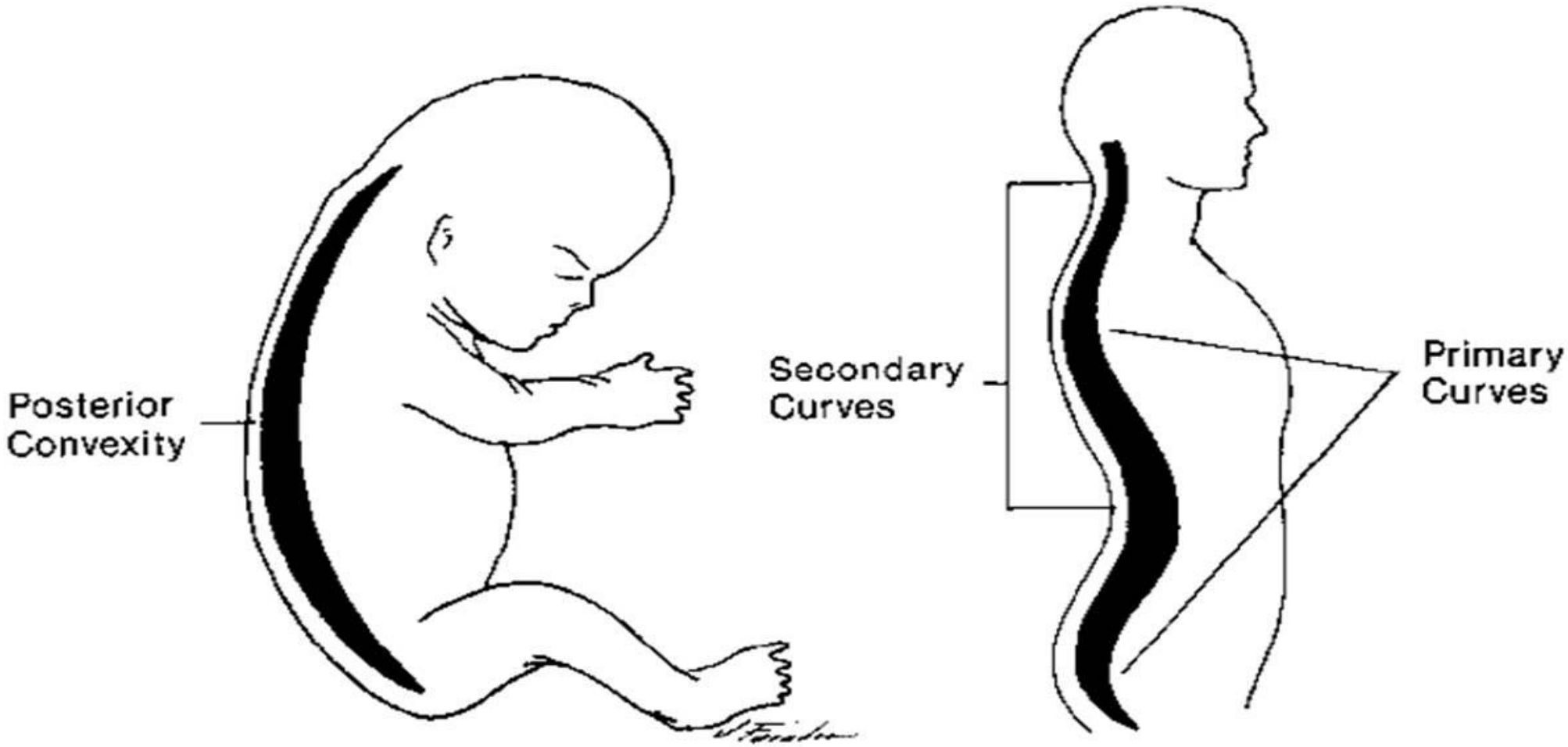
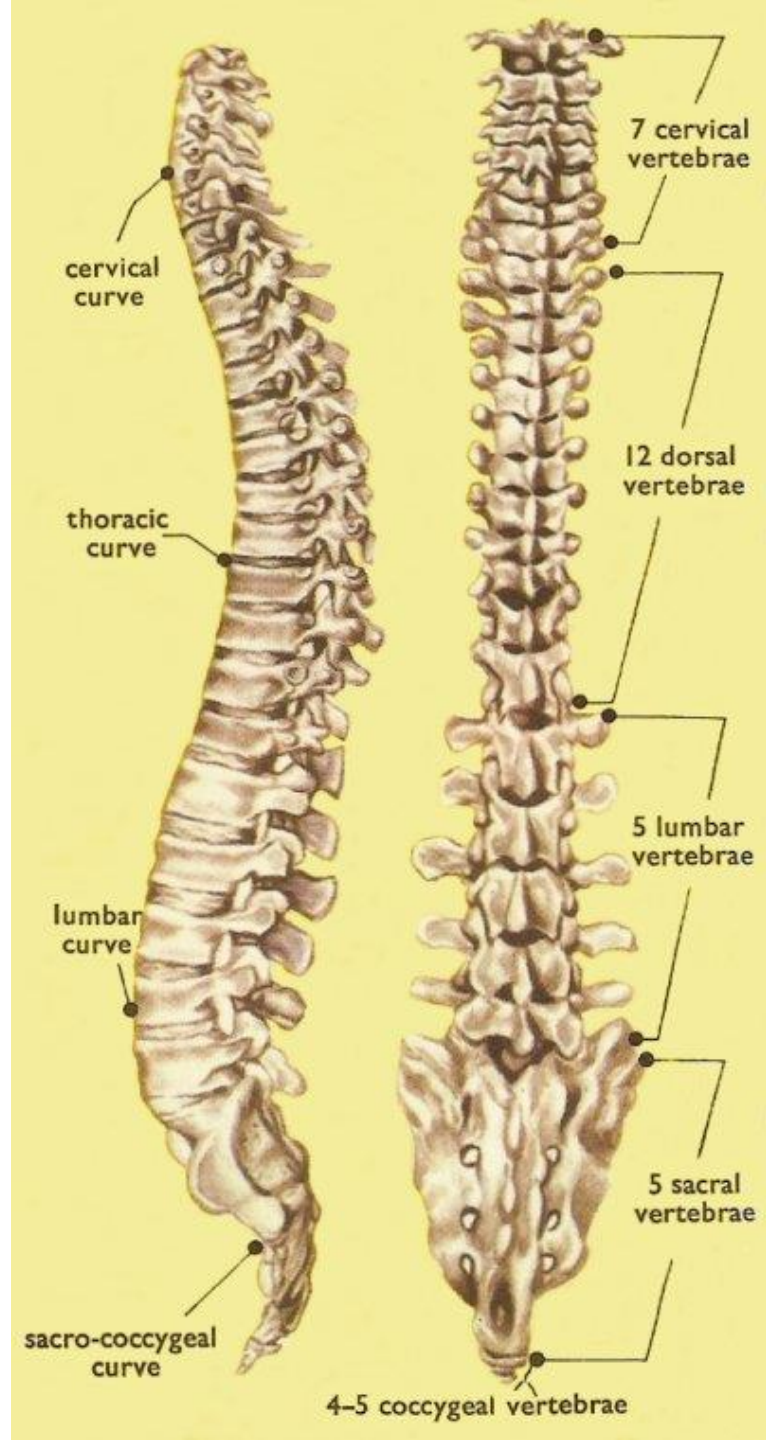
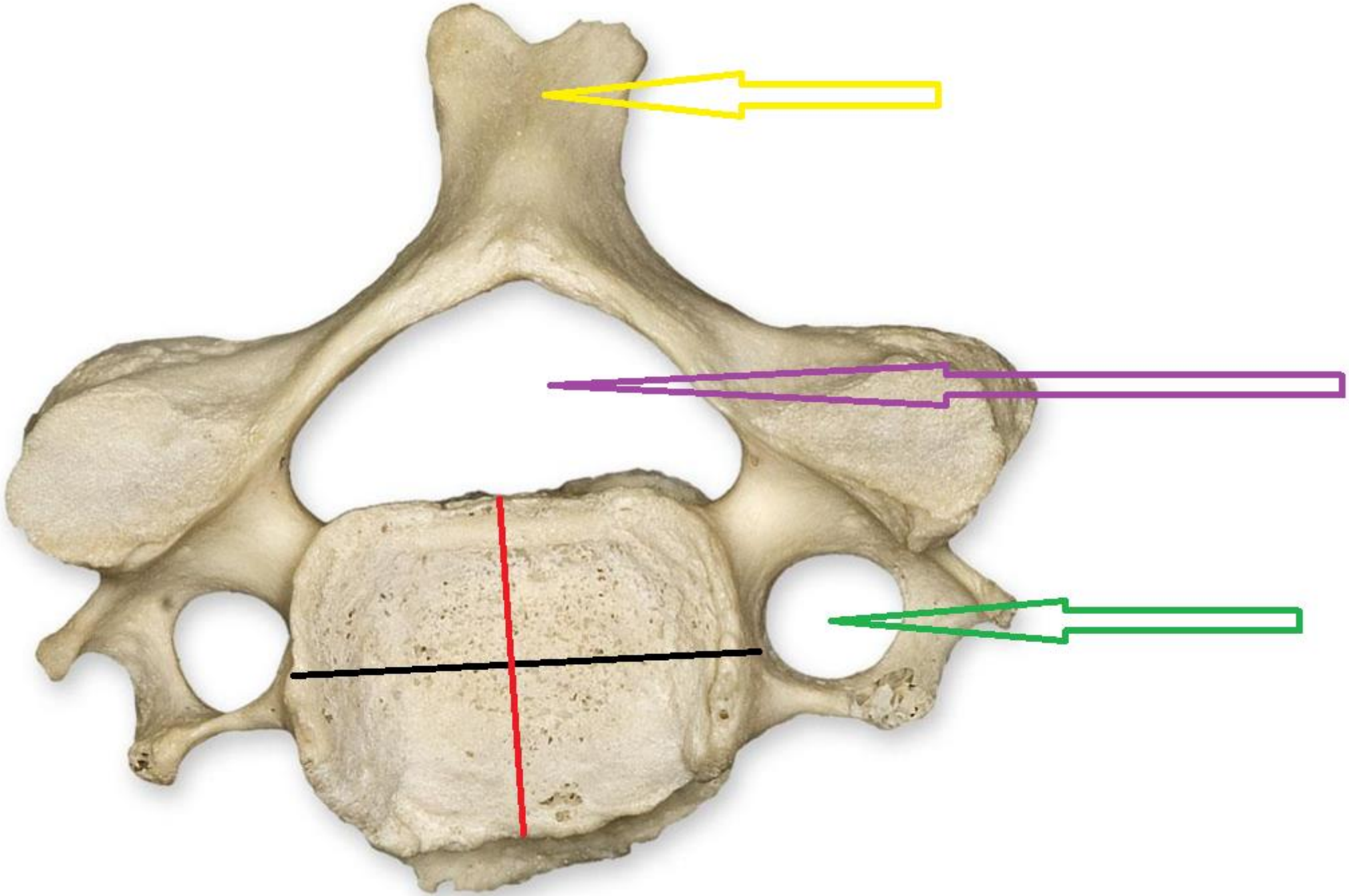
Cervical vertebrae

