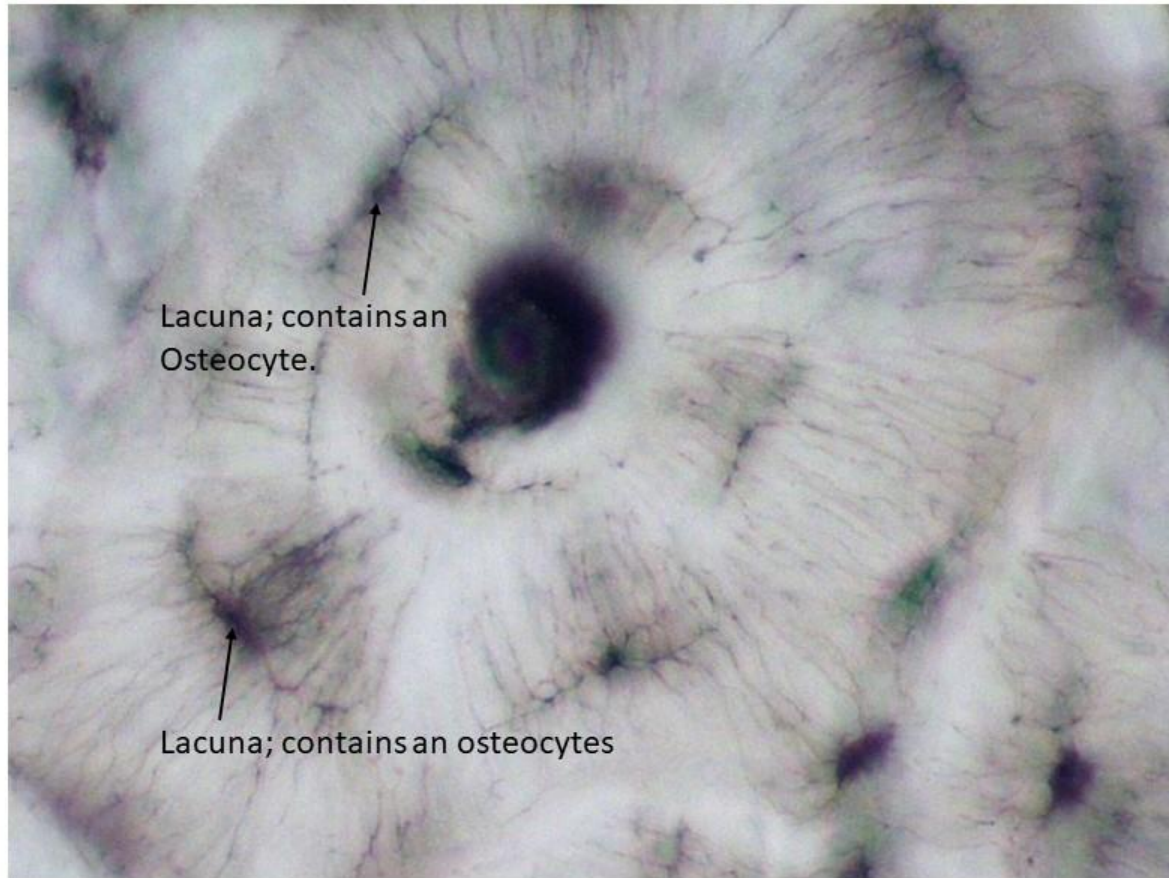
- Cartilage and Bone
 - Axial Skeleton
 - Appendicular Skeleton
-
- Study the pictures of the labeled models and tissues as part of your online lab experience
 - Be familiar with the different pictures as they will be used for the lab exam.
 - Review Dr. Gannon's instructional videos over [osseous tissue](#), [axial skeleton](#) and [appendicular skeleton](#). The links to the playlists of multiple videos can also be found in the lab e-book
 - Remember to use the zoom in or zoom out if you need to increase or decrease the size of the image

Compact Bone Tissue



Compact Bone Tissue

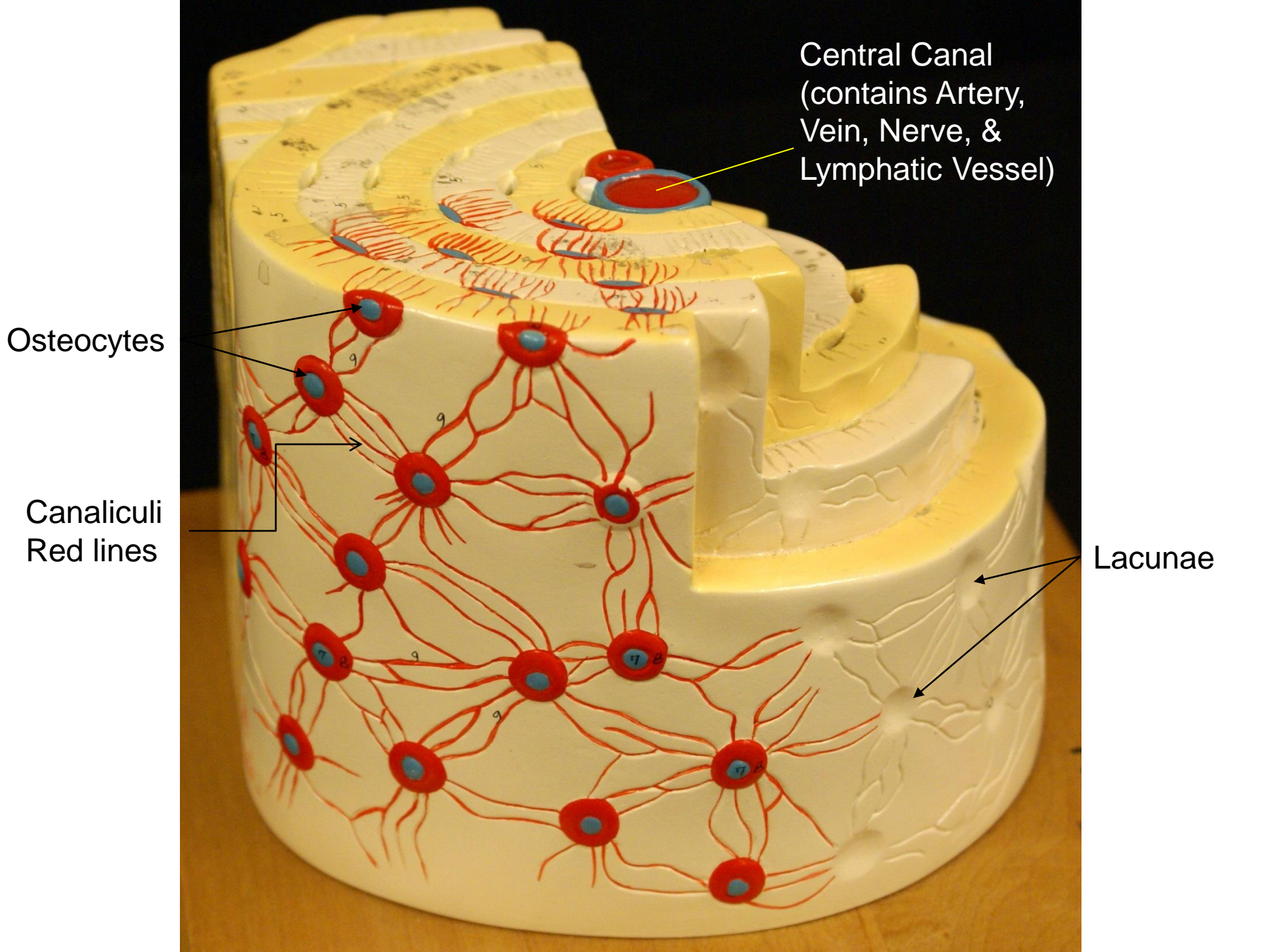
Compact Bone-Noting Lacunae and Canaliculi



Lacuna; contains an
Osteocyte.

Lacuna; contains an osteocytes

Notice the thin squiggly lines emanating from the lacuna. These are canaliculi (tiny canals) that contain the cytoplasmic processes of the osteocytes that reside within the lacuna.



Central Canal
(contains Artery,
Vein, Nerve, &
Lymphatic Vessel)