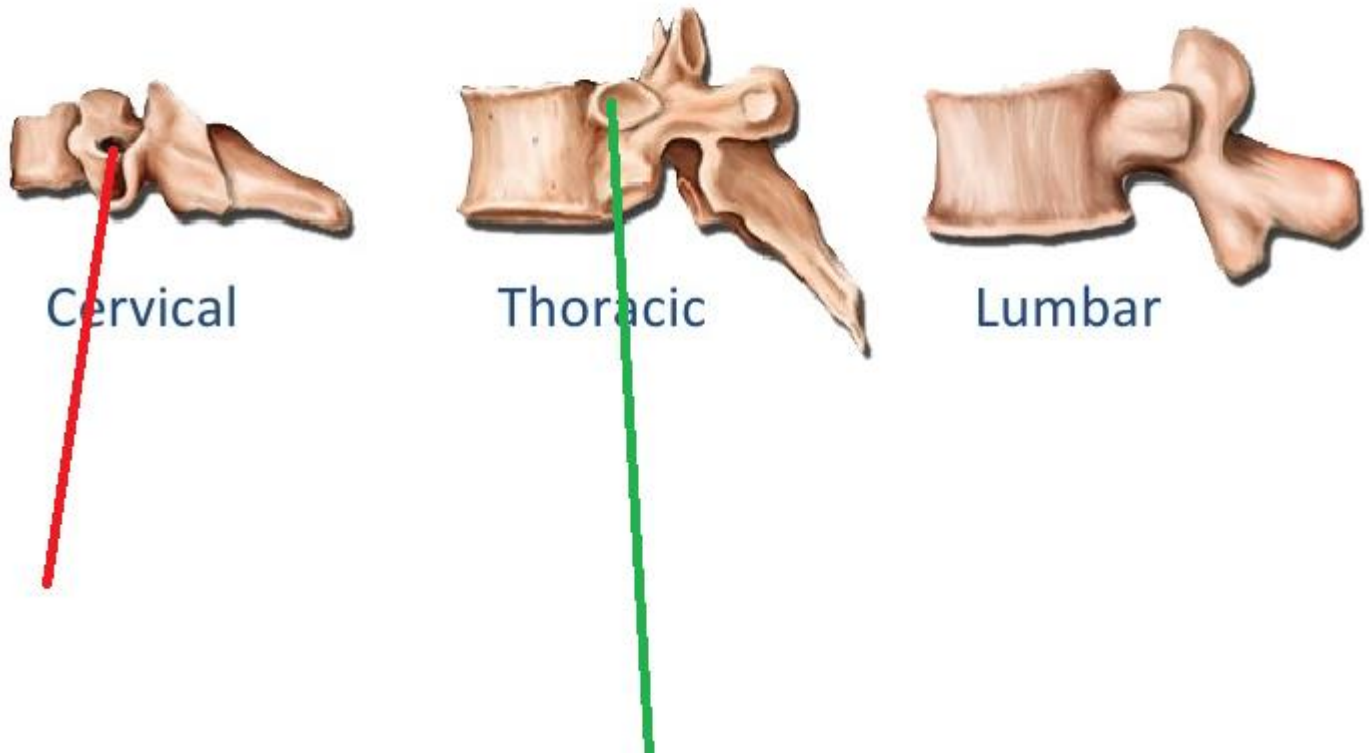
- What is the secondary curvature of cervical spine
- Which are the typical cervical vertebrae..C3 4 5 6
- What are their features
- What is pleurapophysis or costal element
- What is diapophysis or true transverse process
- What factor differentiates a cervical vertebra from a thoracic or a lumbar vertebra
- What passes through the foramen transversarium
- Name muscles attached to the anterior and posterior tubercles