Osteocytes

Canaliculi
Red lines

Lacunae

Osteocyte
Living within
A Lacunae

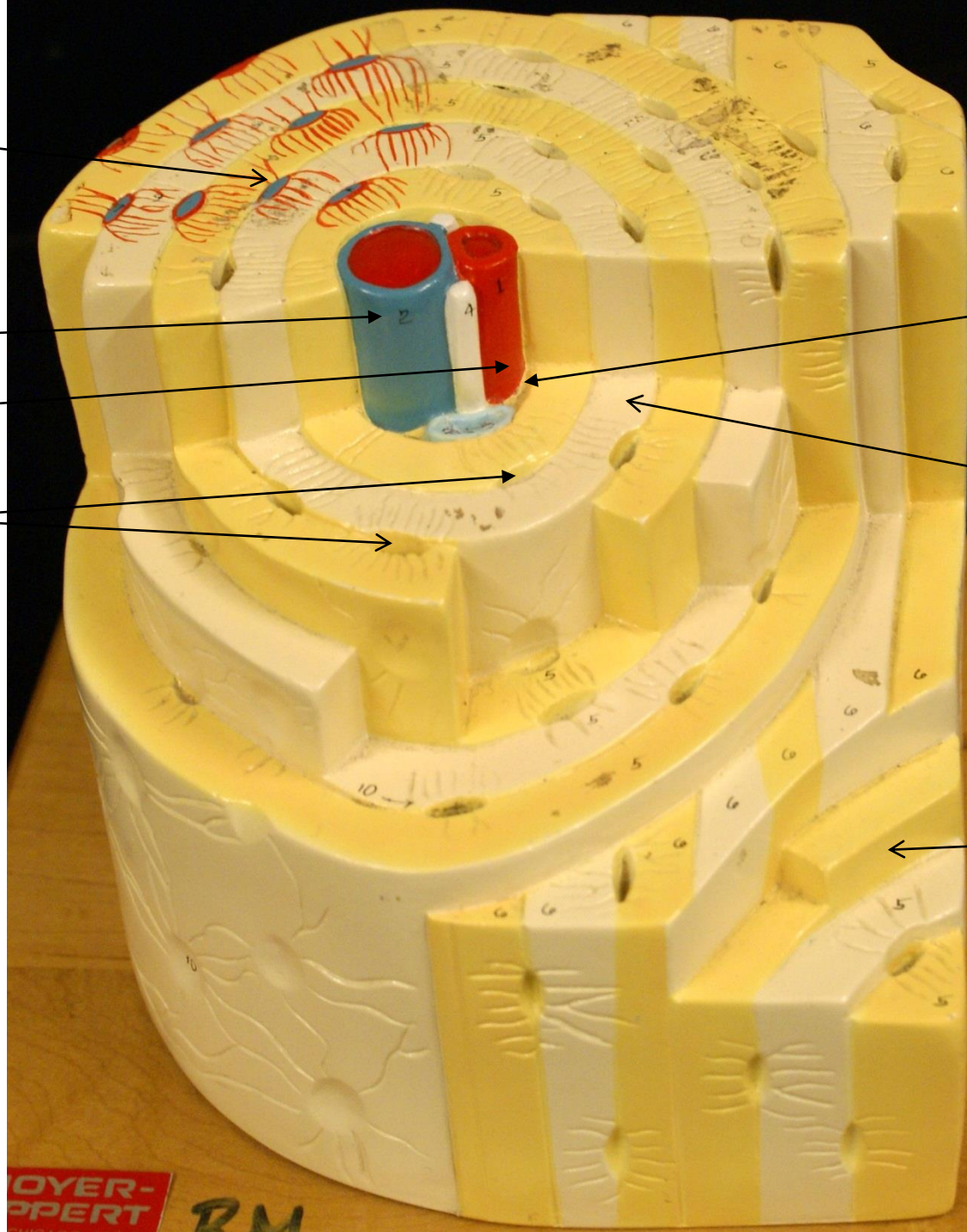
Vein
Artery

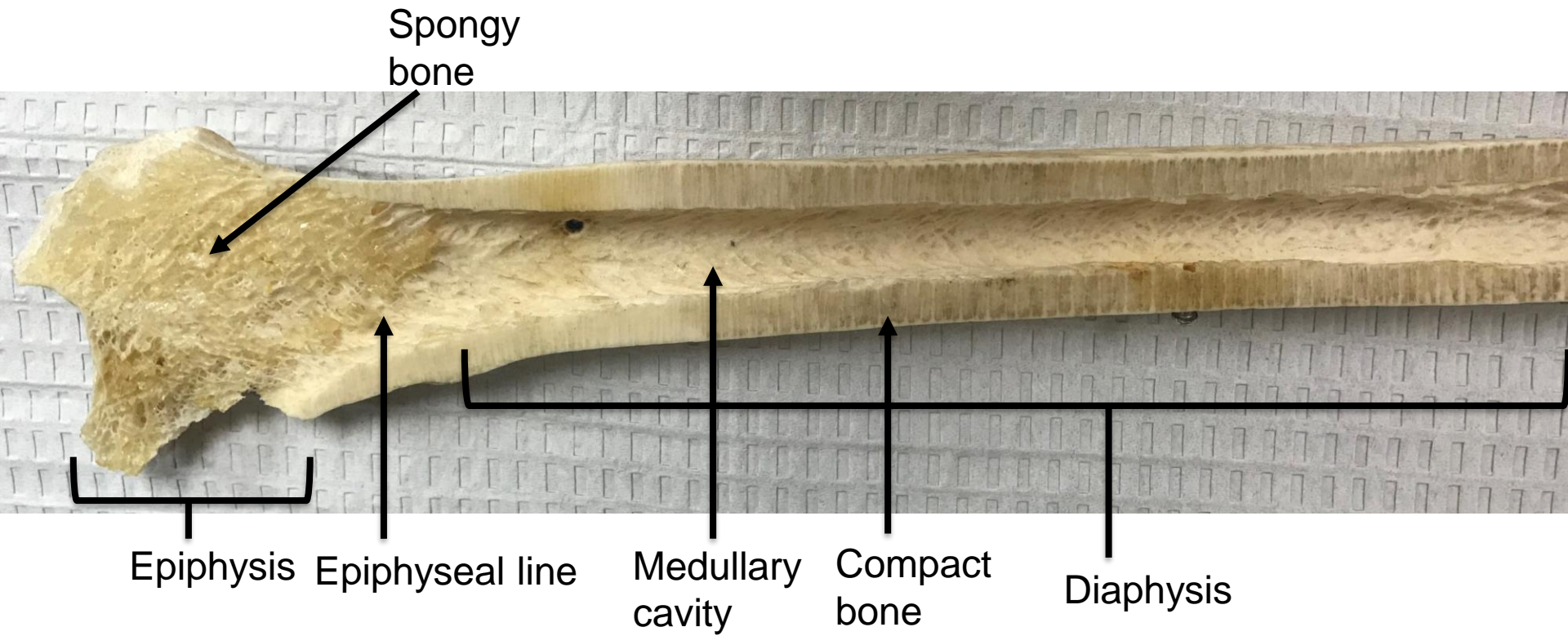
Lacunae

Central
Canal

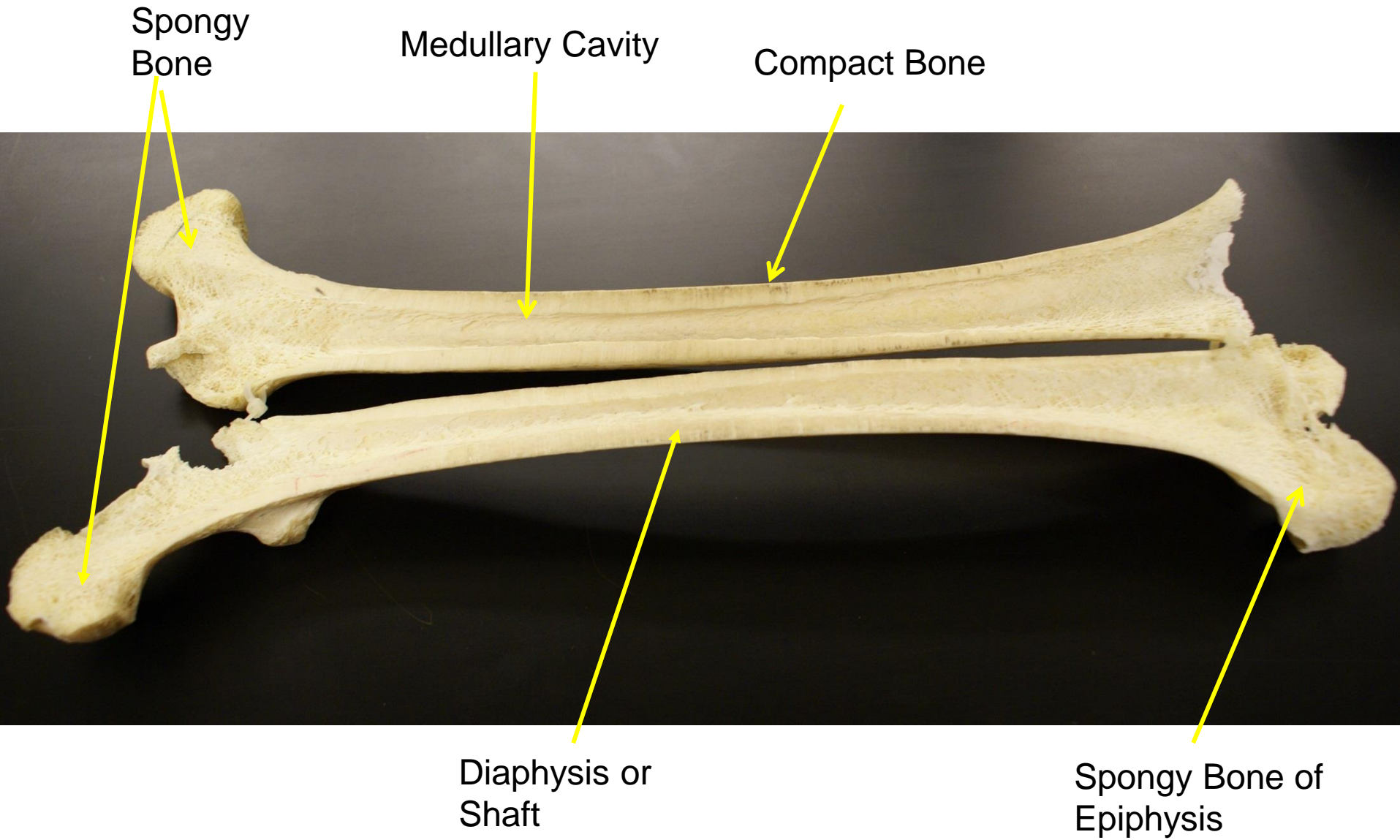
Concentric
Lamellae

Interstitial
Lamellae



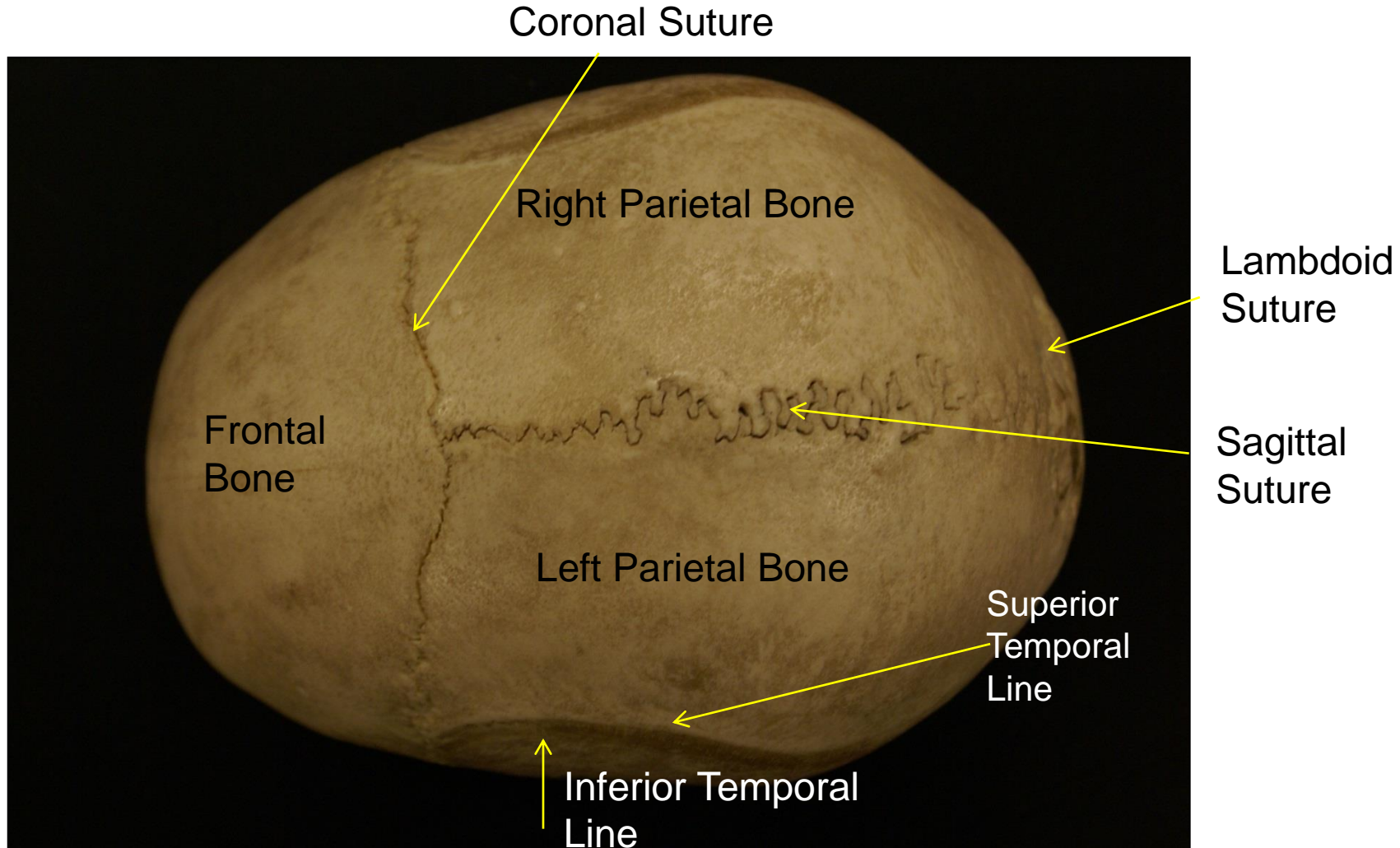


Gross Anatomy of a Long Bone

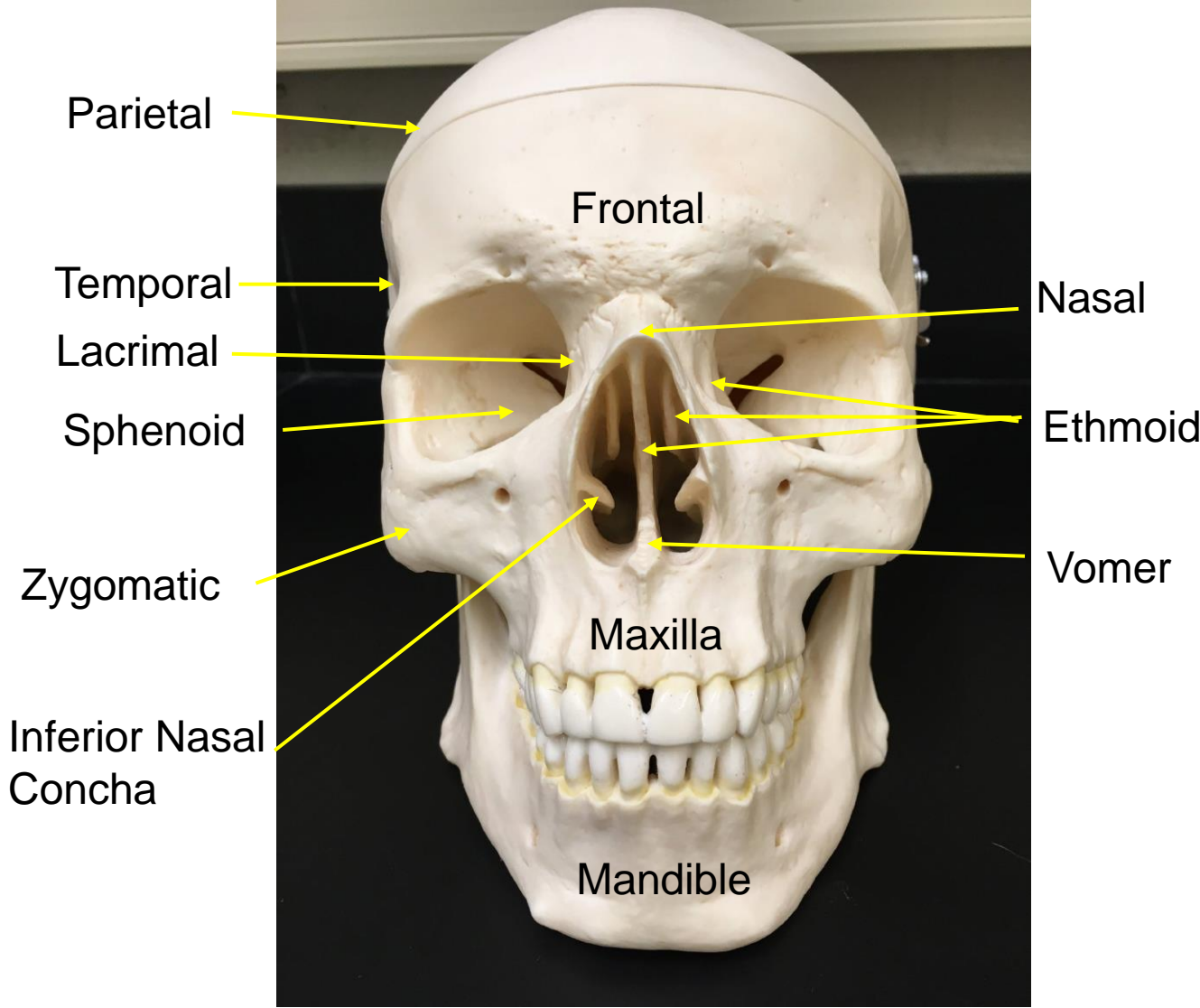
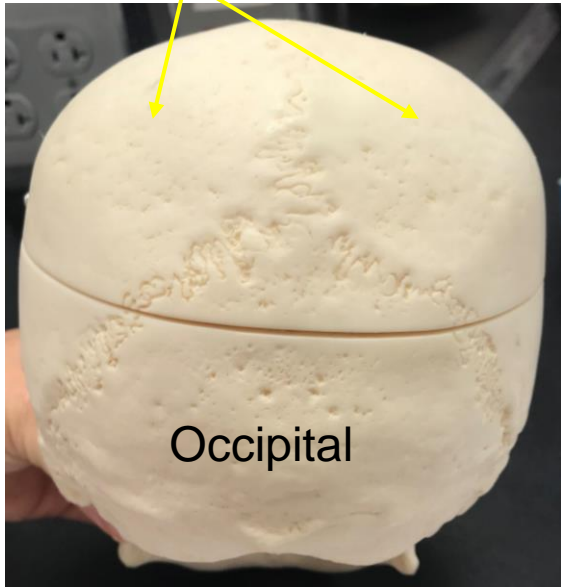


Gross Anatomy of a Long Bone

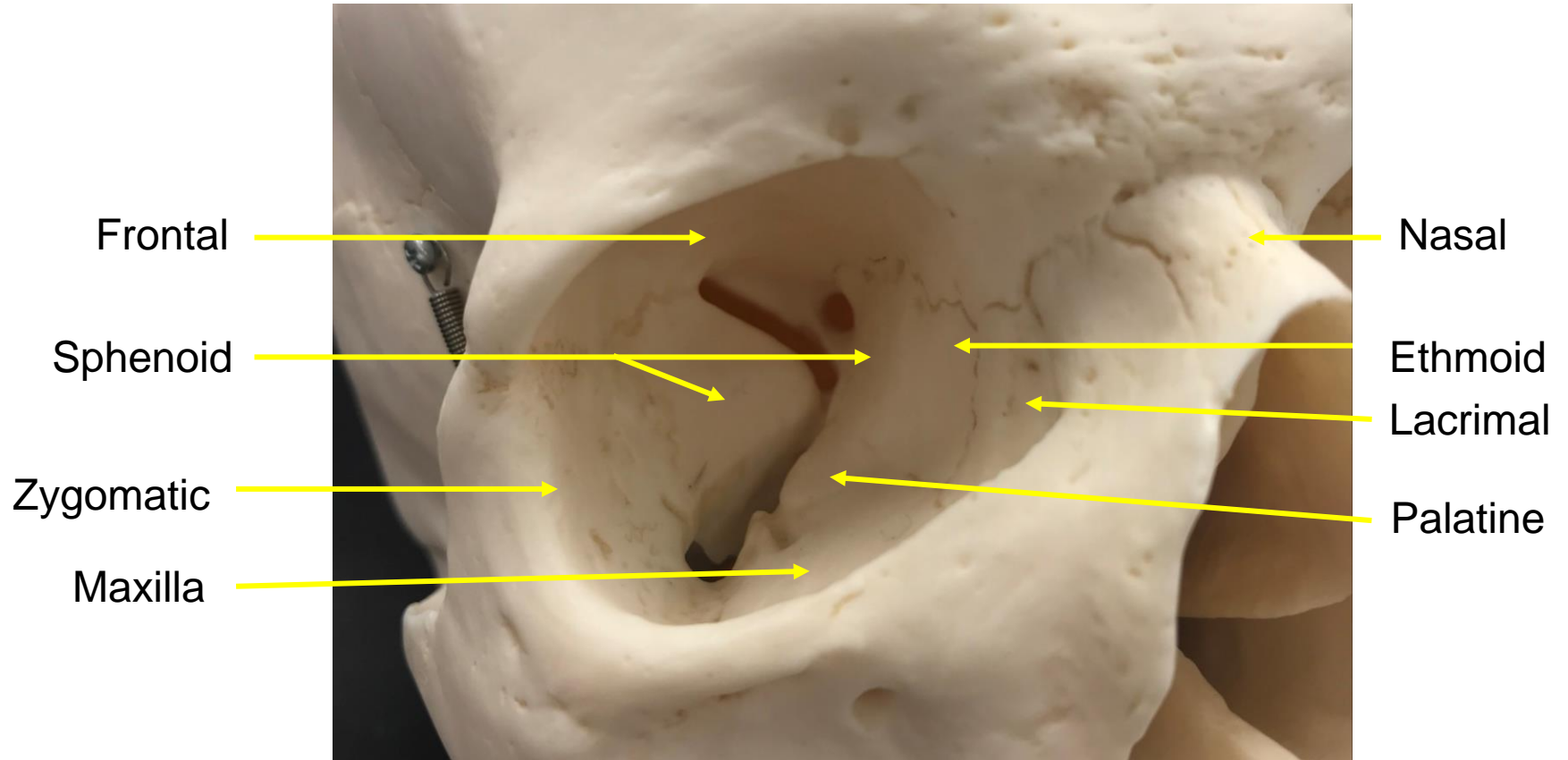
Cranial Bones and Sutures



Cranial and Facial Bones



Bones in the Orbit



Inferior View of Skull

Hard Palate
Palatine
Process of
Maxilla

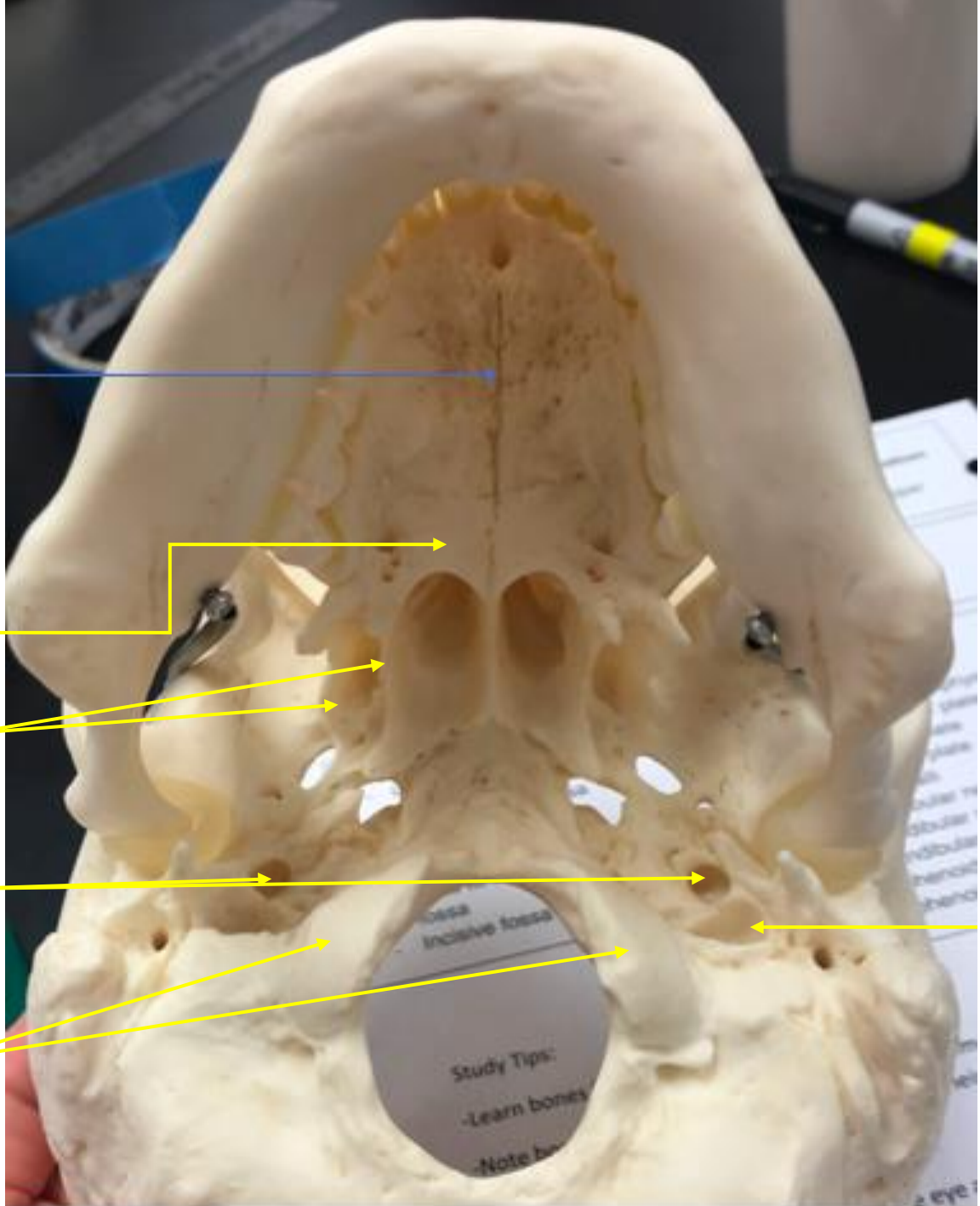
Hard palate
Palatine bone

Pterygoid
processes

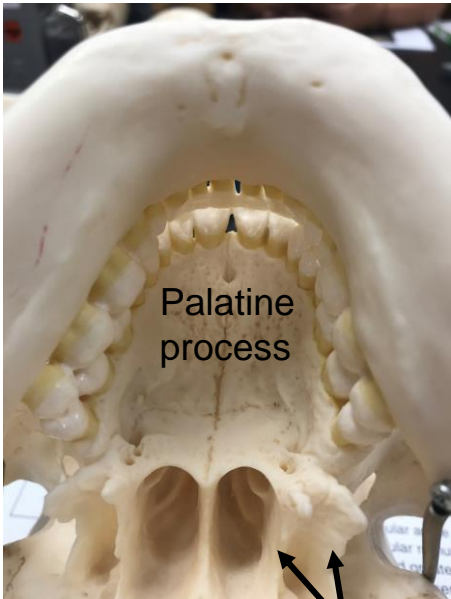
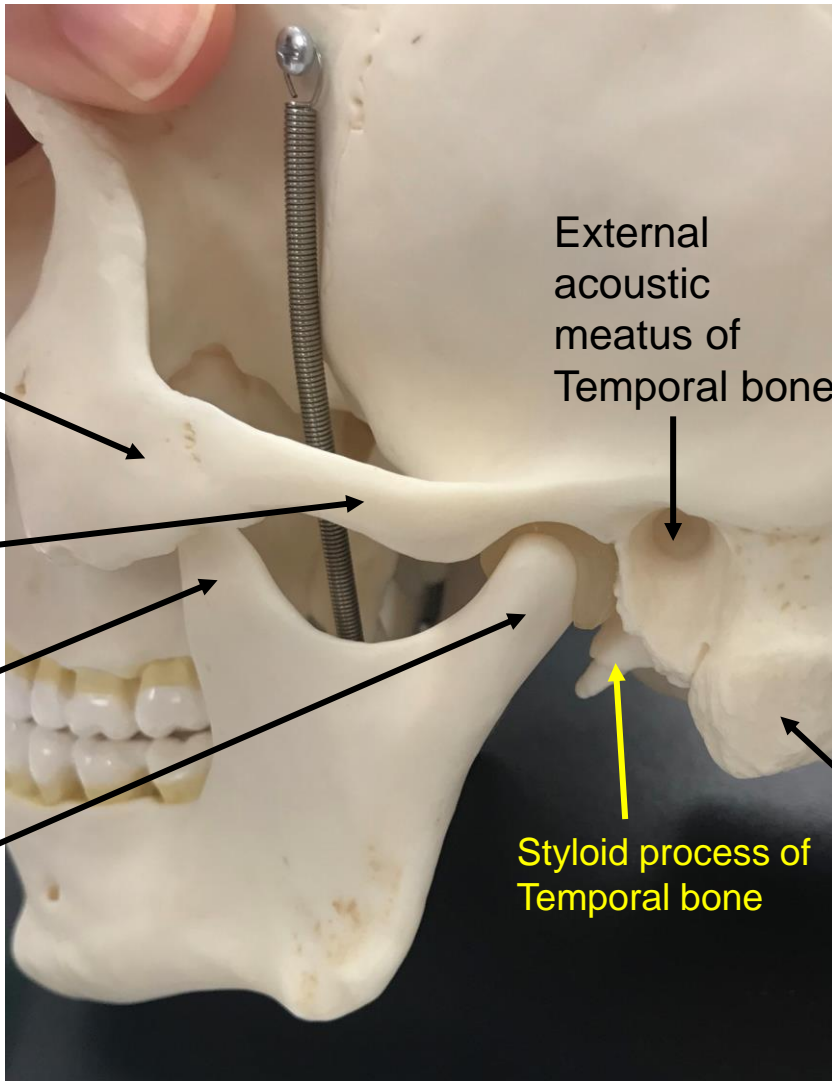
Carotid
Canal

Occipital
Condyles

Jugular
foramen

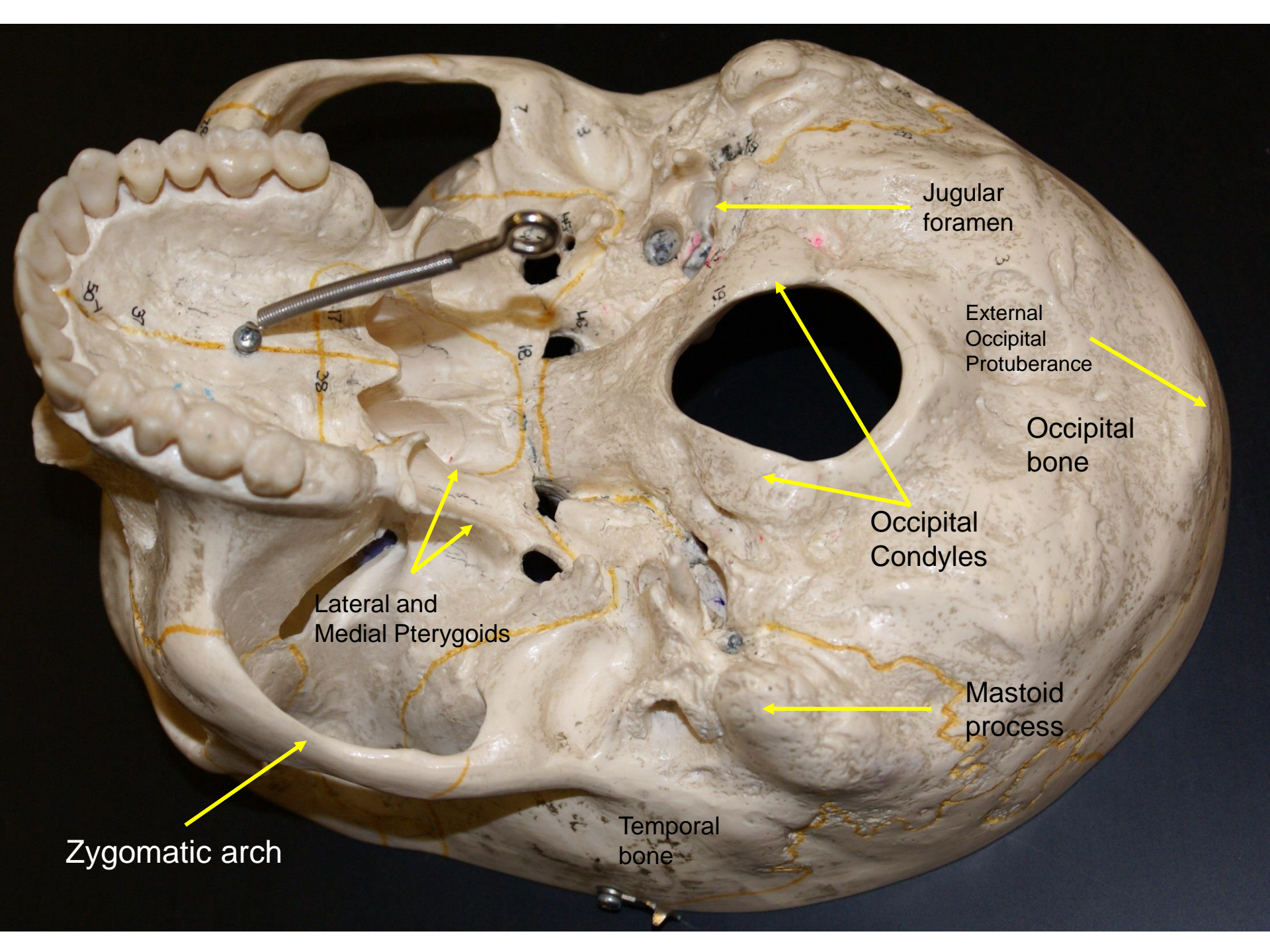


Processes



Pterygoid processes

Mastoid process of Temporal bone



Jugular foramen

External Occipital Protuberance

Occipital bone

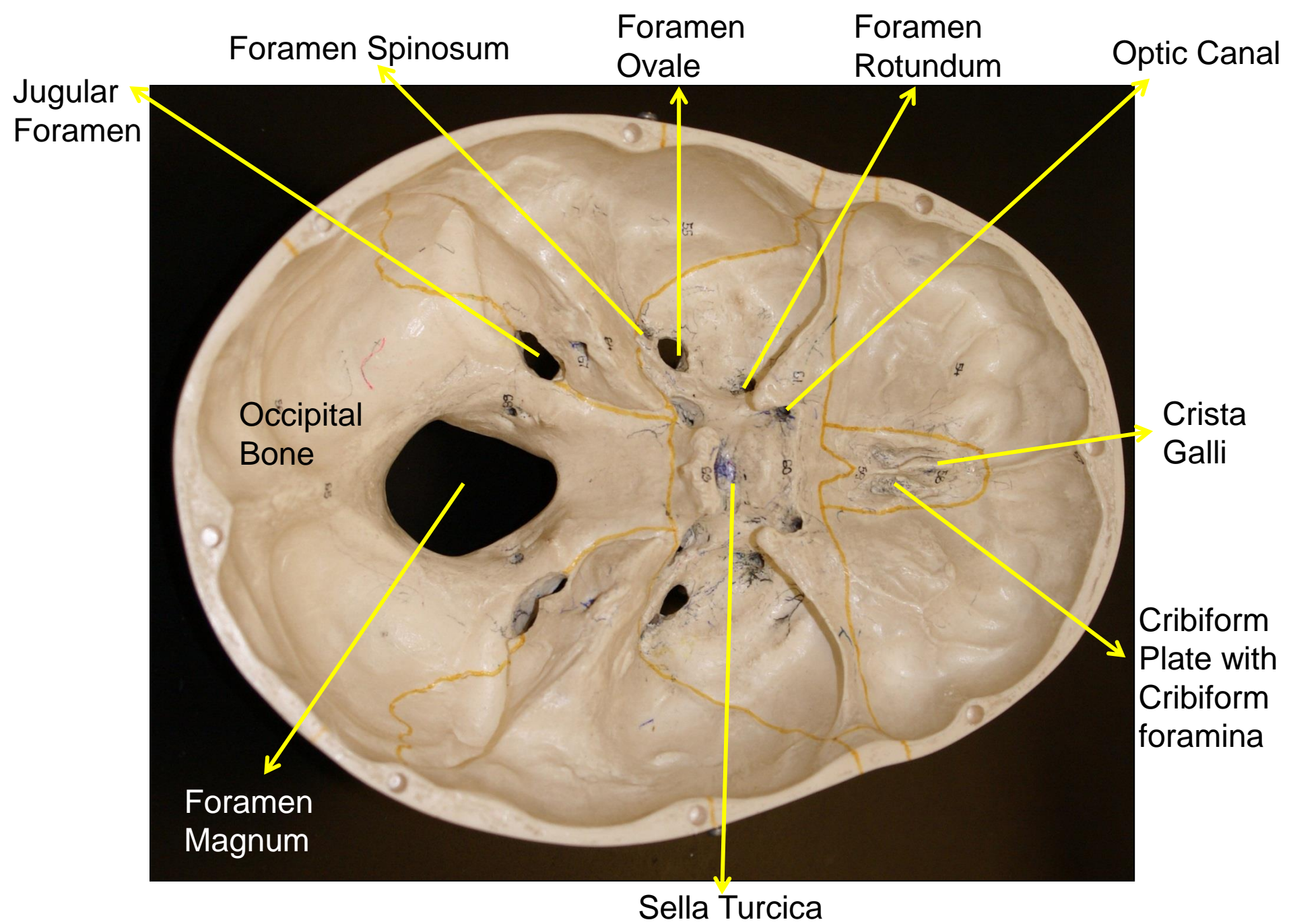
Occipital Condyles

Mastoid process

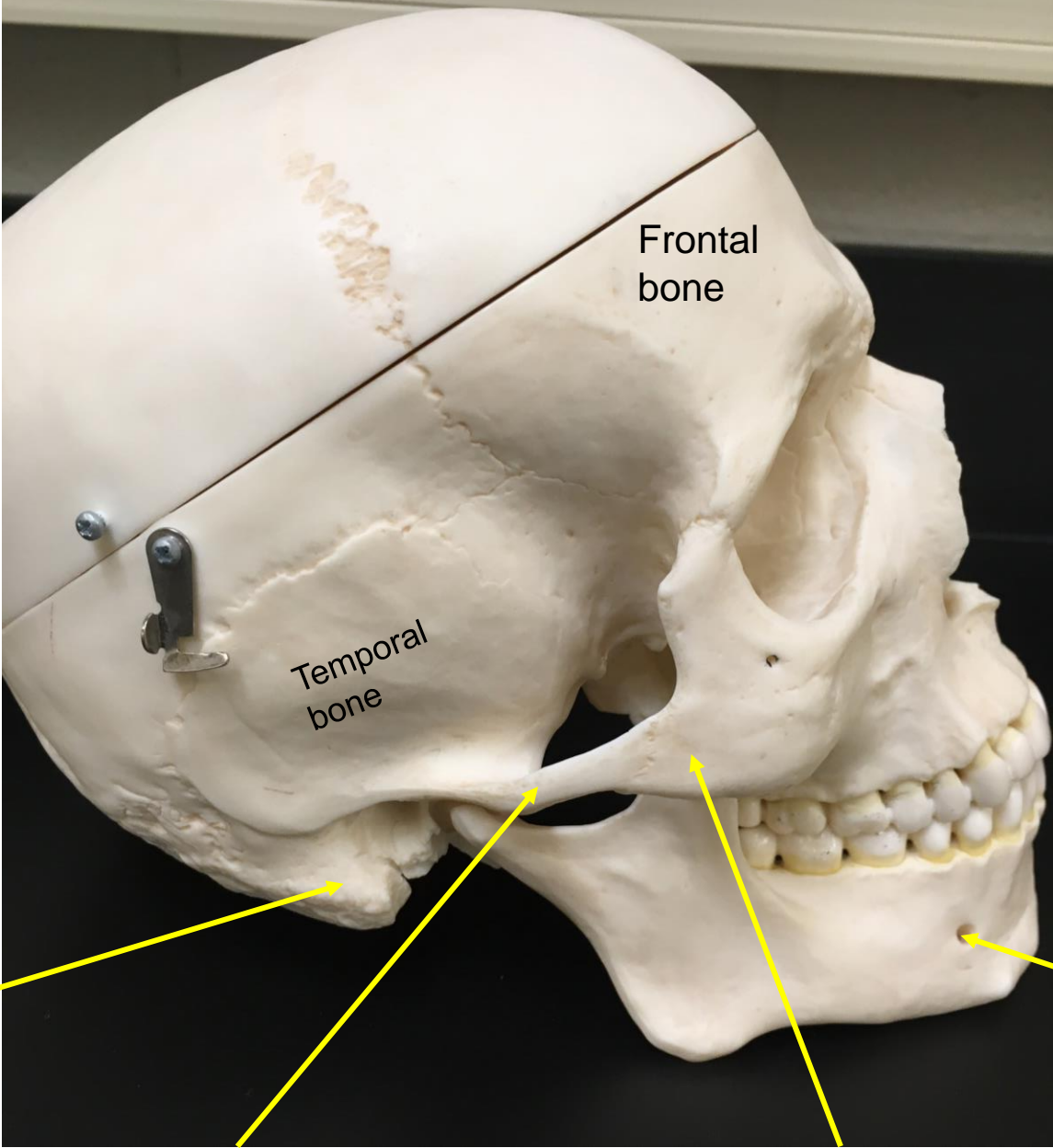
Temporal bone

Zygomatic arch

Lateral and Medial Pterygoids



Lateral View of the Skull

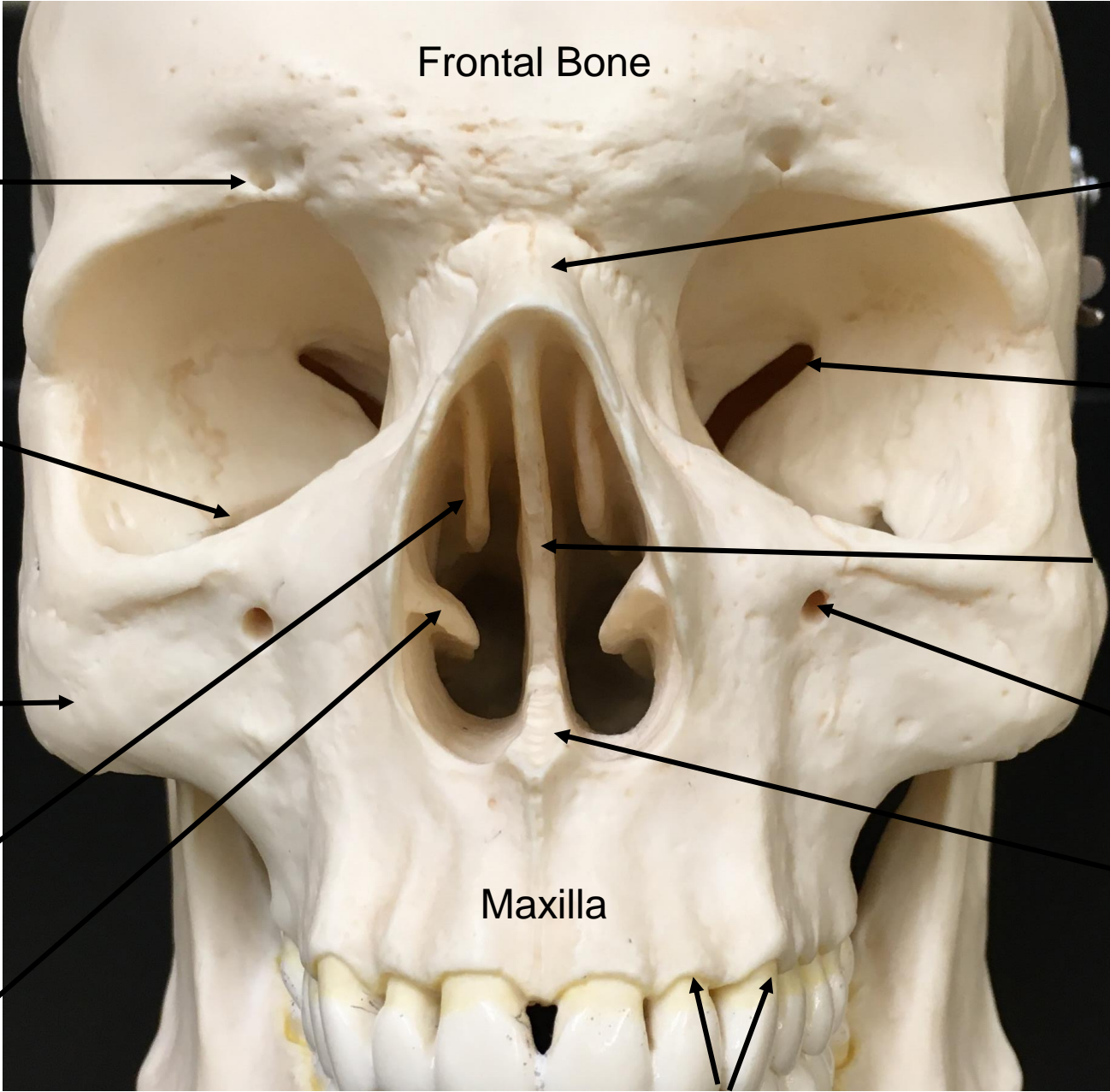


Mastoid process of the Temporal bone

Zygomatic process of the temporal bone

Temporal process of the Zygomatic bone

Mental foramen



Frontal Bone

Supraorbital Notch

Nasal Bone

Inferior Orbital Fissure

Superior Orbital Fissure

Zygomatic Bone

Perpendicular Plate of the Ethmoid Bone

Middle Nasal Concha

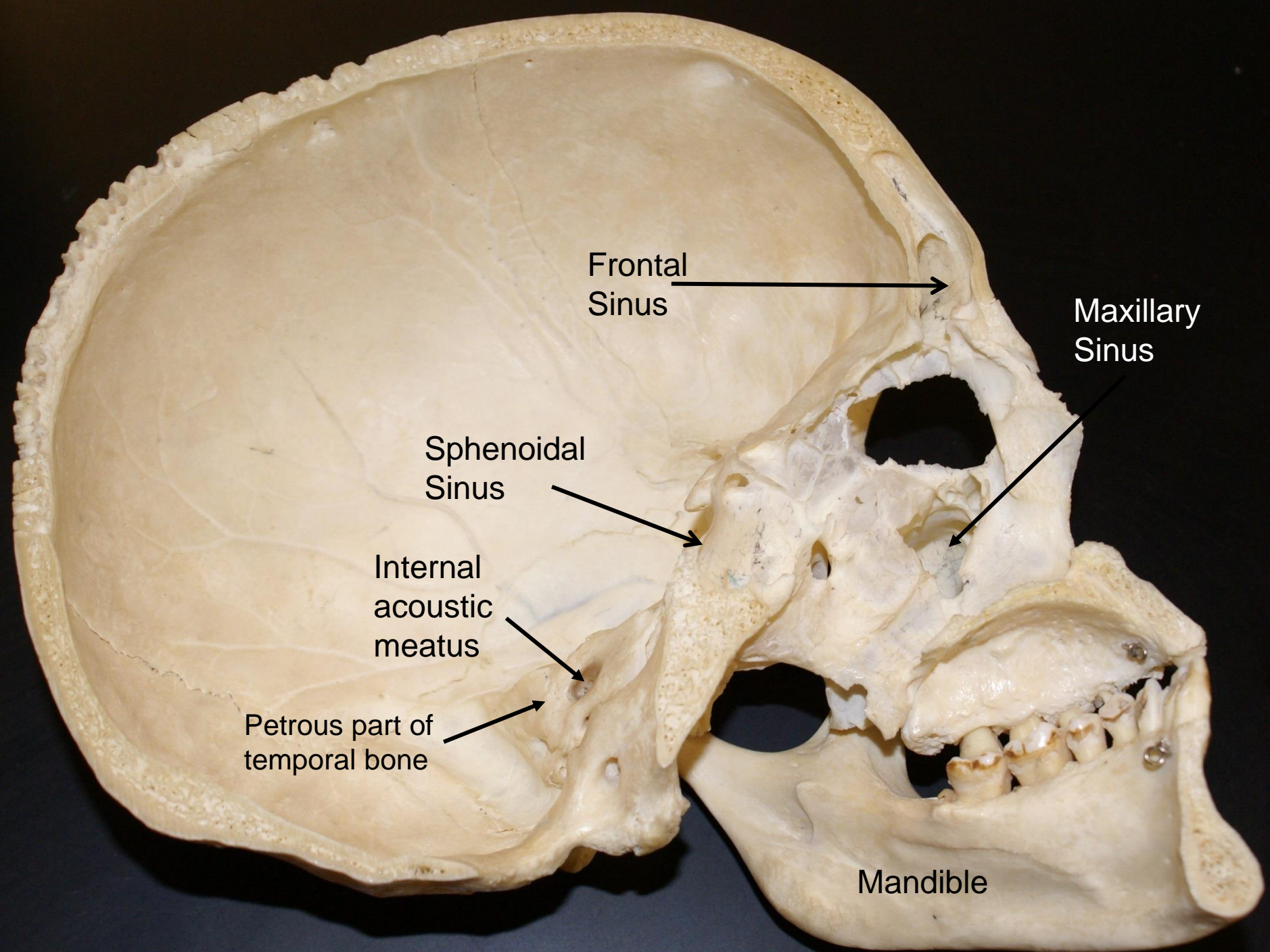
Infraorbital foramen

Inferior Nasal Concha

Maxilla

Vomer

Alveolar processes



Frontal
Sinus

Maxillary
Sinus