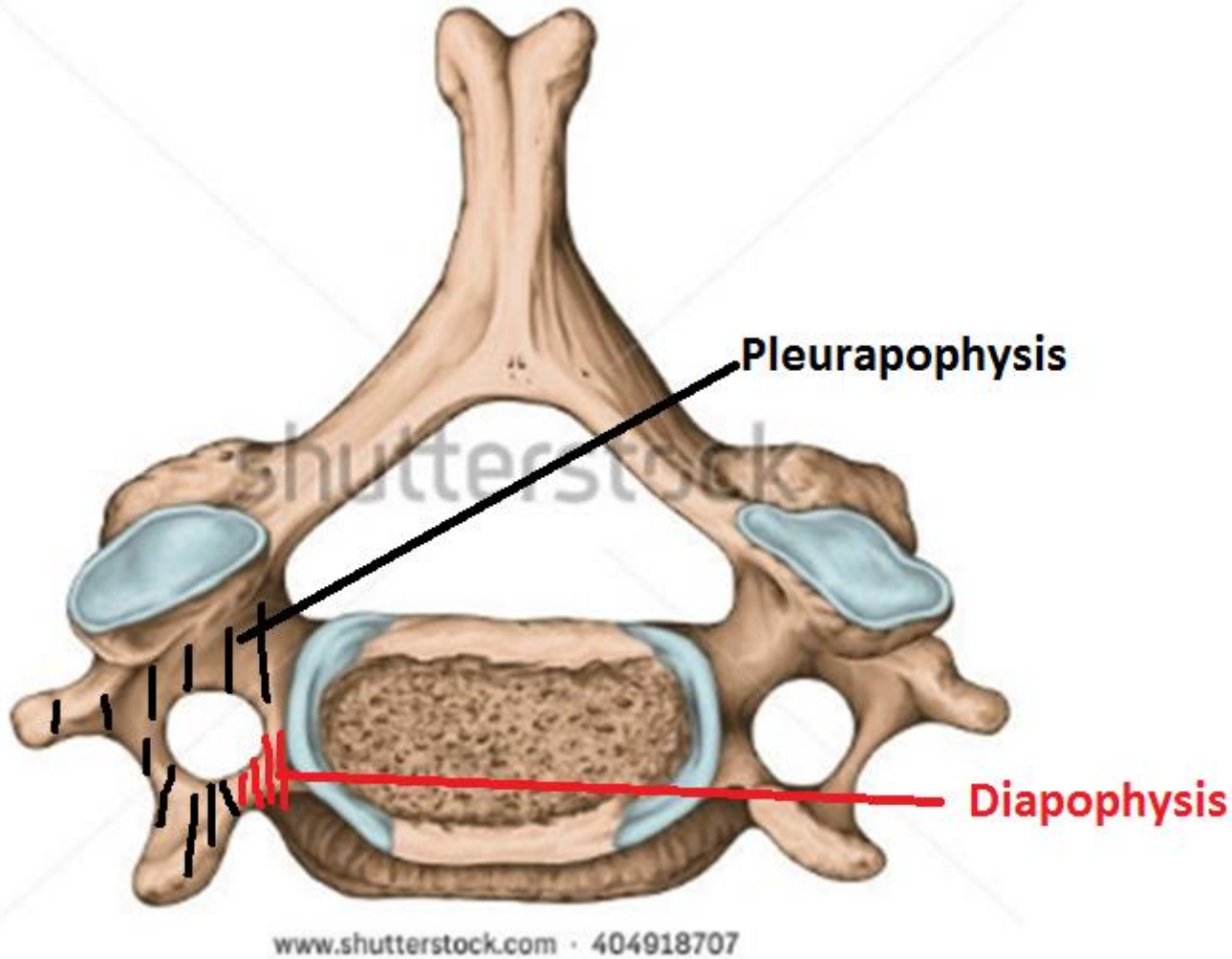

Posterior
Convexity
Secondary
Curves
Primary
Curves

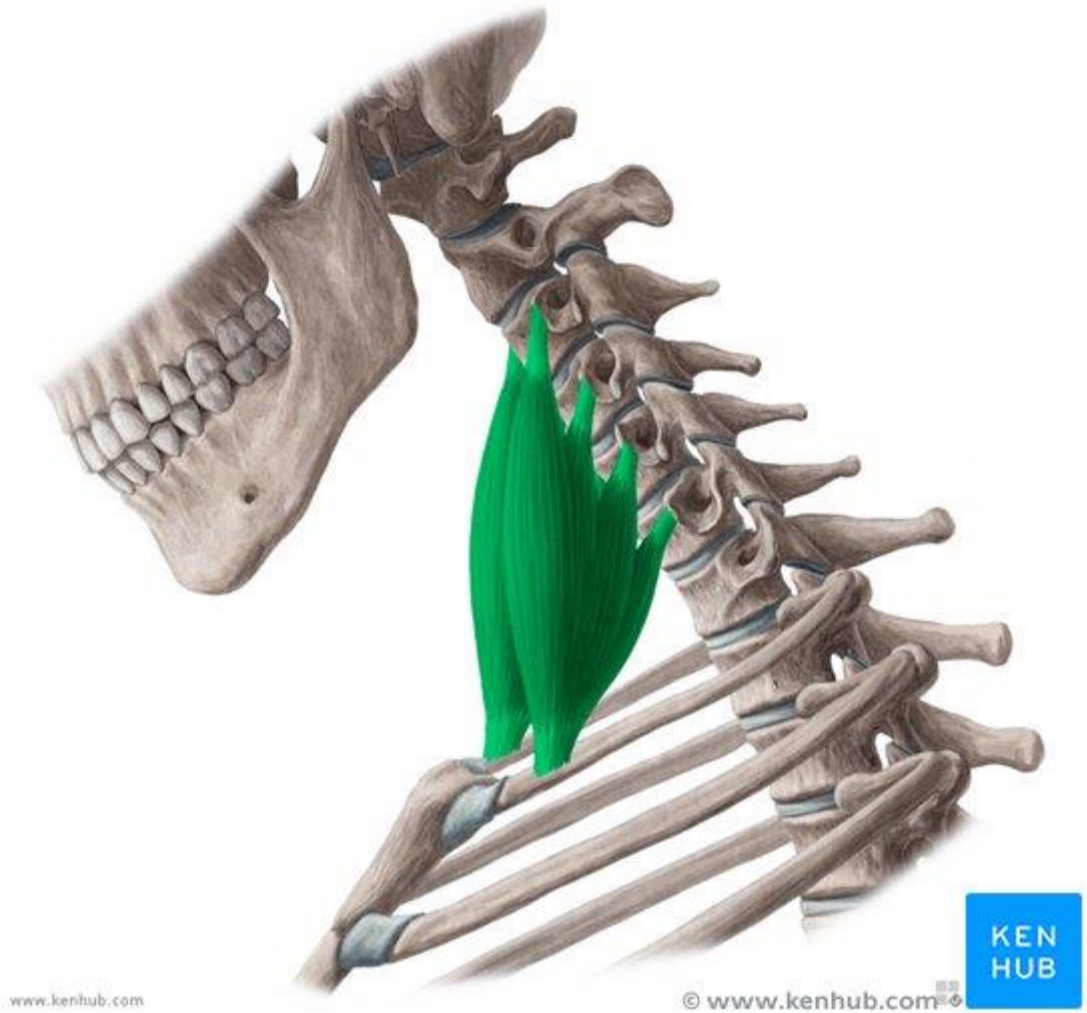

cervical curve
thoracic curve
lumbar curve
sacro-coccygeal curve
7 cervical vertebrae
12 dorsal vertebrae
5 lumbar vertebrae
5 sacral vertebrae
4–5 coccygeal vertebrae