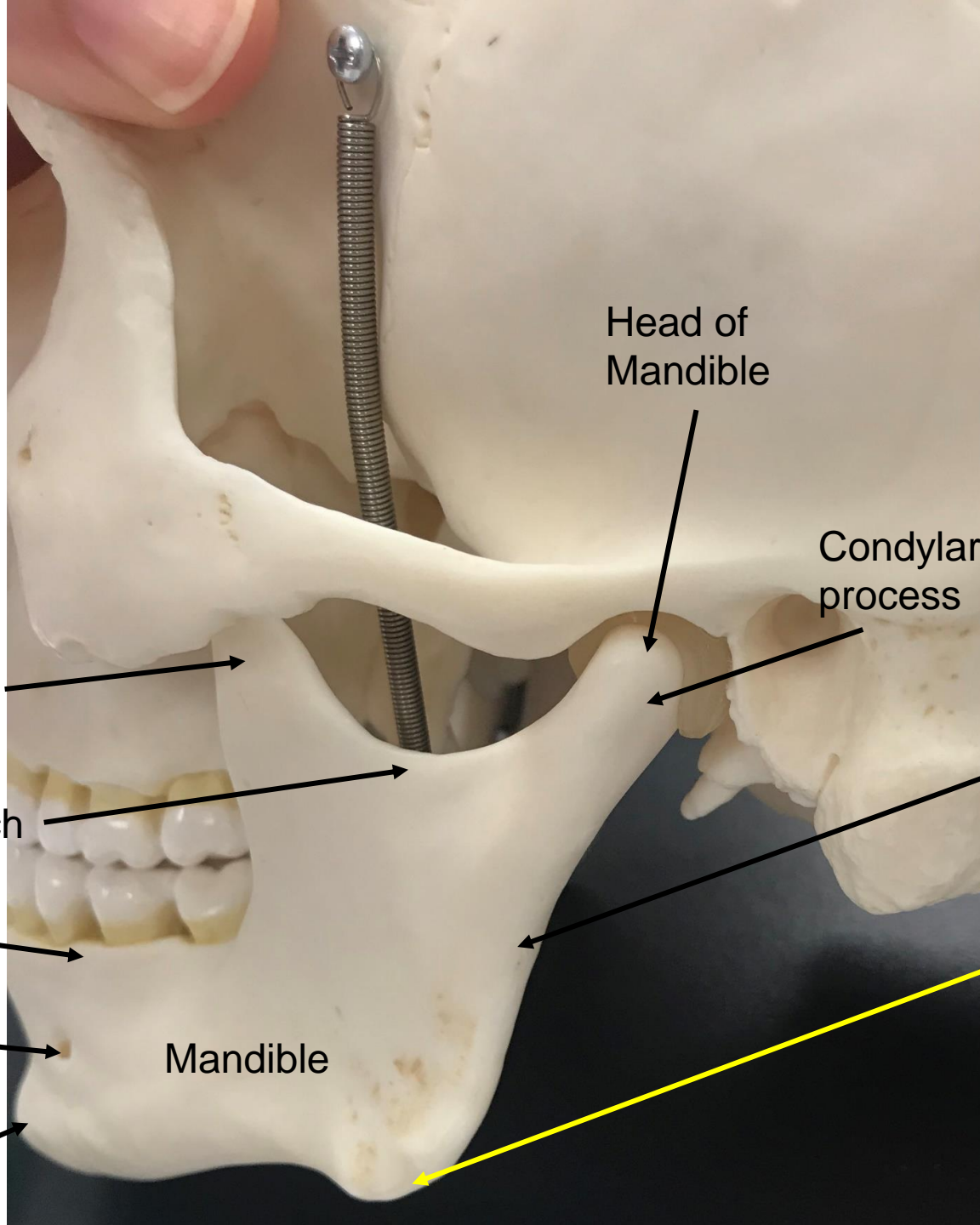
Sphenoidal
Sinus

Internal
acoustic
meatus

Petrous part of
temporal bone

Mandible

Mandible



Head of Mandible

Condylar process

Ramus

Mandibular angle

Coronoid process

Mandibular notch

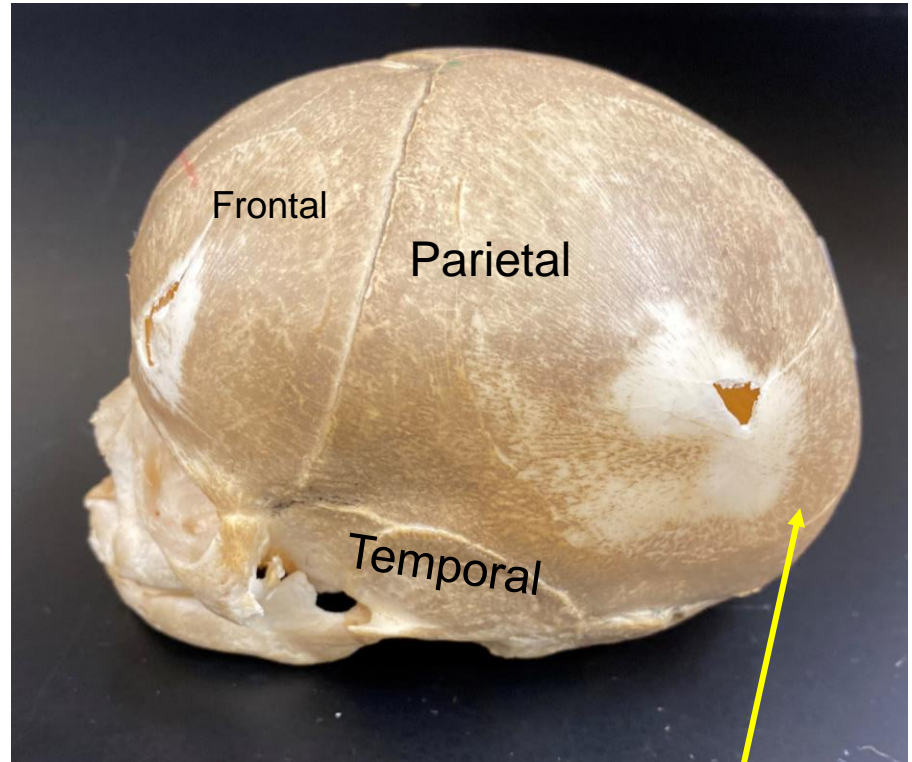
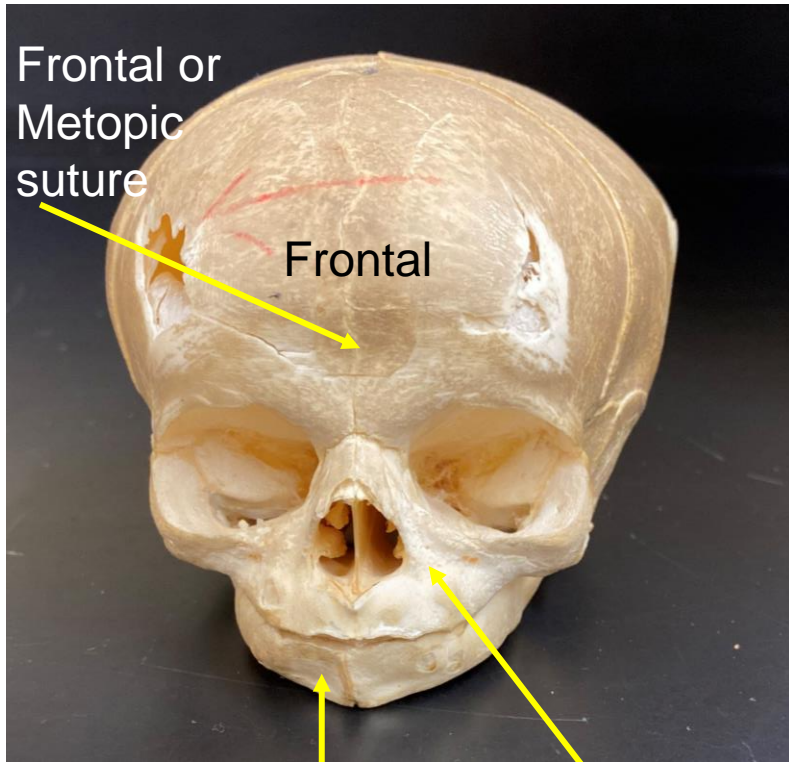
Alveolar processes

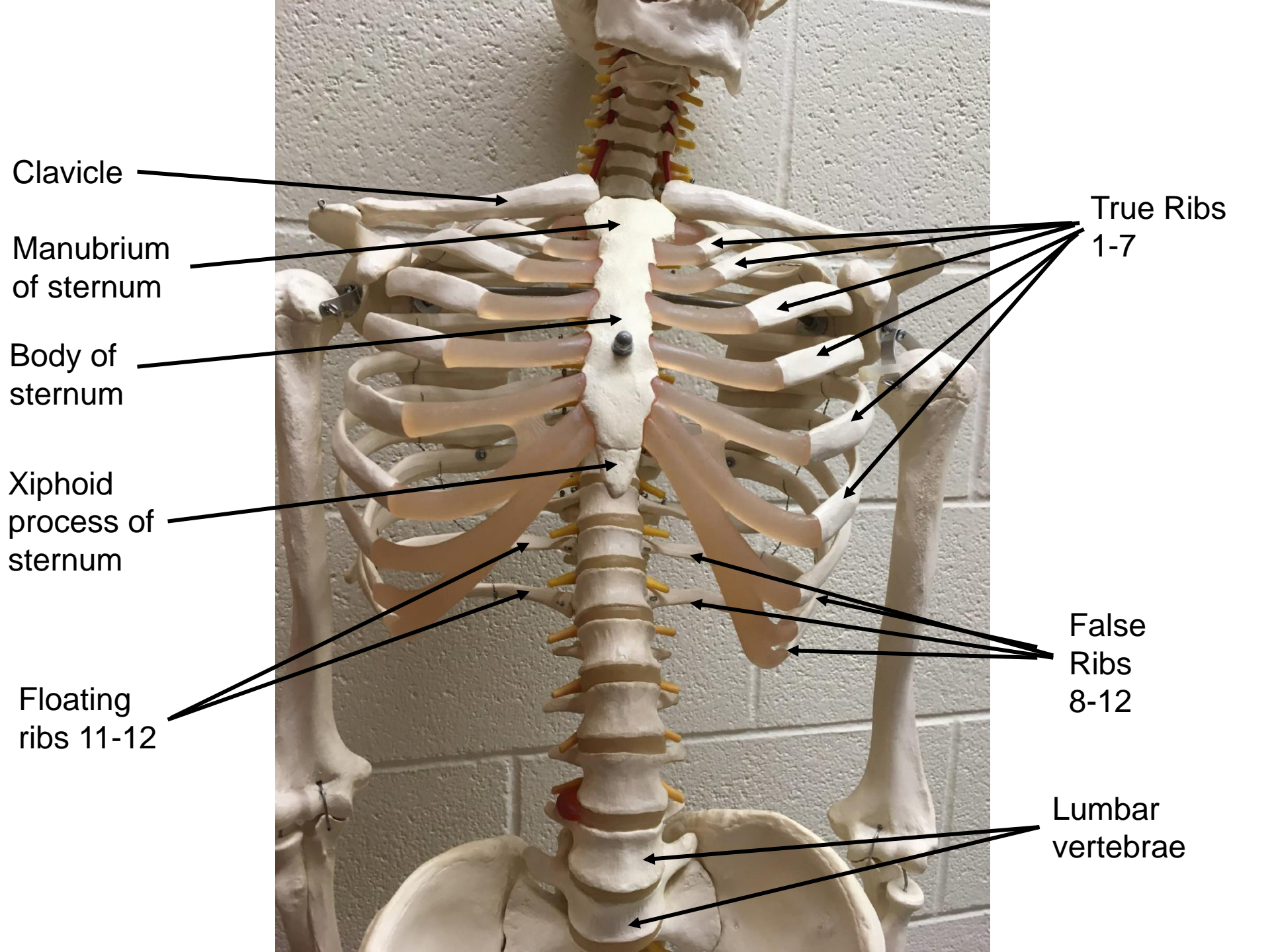
Mental foramen

Mental protuberance

Mandible

Fetal Skull and Facial Bones





Clavicle

Manubrium
of sternum

Body of
sternum

Xiphoid
process of
sternum

Floating
ribs 11-12

True Ribs
1-7

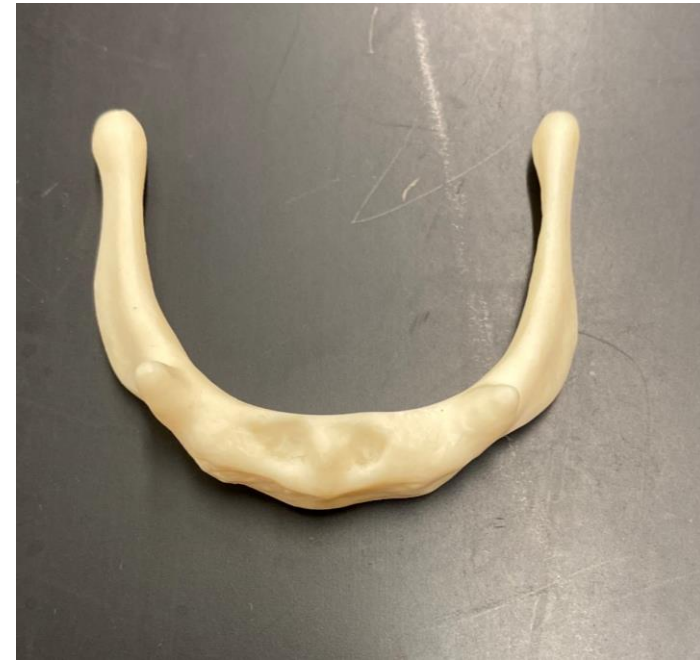
False
Ribs
8-12

Lumbar
vertebrae

Hyoid Bone



Anterior View of
Hyoid Bone



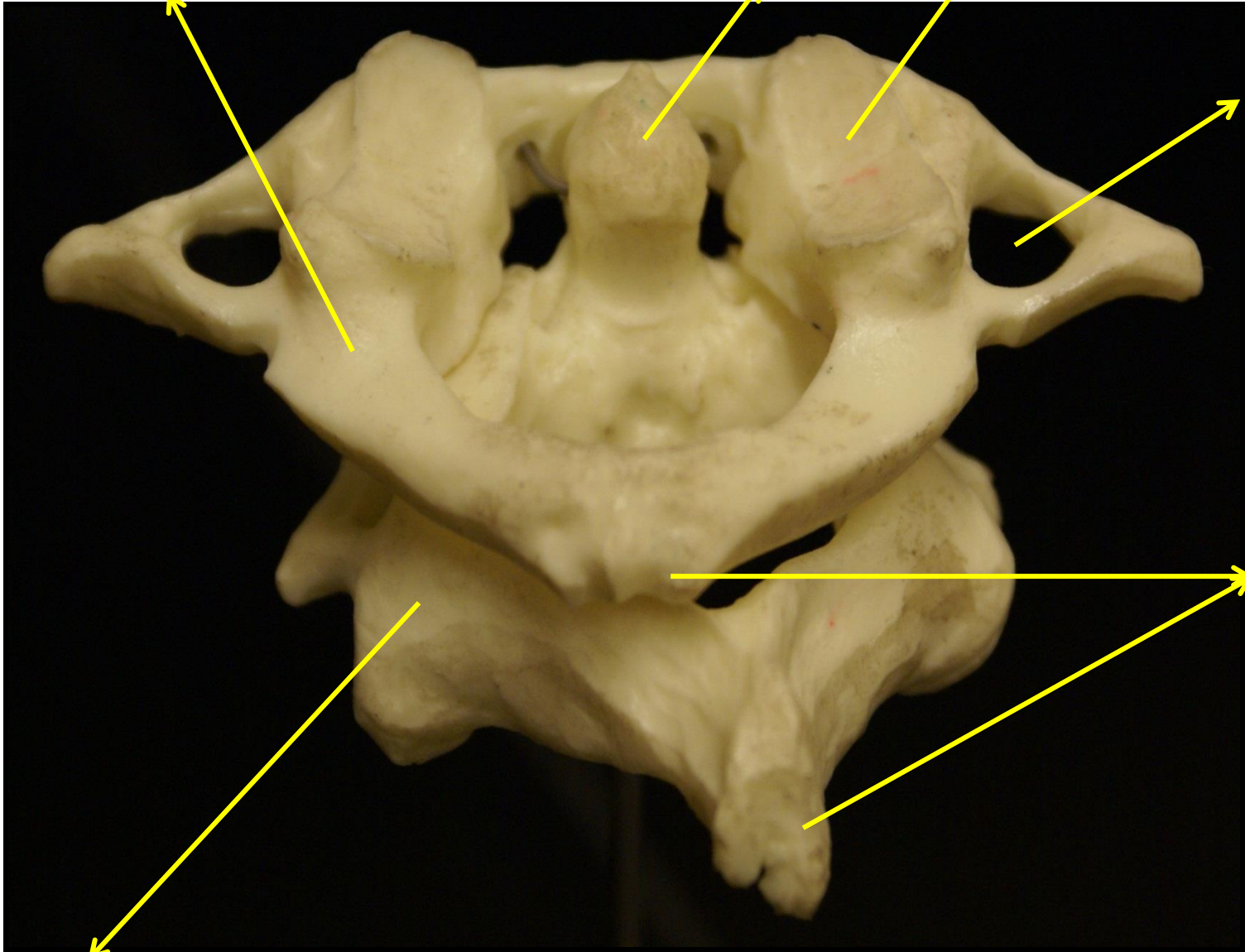
Superior View
of Hyoid Bone

C1 Atlas

Anterior Side

Dens of Axis

Superior Articular Facet of Atlas



Transverse Foramen

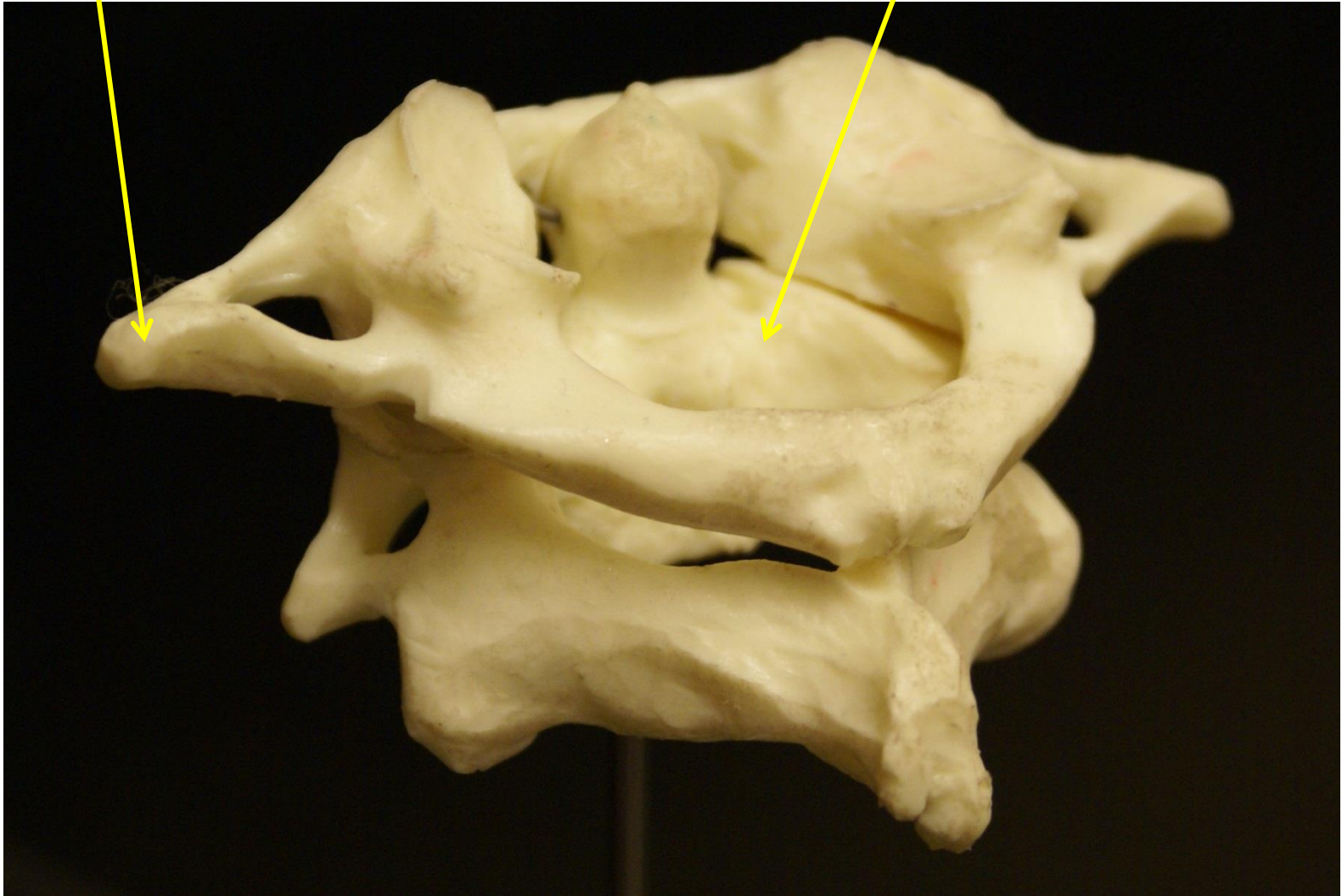
Spinous Process
Posterior
Sides of
Atlas and
Axis

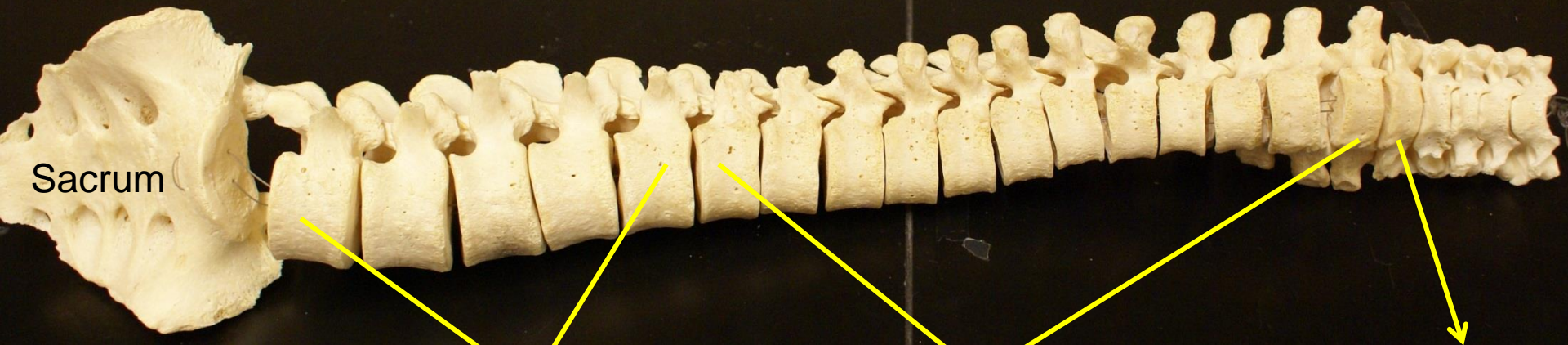
C2 Axis

Posterior side

Transverse Process

This hole (Lumen) is the vertebral Foramen
This is where the spinal cord resides





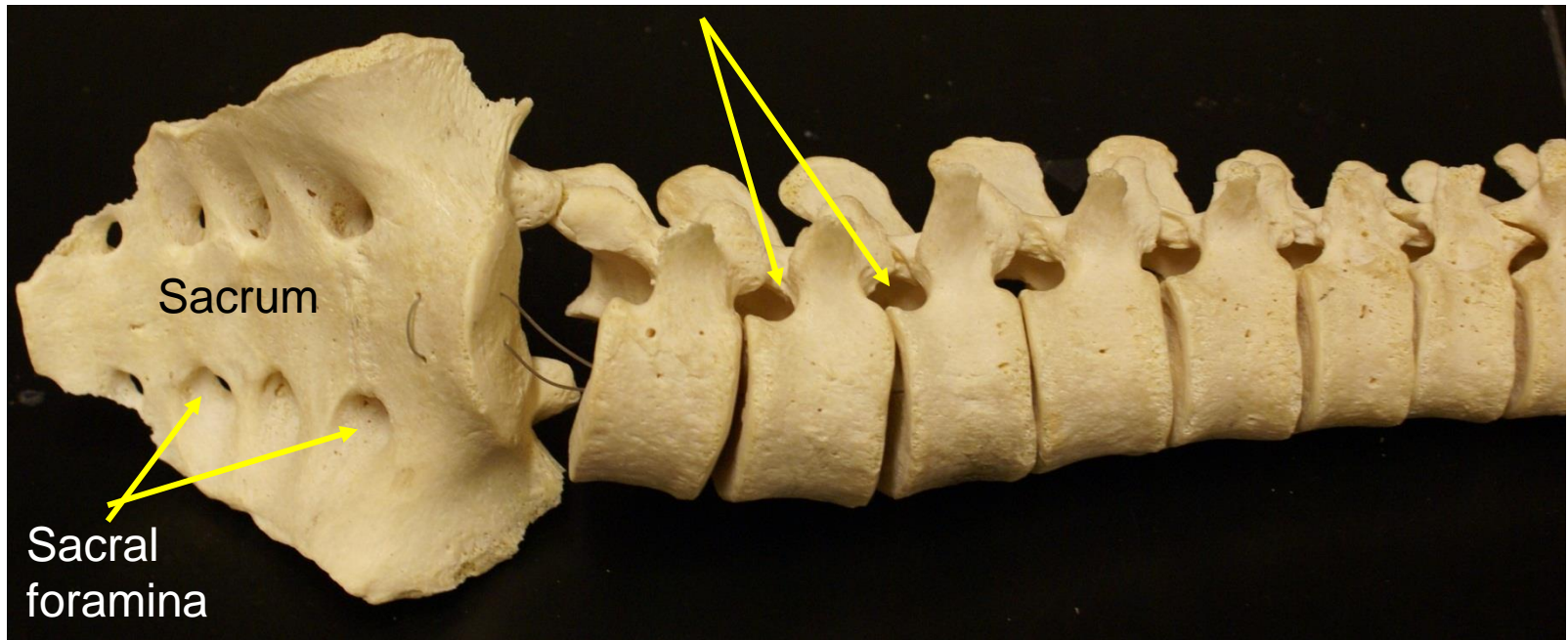
Sacrum

Lumbar L1-L5

Thoracic T1- T12

Cervical
C3-C7

Intervertebral foramina



Sacrum

Sacral
foramina

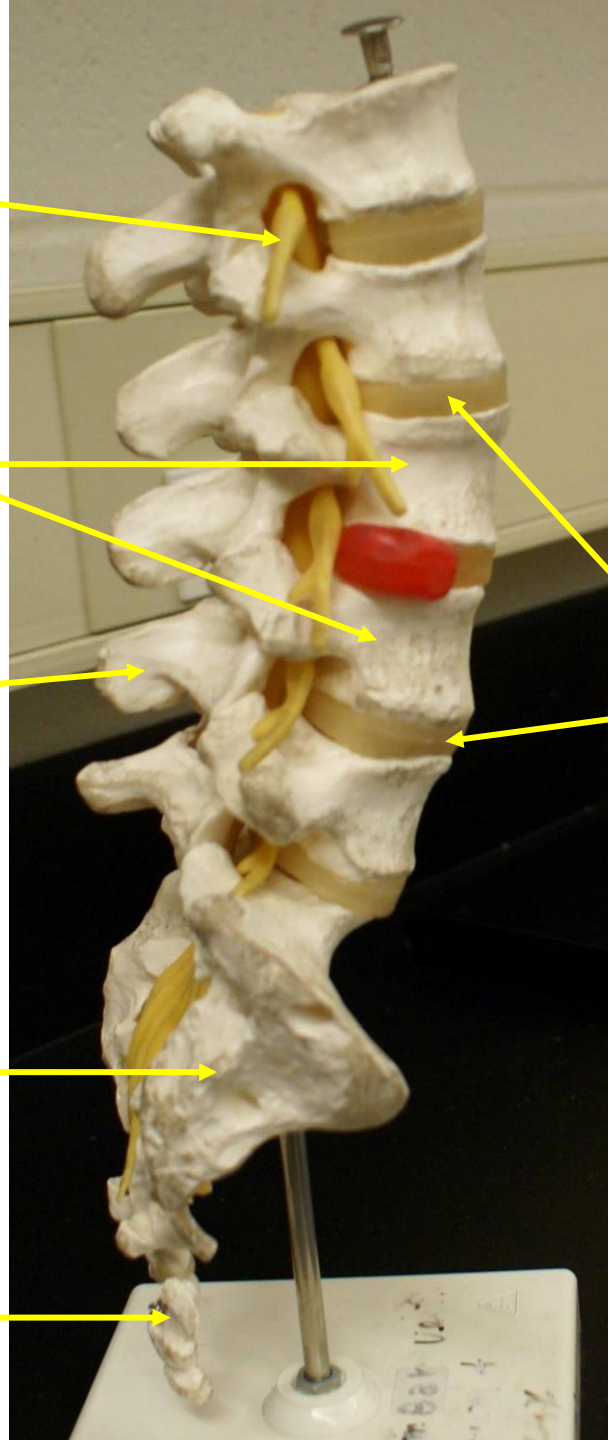
Intervertebral
foramen

Lumbar
vertebrae

Spinous
Process

Sacrum

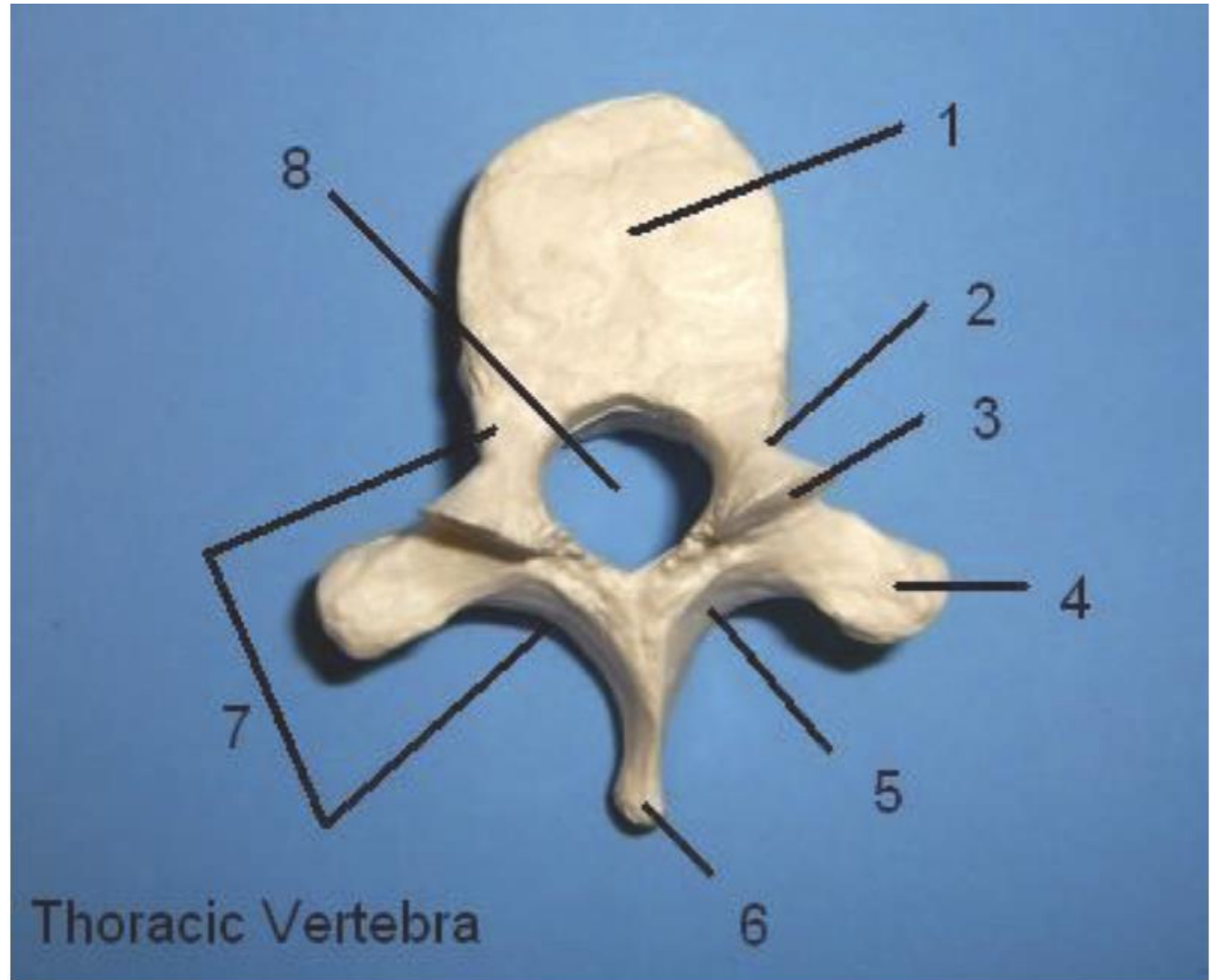
Coccyx



Intervertebral
Discs

Typical Vertebrae Markings

1. Body
2. Pedicle
3. Inferior articular surface
4. Transverse process
5. Lamina
6. Spinous process
7. Vertebral arch
8. Vertebral foramen



Smaller vertebral body

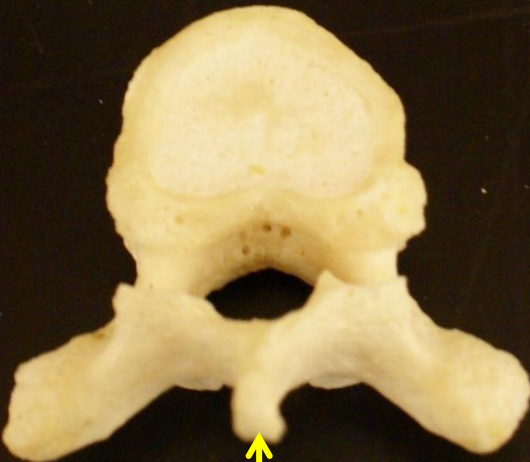
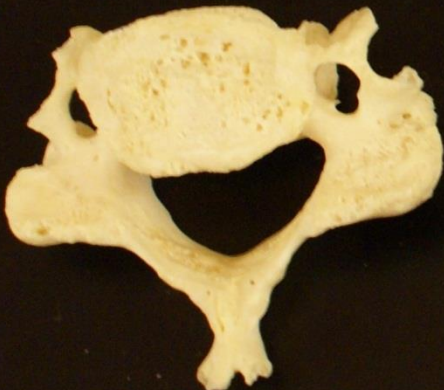
Medium sized vertebral body

Large vertebral body

Cervical Vertebrae

Thoracic Vertebrae

Lumbar Vertebrae



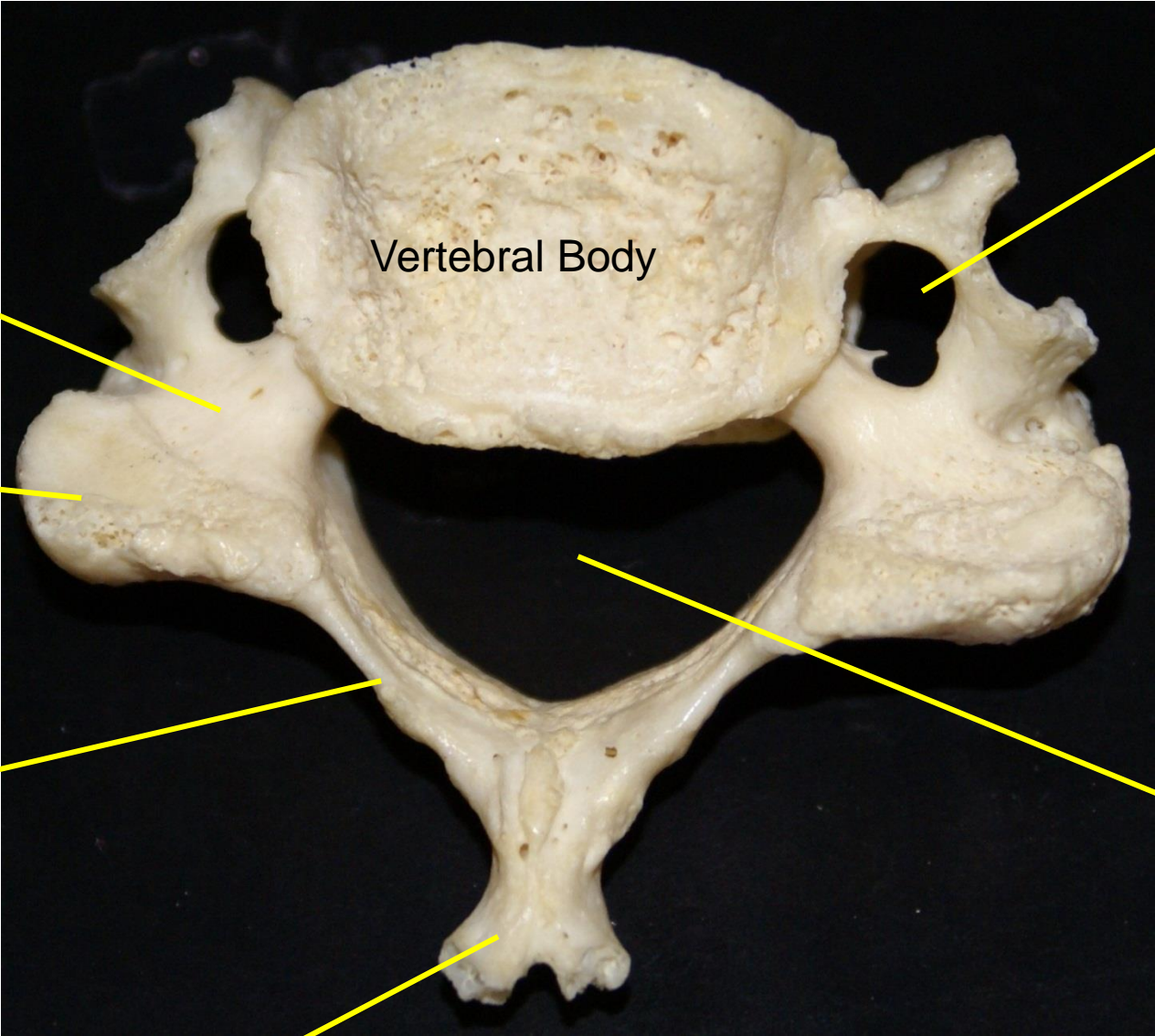
Bi-fid spinous process

Long spinous process

Shorter thicker spinous process

Label each type of vertebrae
Add characteristics of each





Transverse Foramen

Pedicle

Vertebral Body

Transverse Process

Lamina

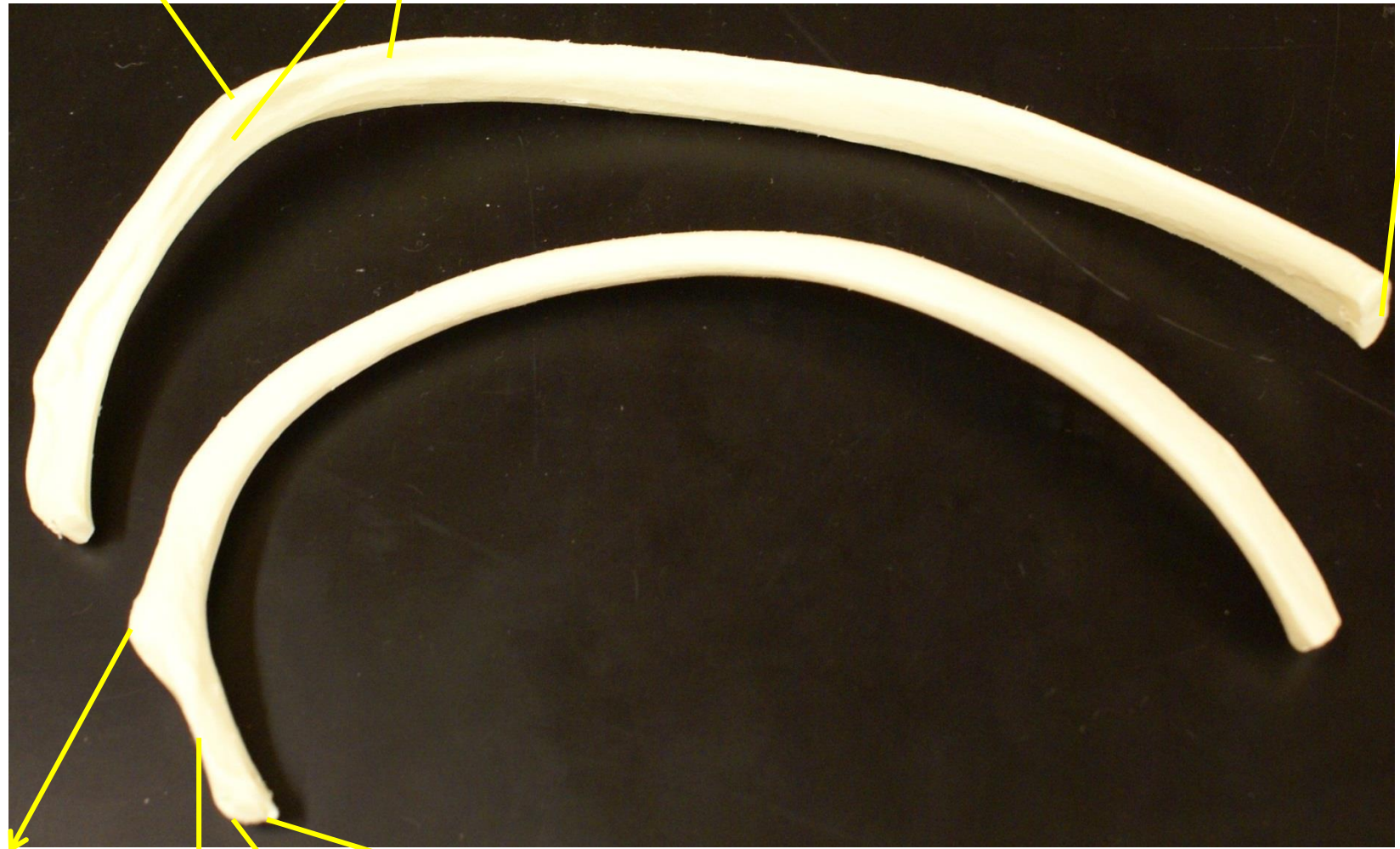
Vertebral Canal

Bifid spinous process of Cervical vertebra

Costal Angle

Costal Groove

Attachment of
Costal Cartilage
"Sternal End"