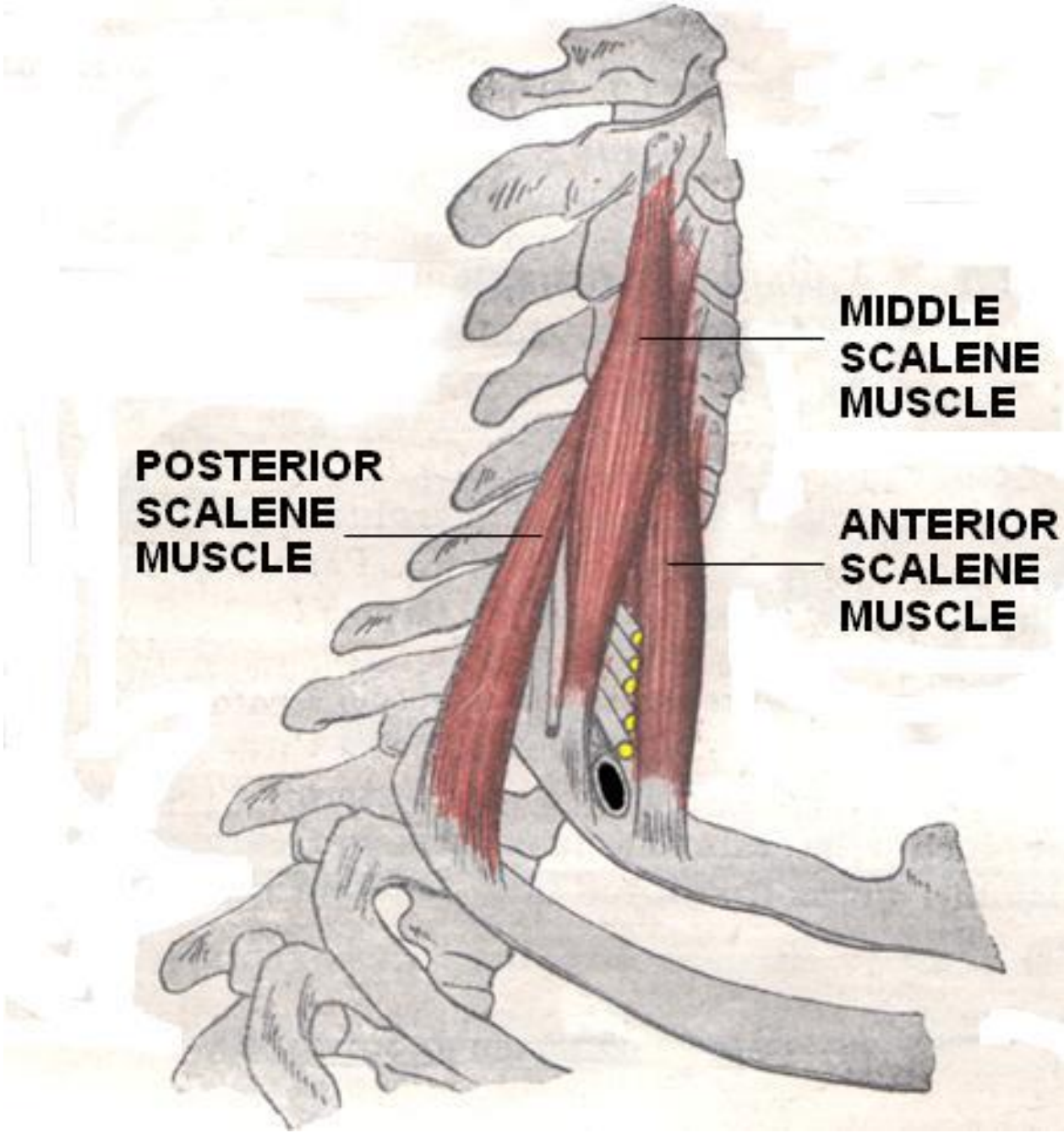


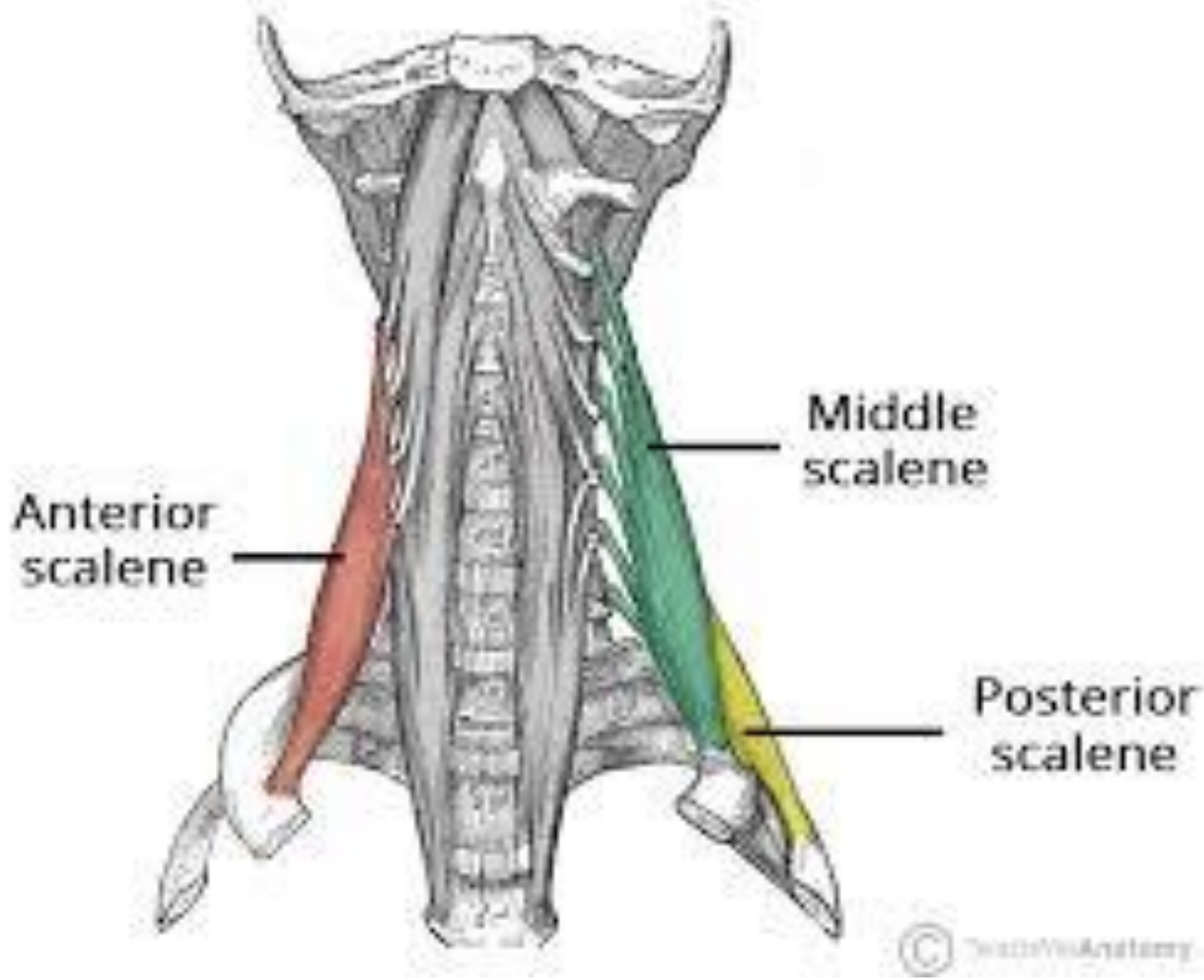
Basic Vertebral Structures

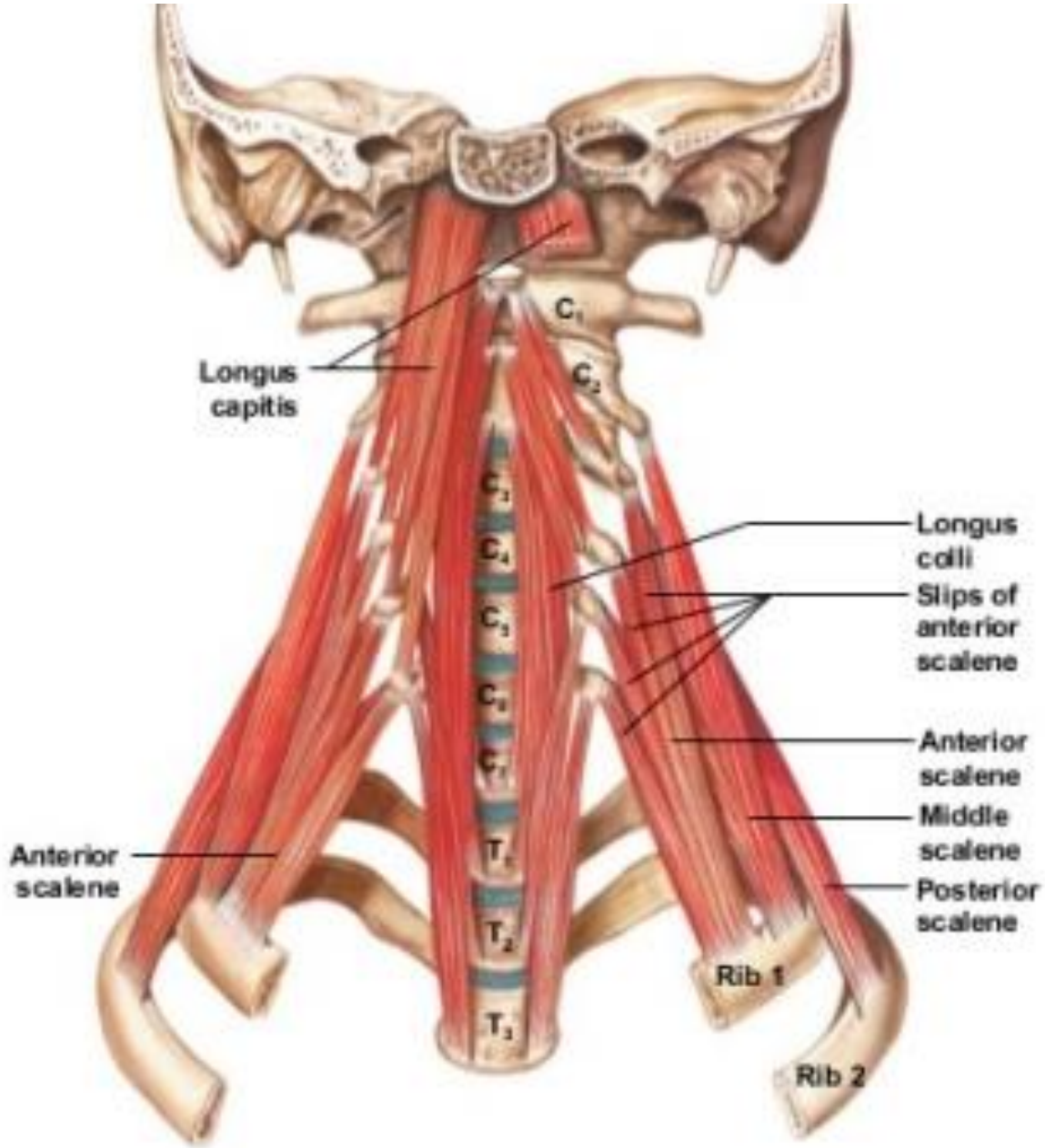


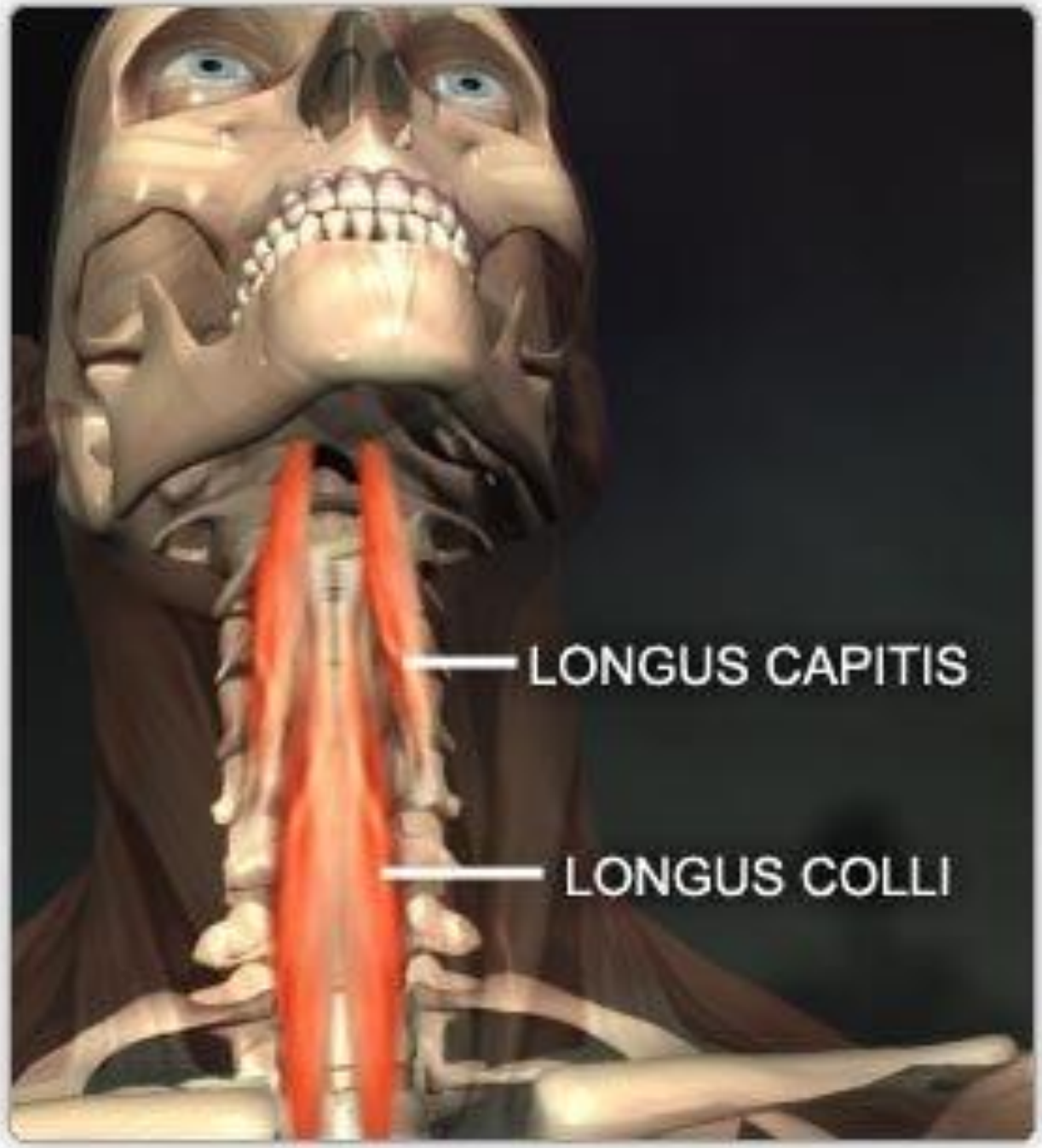

Pleurapophysis
Diapophysis
shutterstock
www.shutterstock.com · 404918707

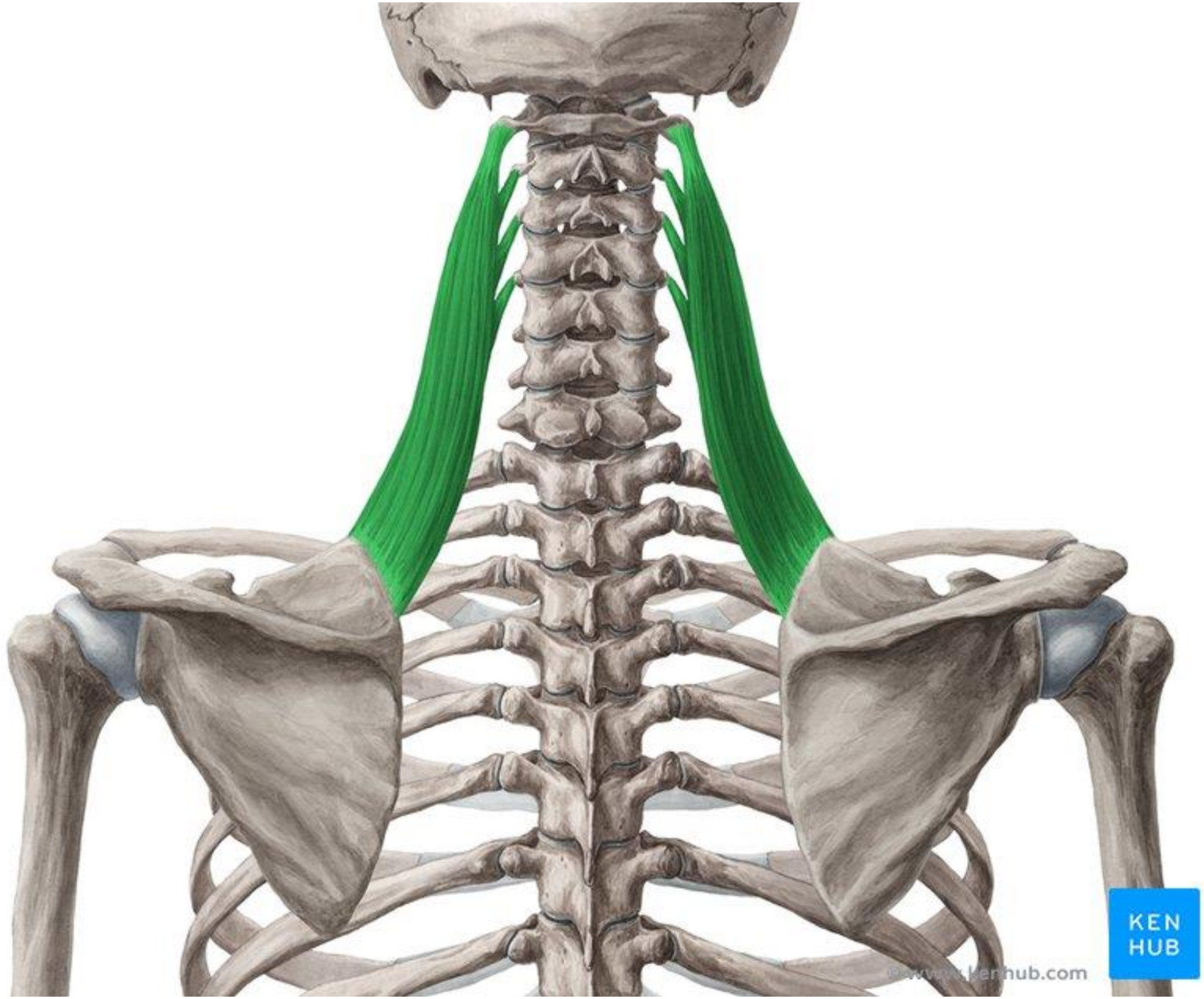


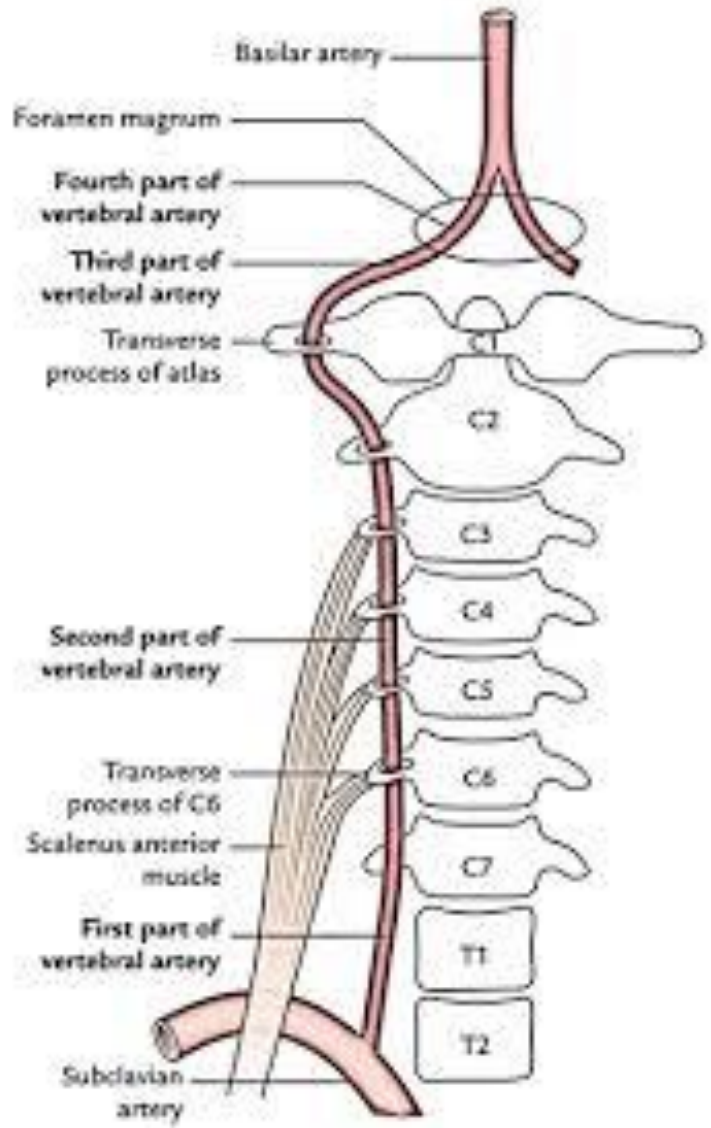

MIDDLE
SCALENE
MUSCLE
POSTERIOR
SCALENE
MUSCLE
ANTERIOR
SCALENE
MUSCLE


Middle scalene
Anterior scalene
Posterior scalene


Longus capitis
C1
C2
C4
C5
C6
C7
T1
T2
T3
Longus colli
Slips of anterior scalene
Anterior scalene
Middle scalene
Posterior scalene
Anterior scalene
Rib 1
Rib 2