Tubercle

Neck

Head

Articular facets
On the head

Sternum

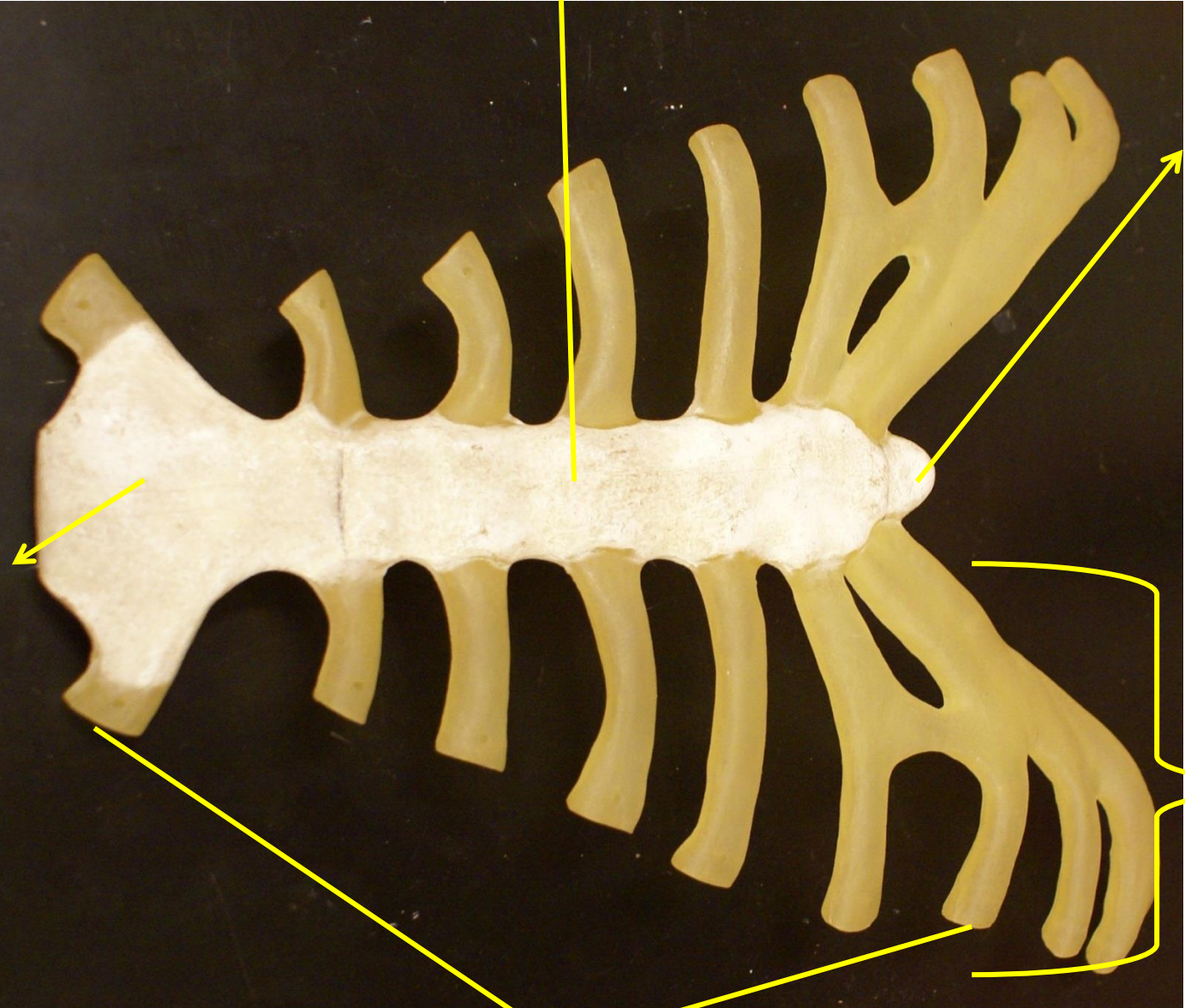
Body of Sternum

Xiphoid
Process
Of Sternum

Manubrium
Of Sternum

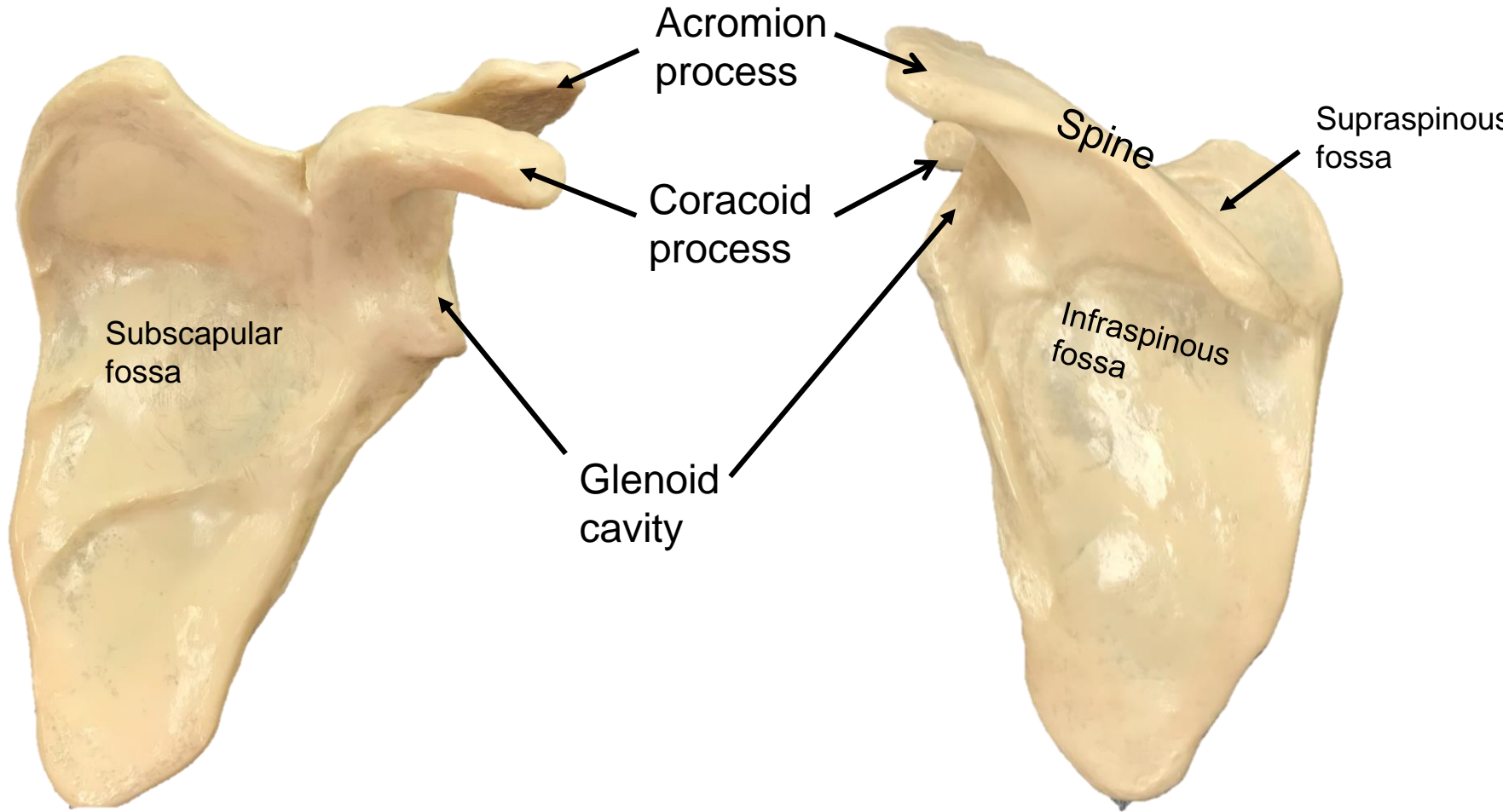
Coastal
Cartilage

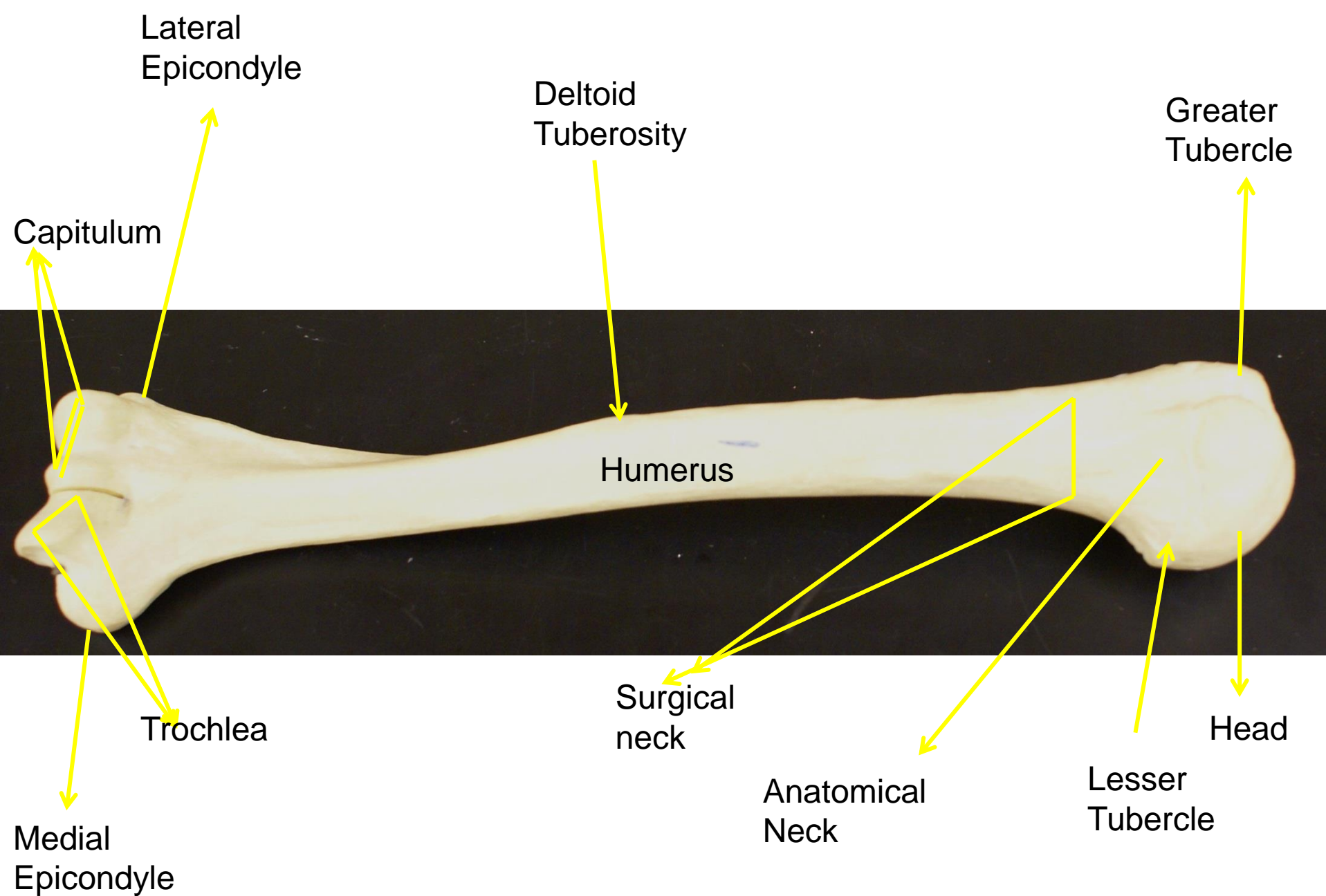
True Ribs 1-7



Scapula:
Anterior view

Scapula:
Posterior view





Humerus
Left side
Proximal
End

Glenoid
cavity of
scapula

Head of
humerus

Surgical
neck of
humerus



Greater
tubercle

Intertubercular
sulcus

Lesser
tubercle

Metaphyseal line

Humerus
Left side
Distal End

Anterior View of the
Elbow Region

Coronoid
fossa

Medial
Epicondyle

Trochlea

Radial notch
of ulna

Humerus

Lateral
Epicondyle

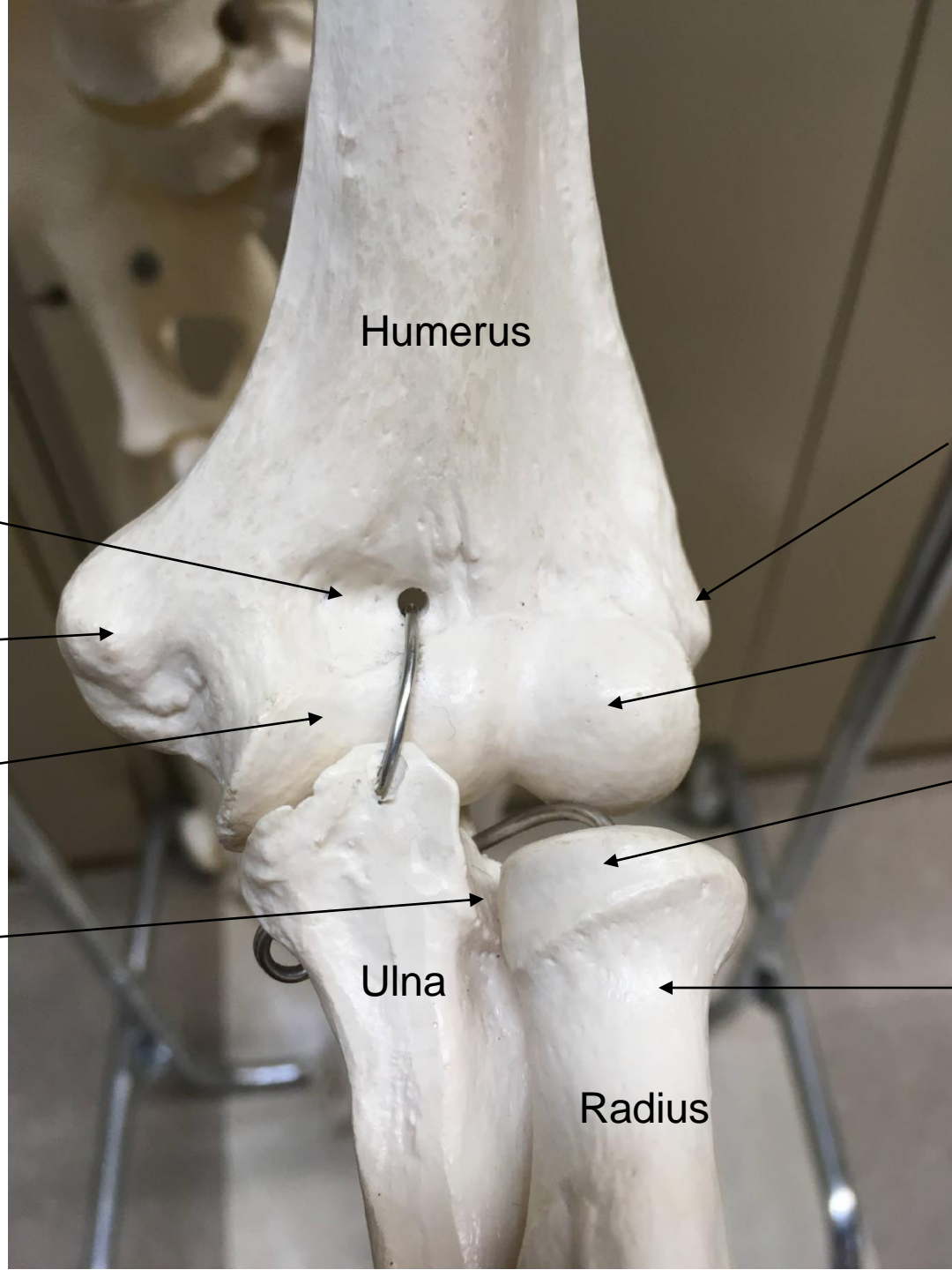
Capitulum

Head of
Radius

Neck of
Radius

Ulna

Radius



Radius and Ulna

Ulna

Head of Radius

Neck of Radius

Radial
styloid
process



Ulna

Coronoid process

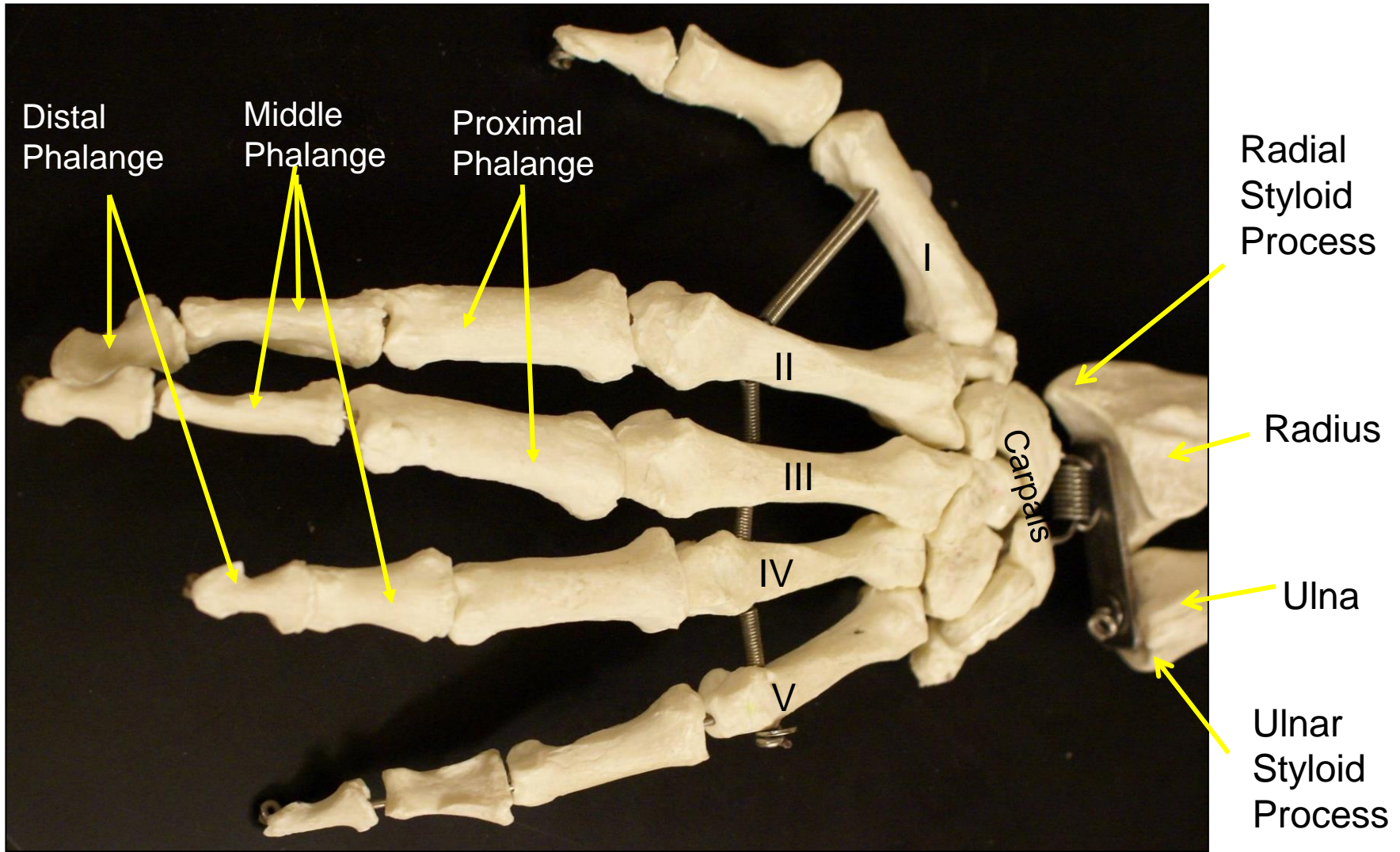
Olecranon

Trochlear notch

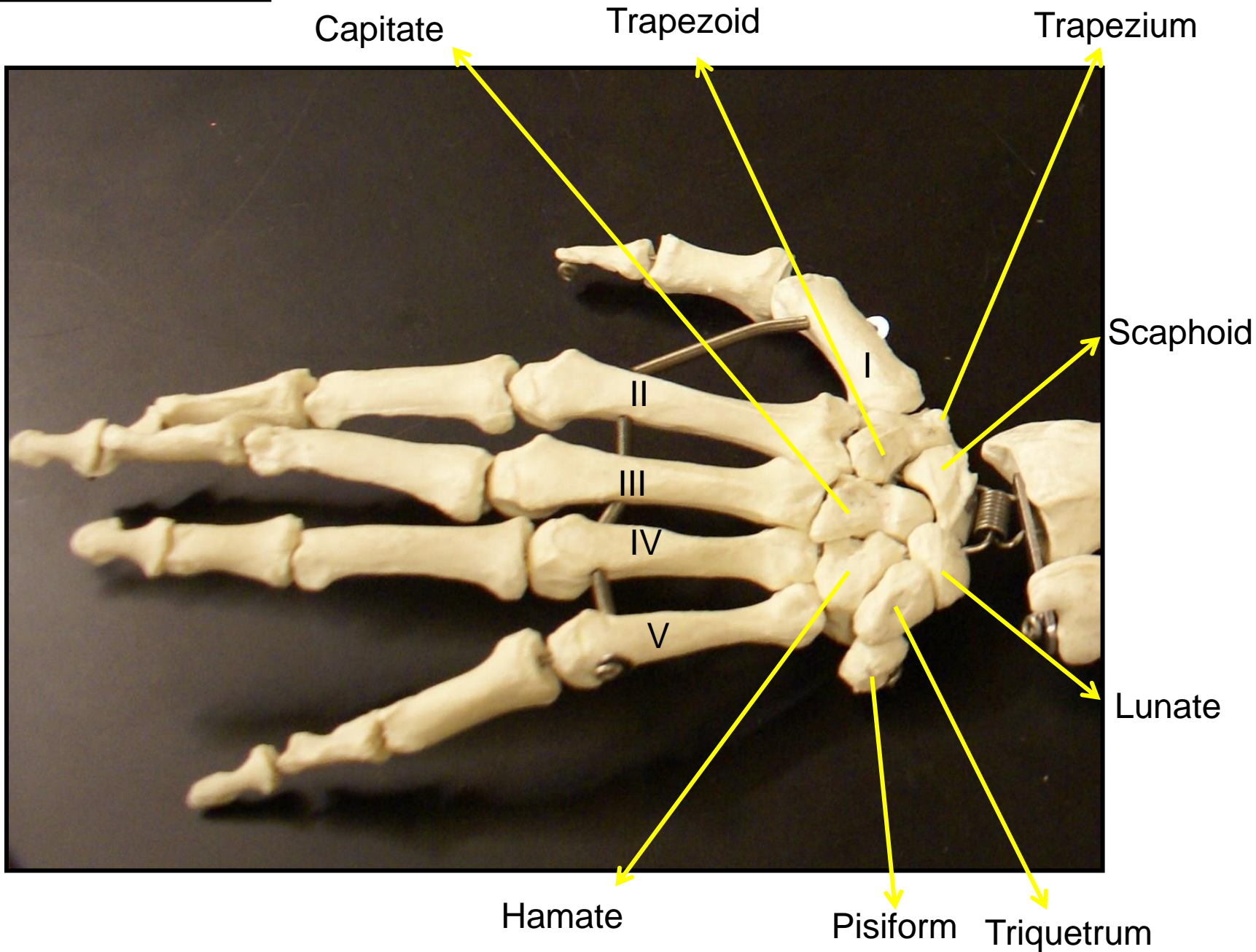
Diaphysis or shaft of Ulna