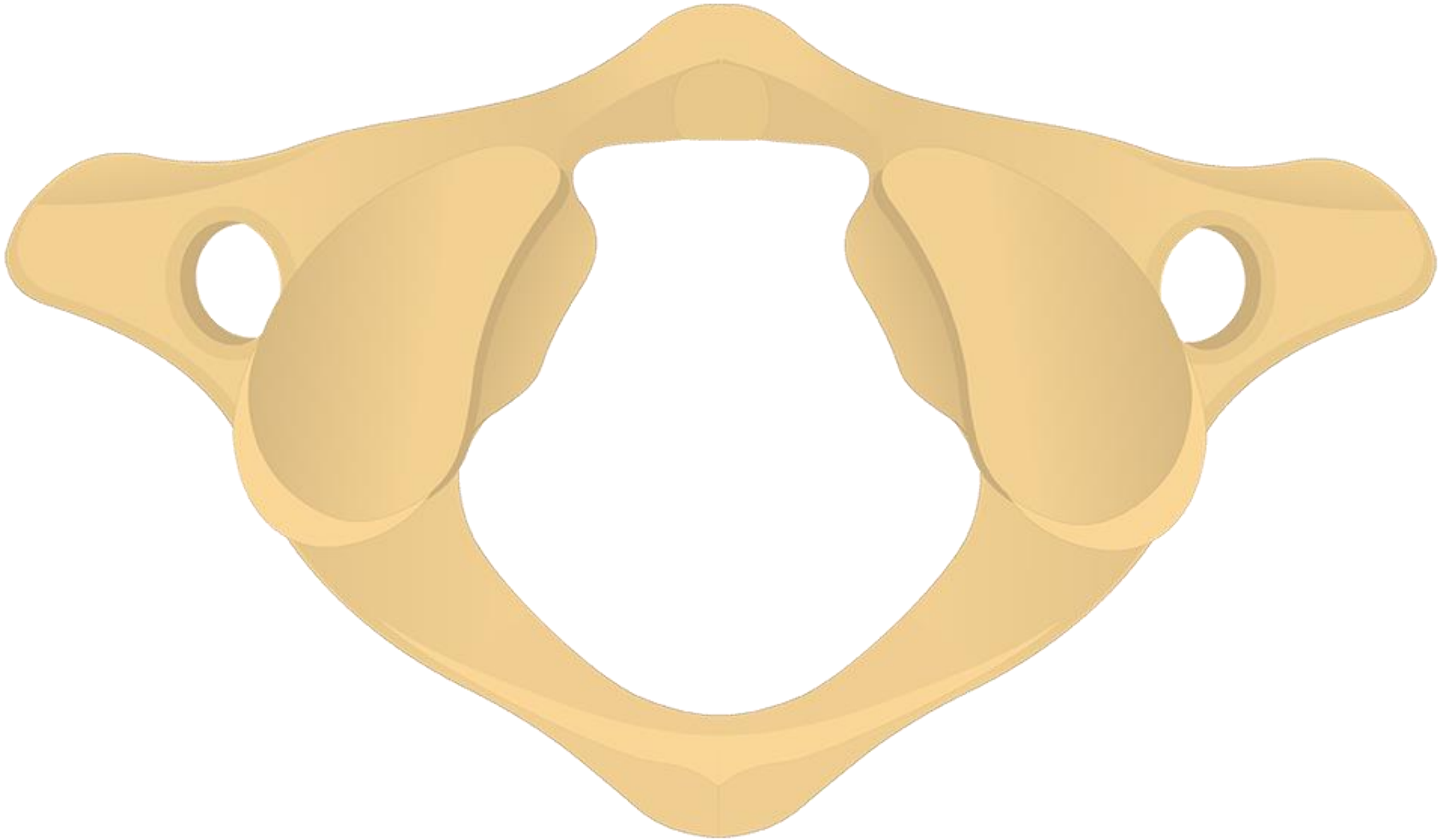

LONGUS CAPITIS
LONGUS COLLI

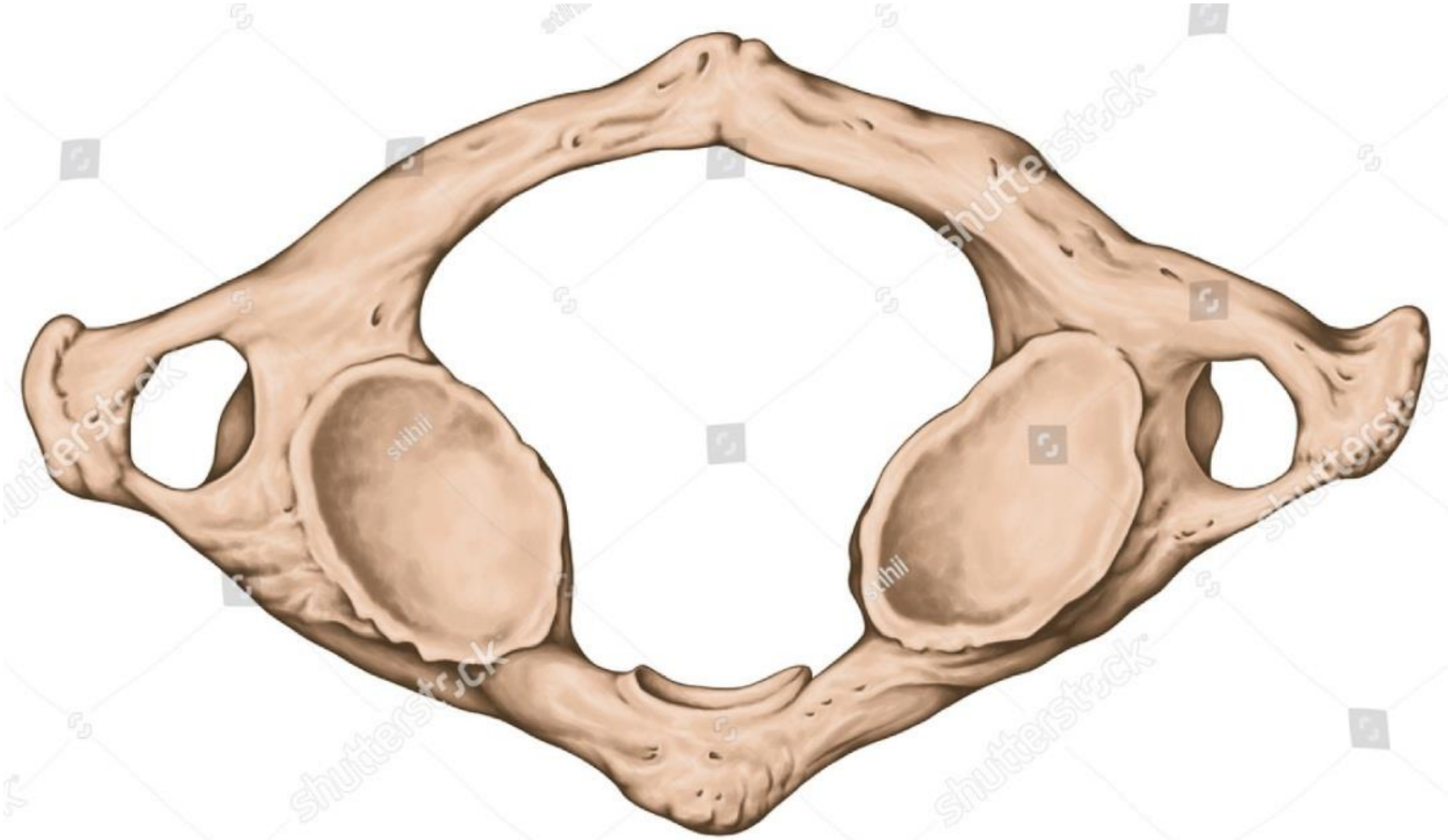

KEN
HUB

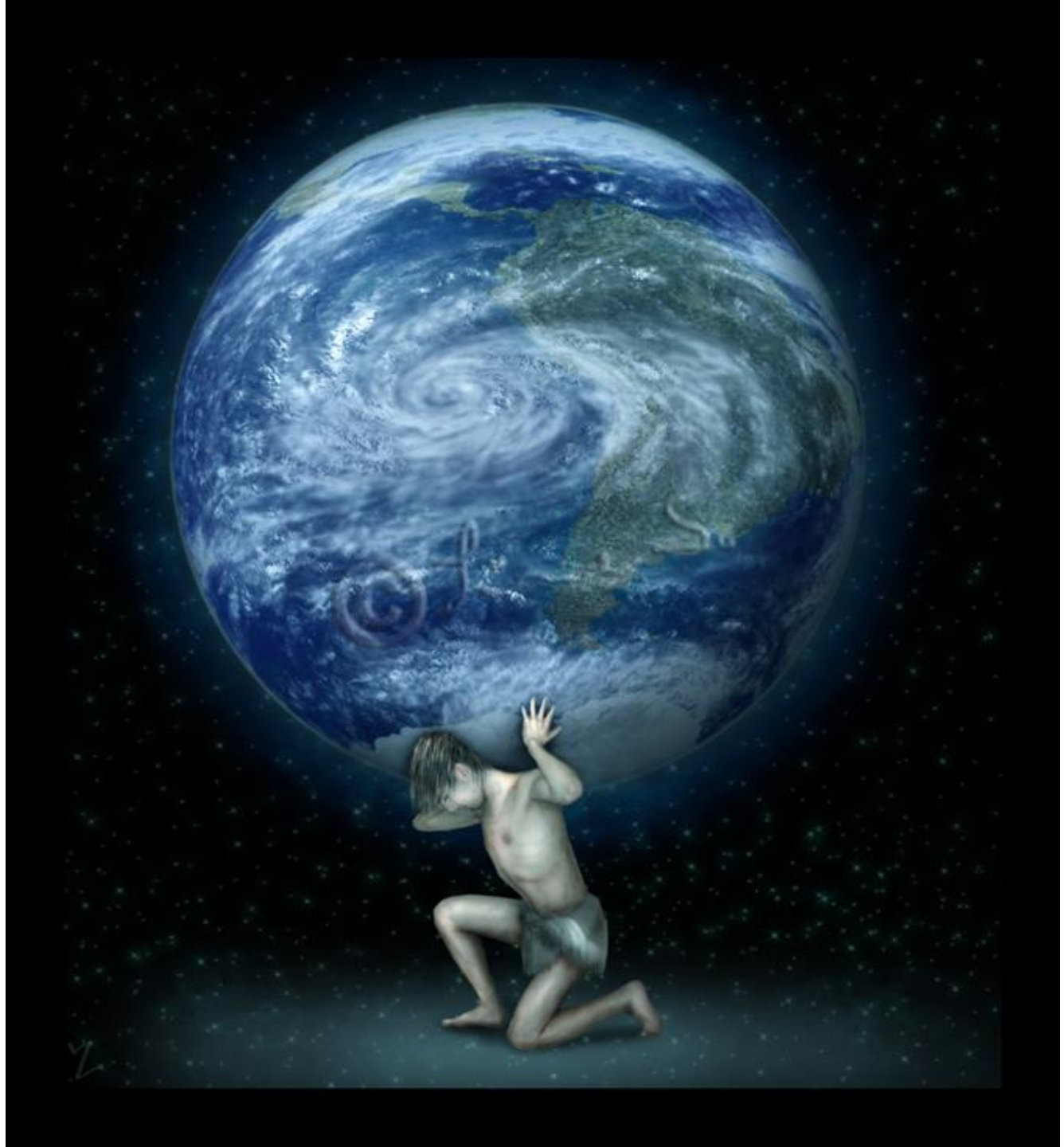

Basilar artery
Foramen magnum
Fourth part of vertebral artery
Third part of vertebral artery
Transverse process of atlas
C1
C2
C3
C4
Second part of vertebral artery
C5
Transverse process of C6
C6
Scalenus anterior muscle
C7
First part of vertebral artery
T1
T2
Subclavian artery