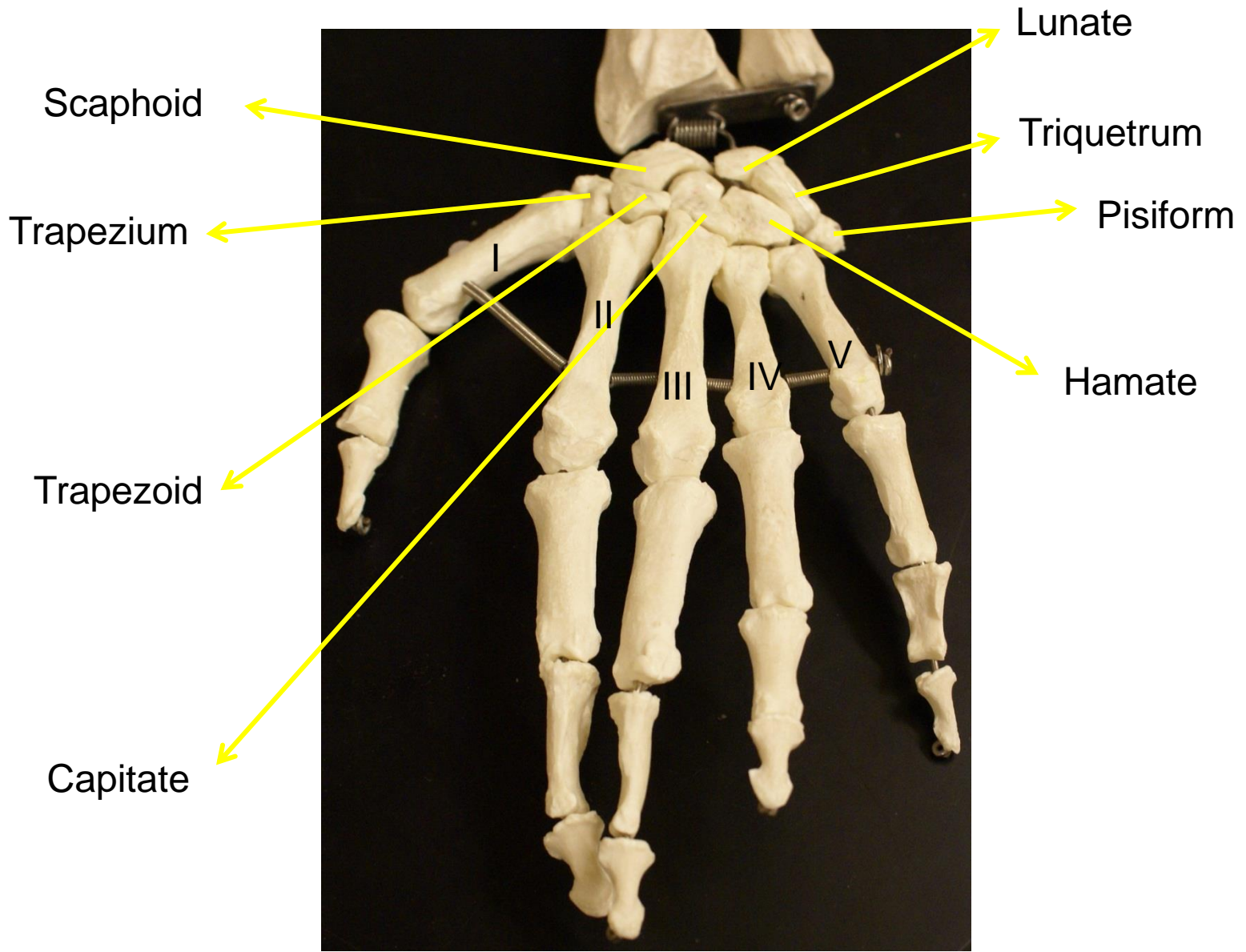
Ulnar styloid process



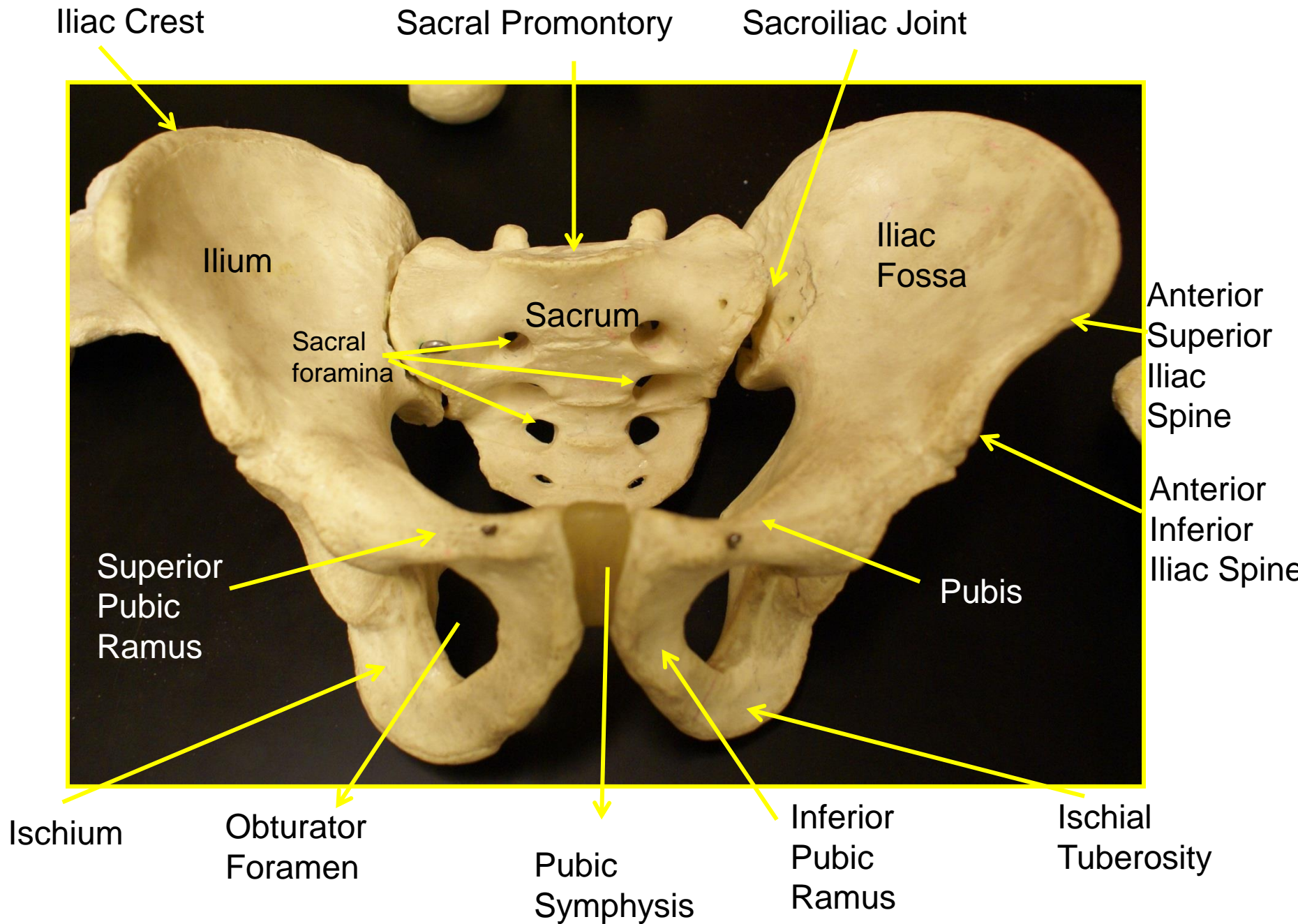


****Pronated View****

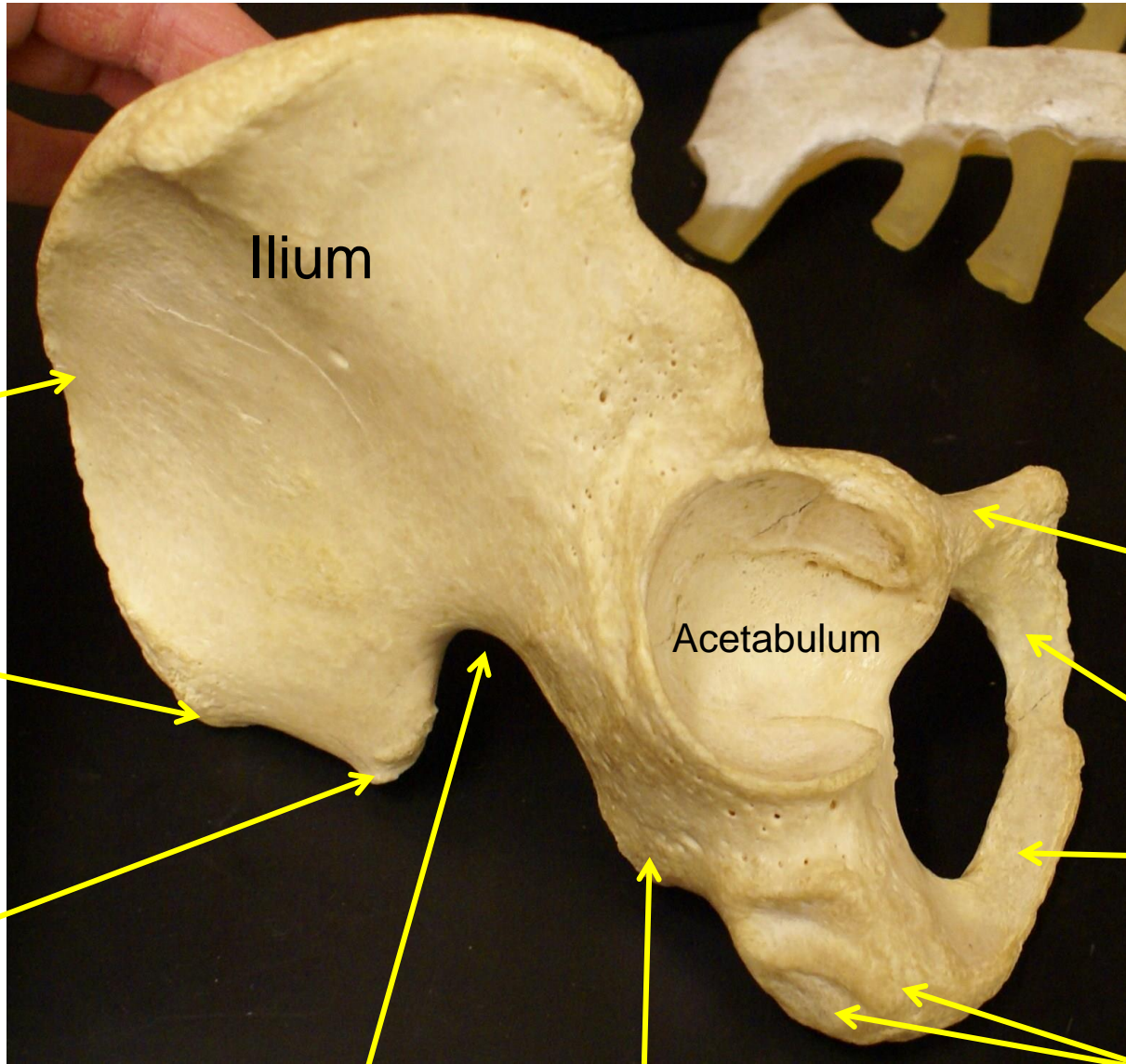




****Pronated View****



Os
Coxae
Lateral
View



Ilium

Iliac Crest

Posterior
Superior
Iliac Spine

Posterior
Inferior
Iliac Spine

Greater Sciatic Notch

Ischial Spine

Acetabulum

Superior
Pubic Ramus

Inferior
Pubic Ramus

Ischial
Ramus

Ischial
Tuberosity

Os
Coxae
Lateral
View

Iliac
Crest

Posterior
Superior
Iliac
Spine

Posterior
Inferior
Iliac Spine

Ischial Spine

Greater
Sciatic
Notch

Lesser Sciatic Notch

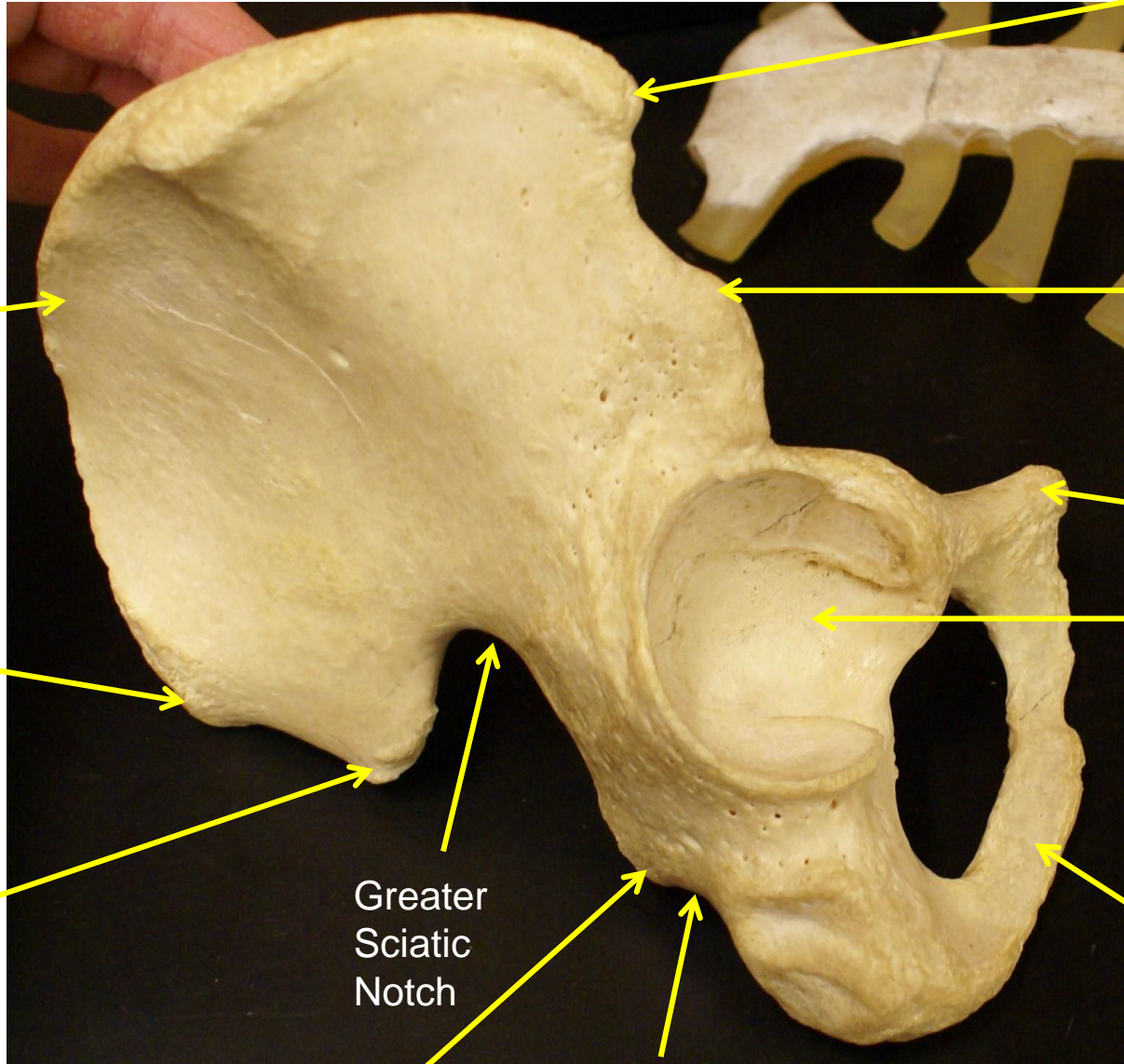
Anterior
Superior
Iliac Spine

Anterior
Inferior
Iliac Spine

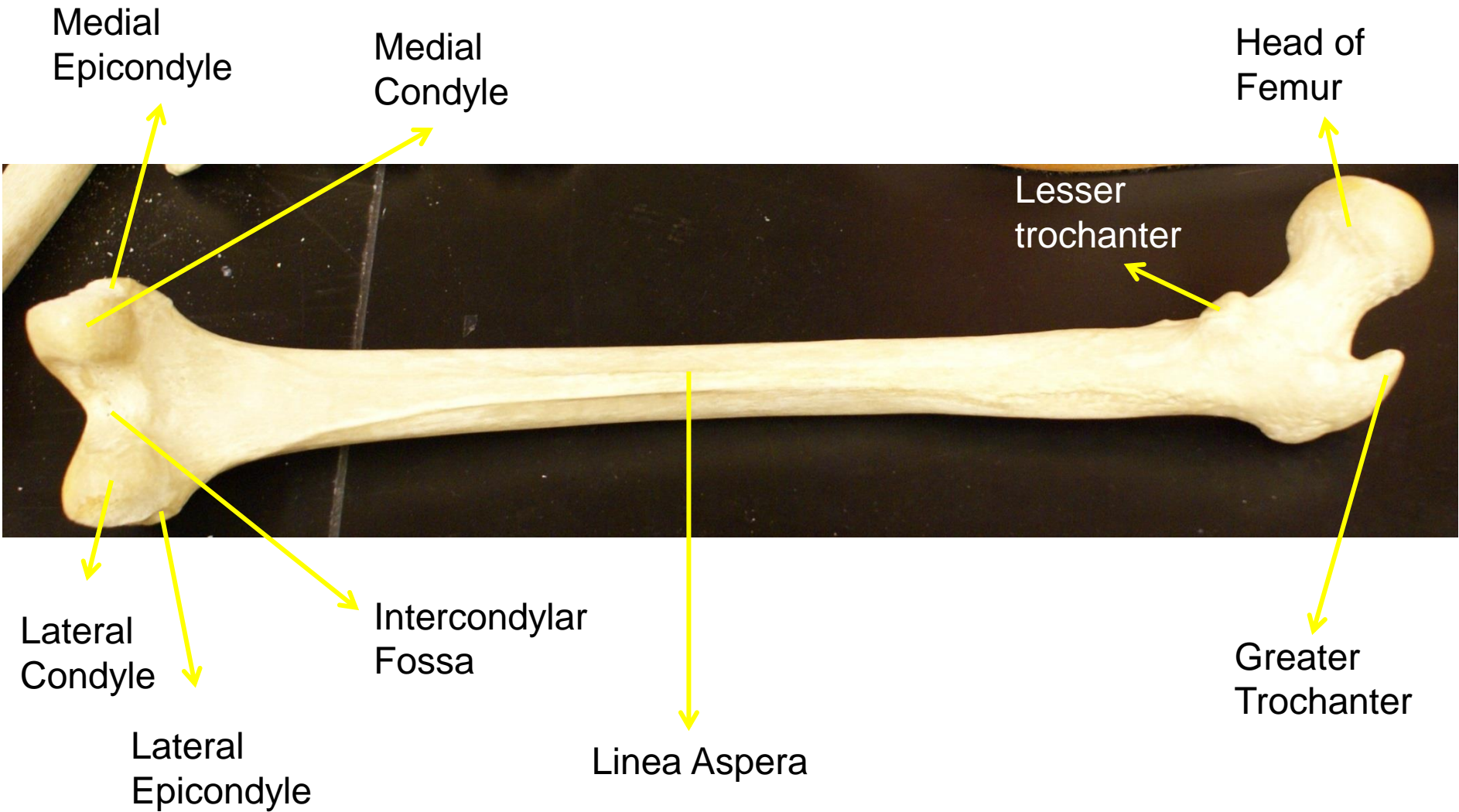
Pubic
Tubercle

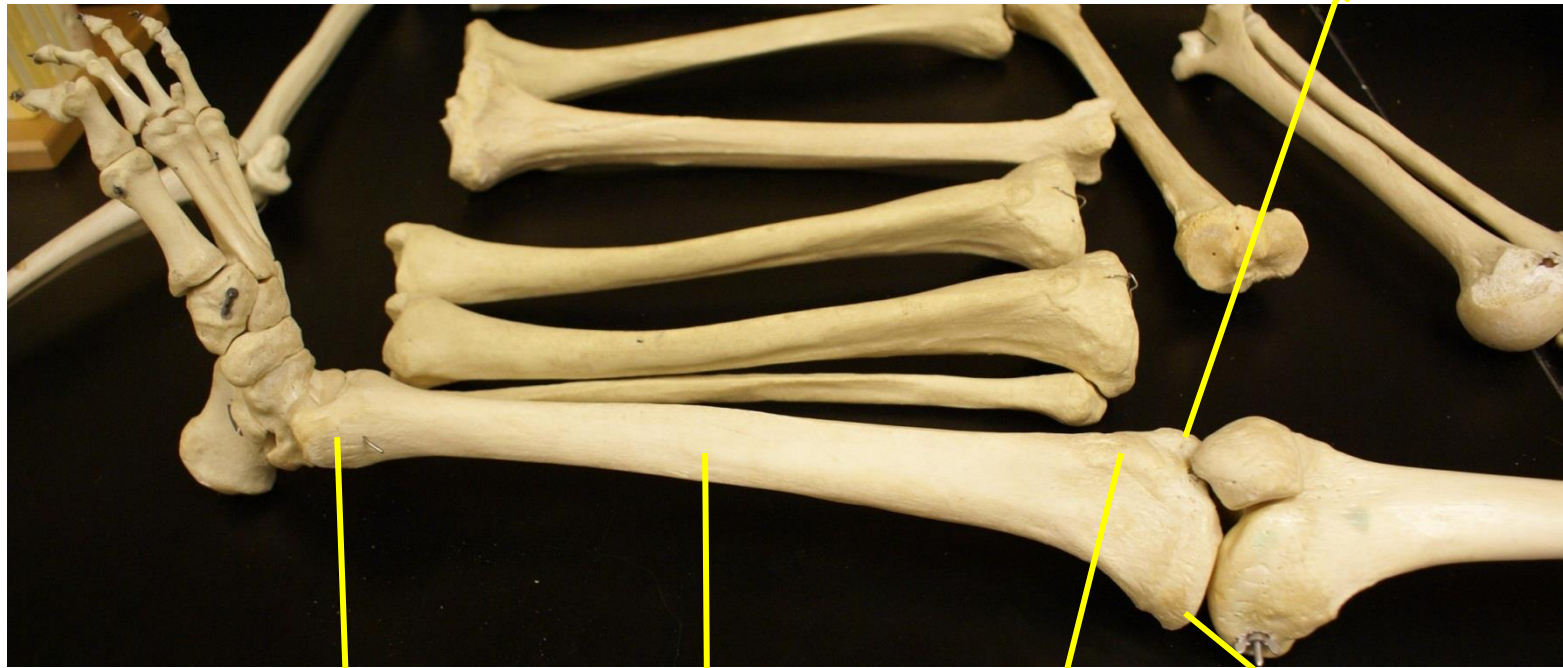
Acetabulum

Ischial
Ramus



Femur





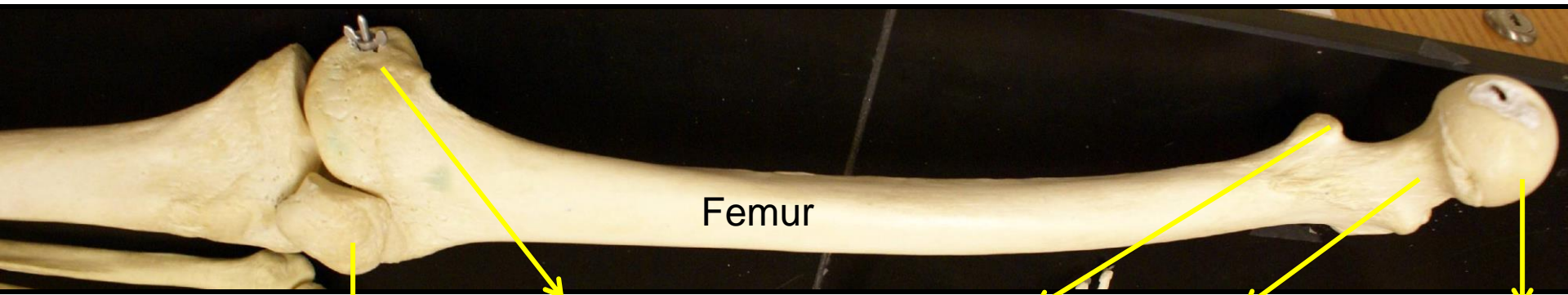
Lateral Tibial Condyle

Medial Malleolus

Tibia

Tibial Tuberosity

Medial Tibial Condyle



Femur

Patella

Medial Epicondyle

Lesser Trochanter

Neck

Head



Head of femur

Greater trochanter

Lesser trochanter

Femur

Linea aspera



Femur, Tibia and Fibula

Lateral
Epicondyle
of Femur

Femur
distal end

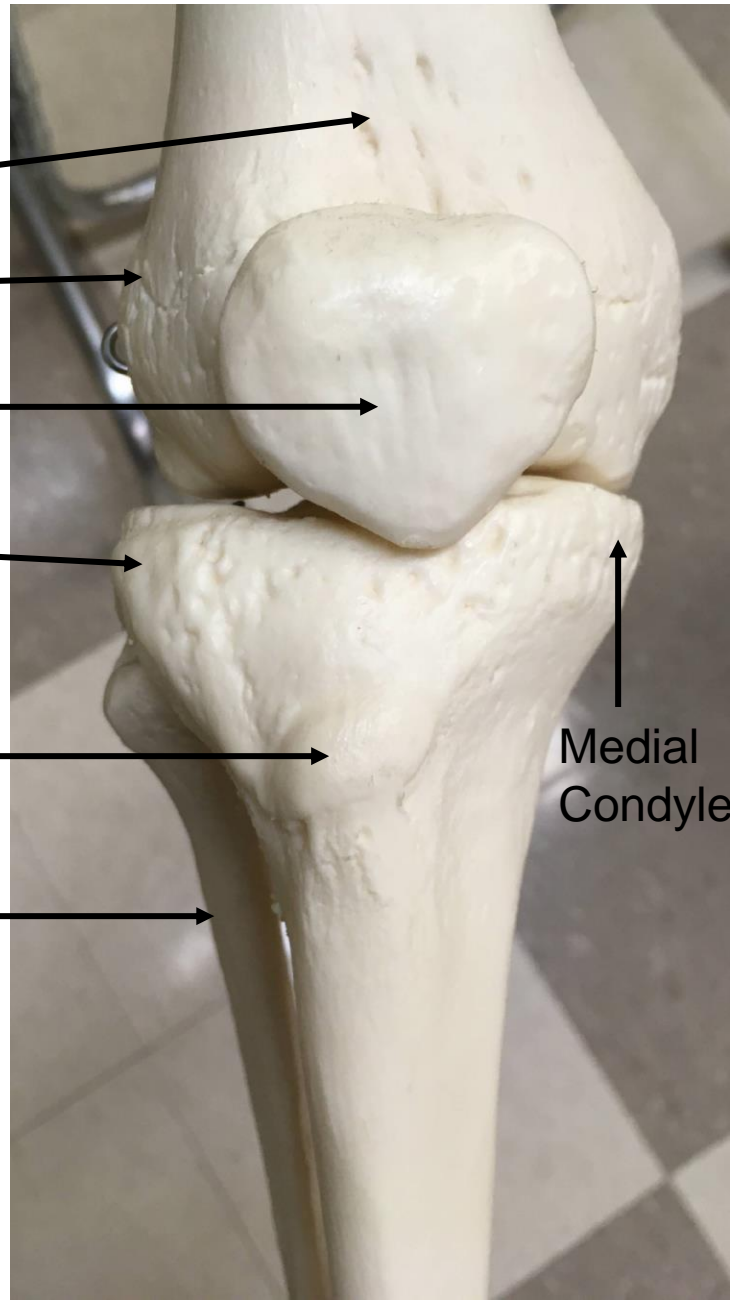
Patella

Lateral Tibial
Condyle

Tibial tuberosity

Fibula

Medial
Condyle



Tibia and Fibula

Tibial tuberosity

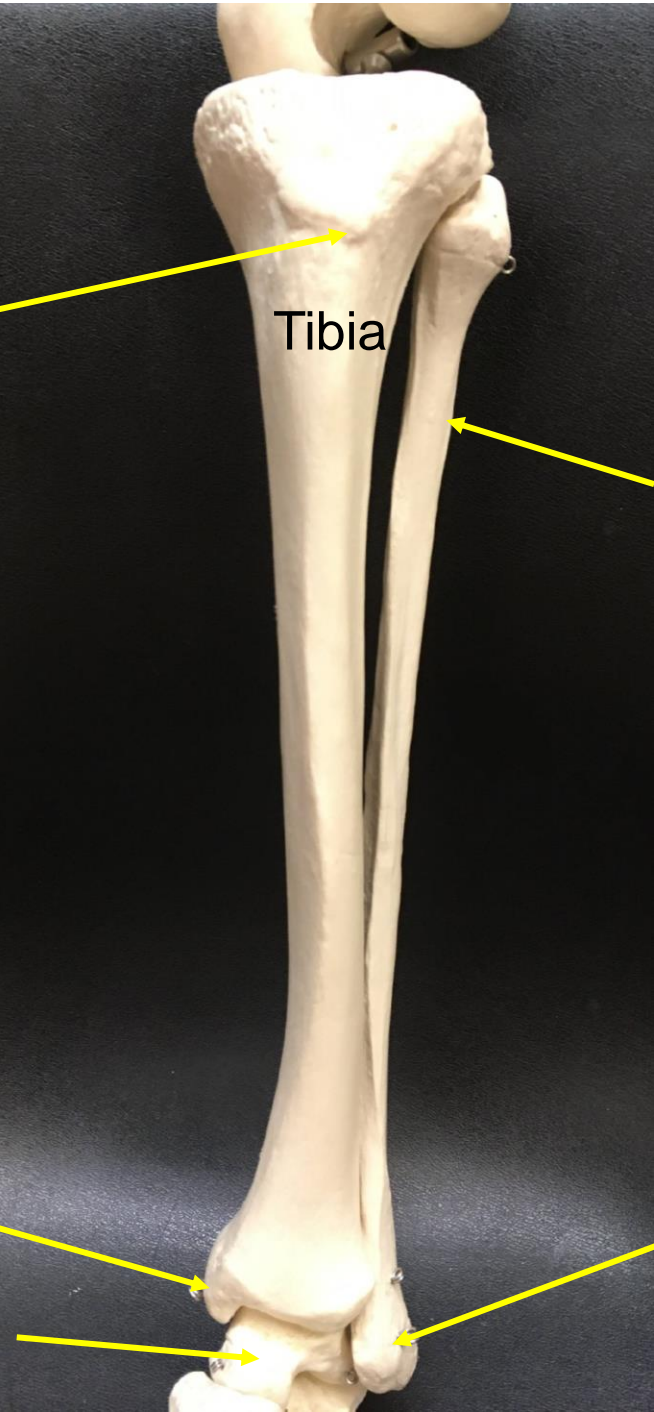
Tibia

Fibula

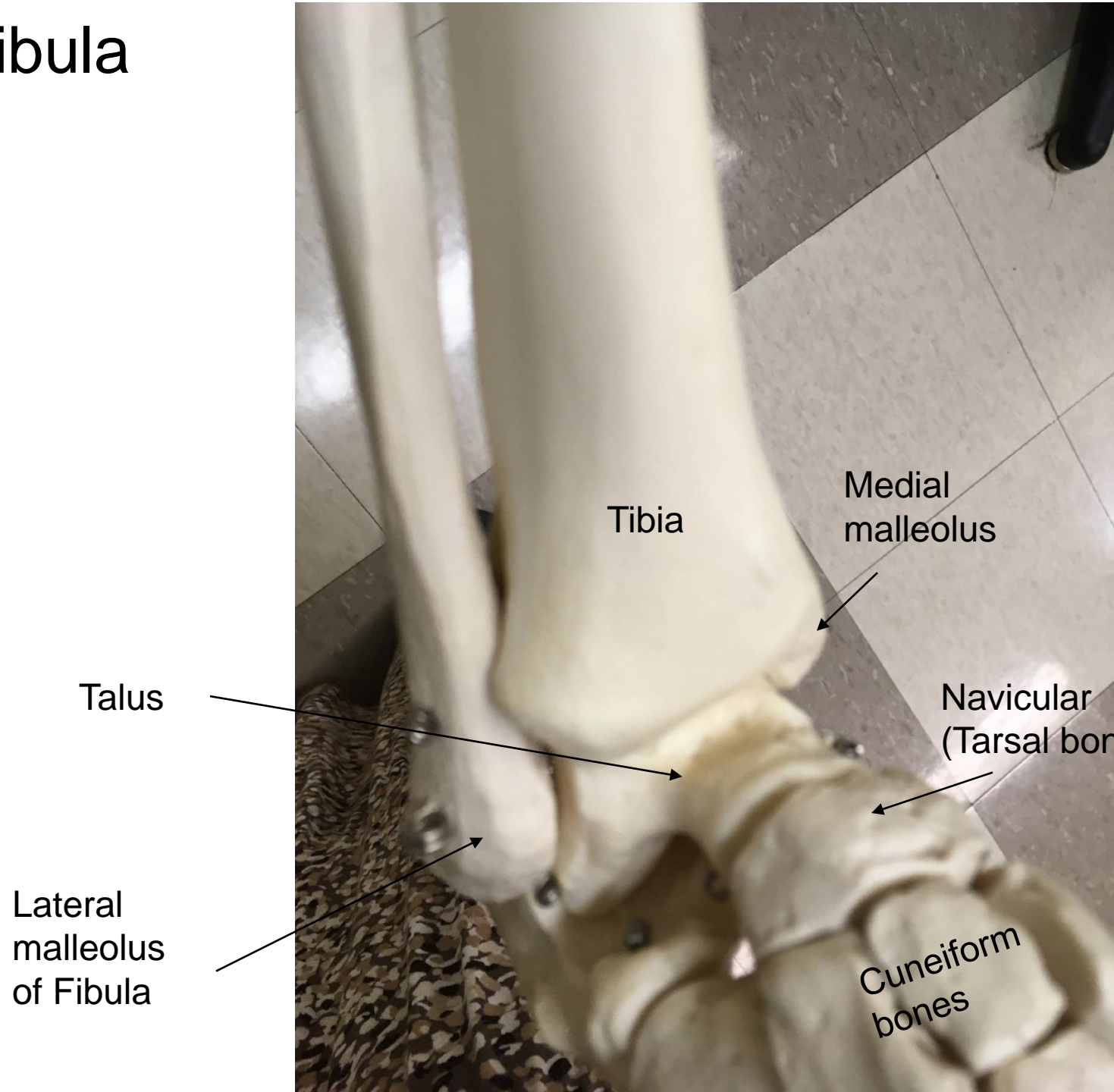
Medial malleolus

Lateral malleolus

Talus



Tibia and Fibula Distal End



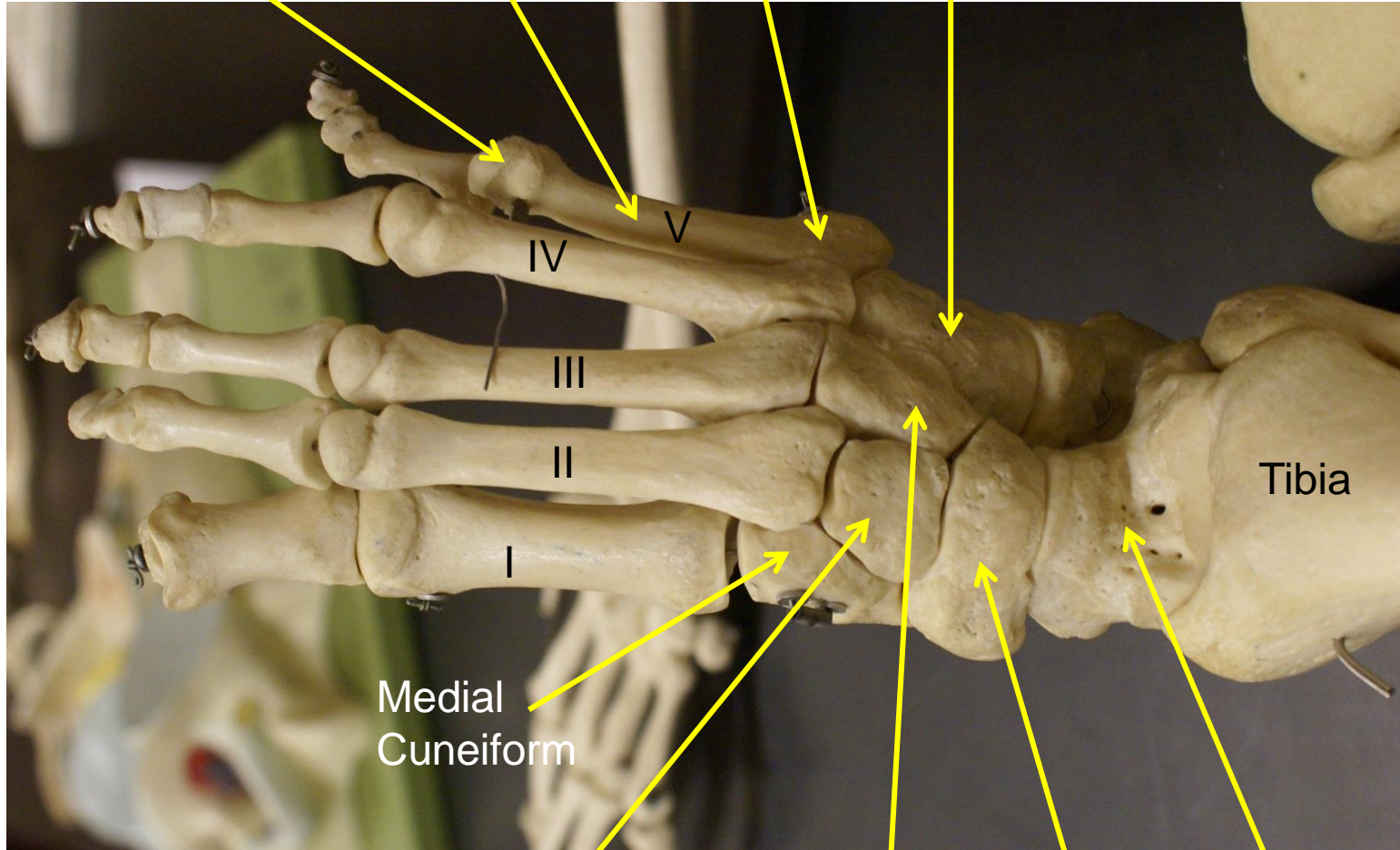
Superior View

Head of metatarsal

Shaft of metatarsal

Base of metatarsal

Cuboid



IV

V

III

II

I

Tibia

Medial Cuneiform

Intermediate Cuneiform

Lateral Cuneiform

Navicular bone

Talus

Head of Metatarsal Bone

Shaft of Metatarsal Bone

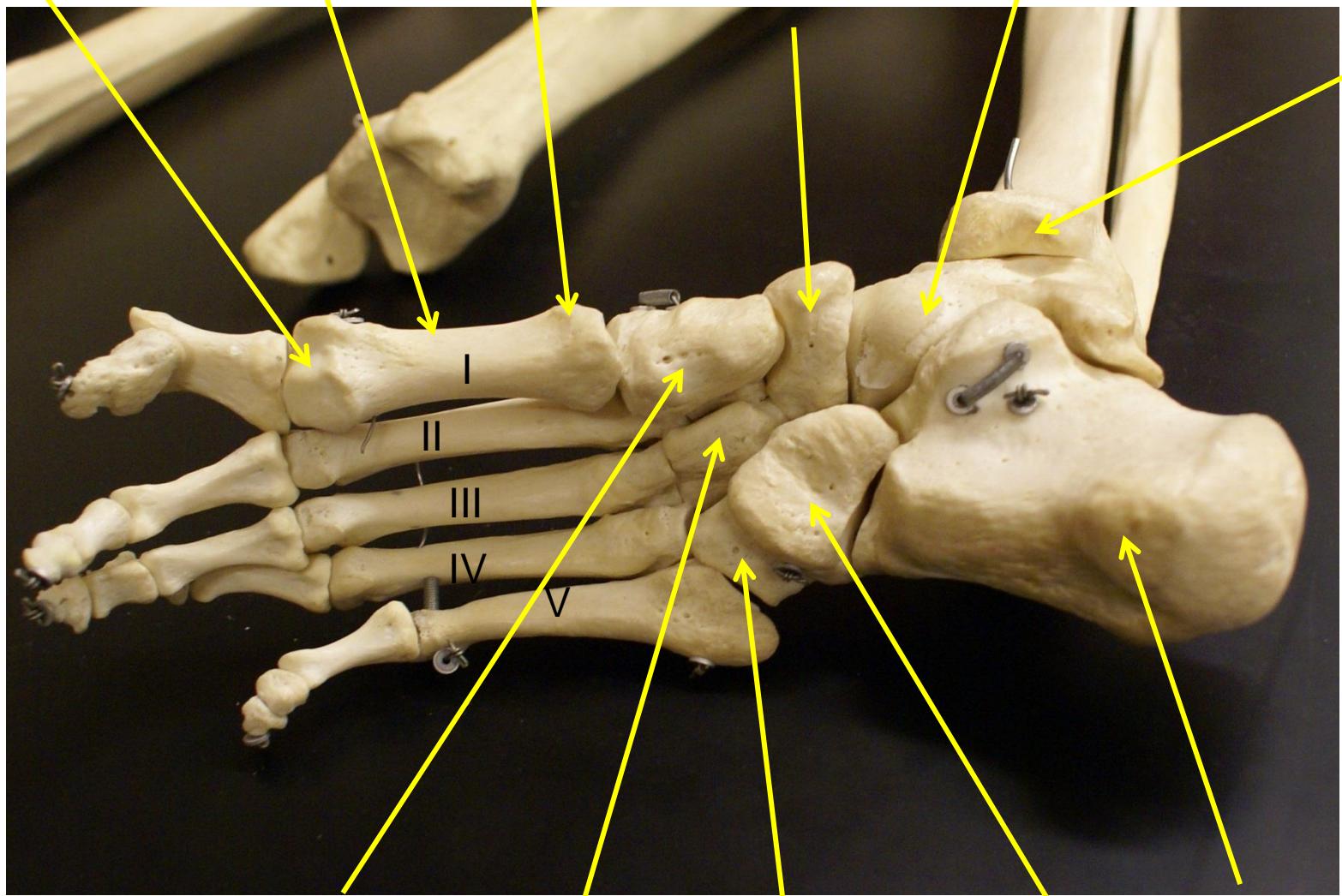
Base of Metatarsal Bone

Navicular Bone

Talus

Plantar View

Medial Malleolus



Medial Cuneiform

Intermediate Cuneiform

Lateral Cuneiform

Cuboid

Calcaneus