Atlas and Axis

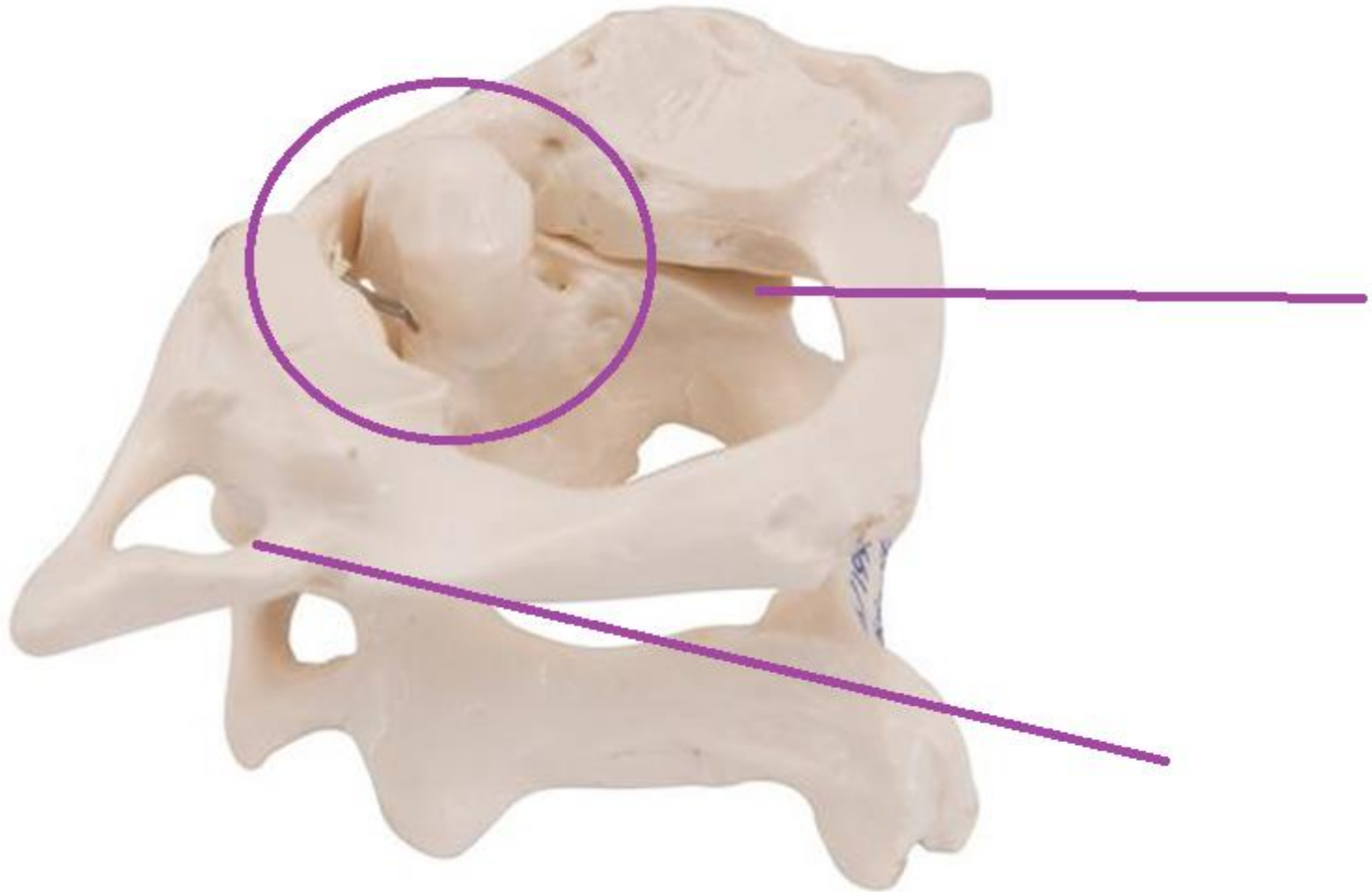
- Why is C1 atypical
- Why is C2 atypical
- Hold atlas in correct anatomical position (Anterior arch short, superior facets kidney shaped)
- Why is it called atlas (Holds the globe of the head like Greek God)
- Articulate it with the axis. Show movements
- Why is axis called so (Because it provides the axis around which the atlas rotates)





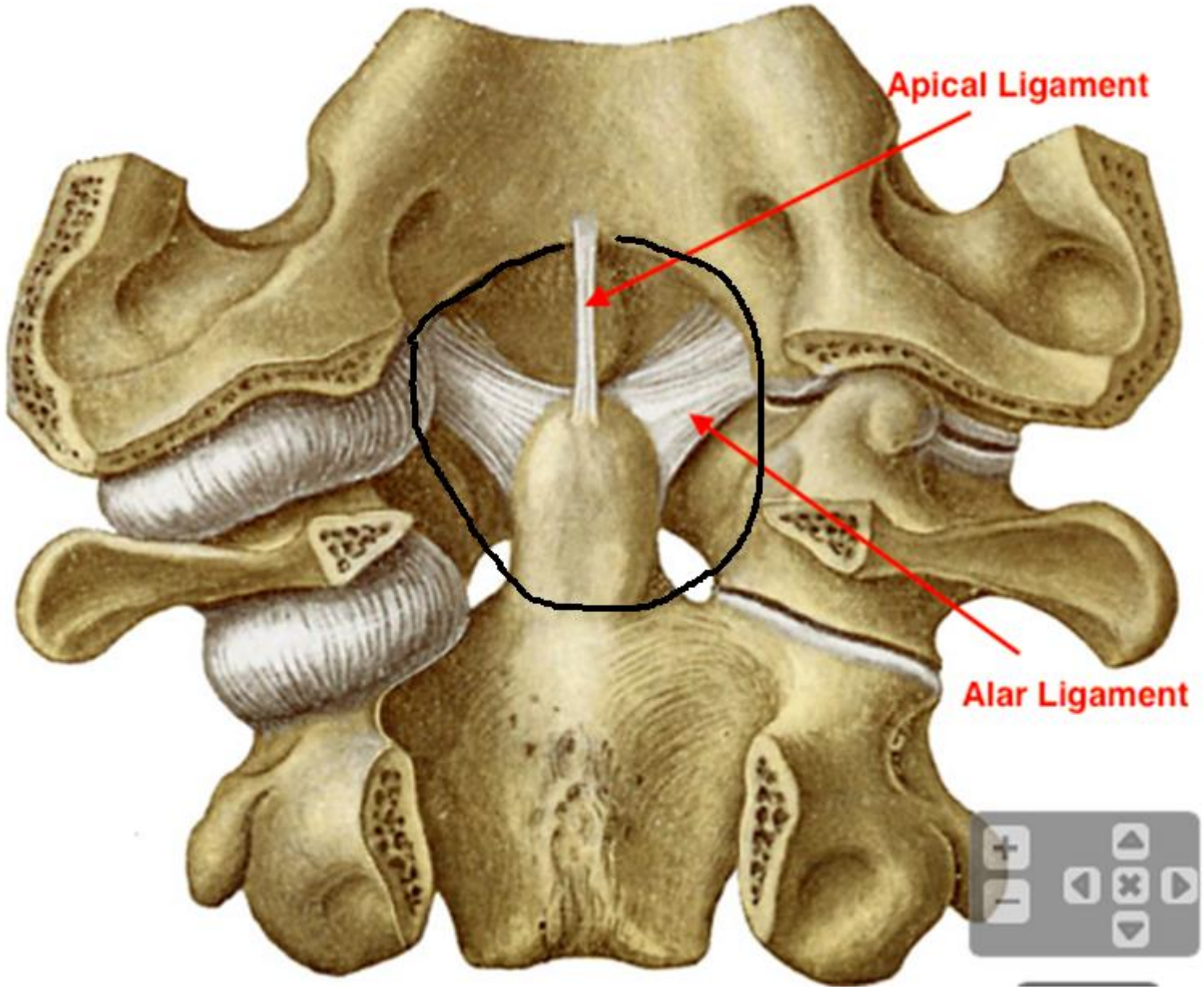



Facet for articulation with dens
Dens=fused bodies of C1 and C2



Atlas and Axis

- Where is the body of the atlas (Fused with that of the axis to form the dens or odontoid process)
- What does the dens signify (Fused bodies of Atlas and Axis)
- Why is it called the dens (Looks like a tooth)

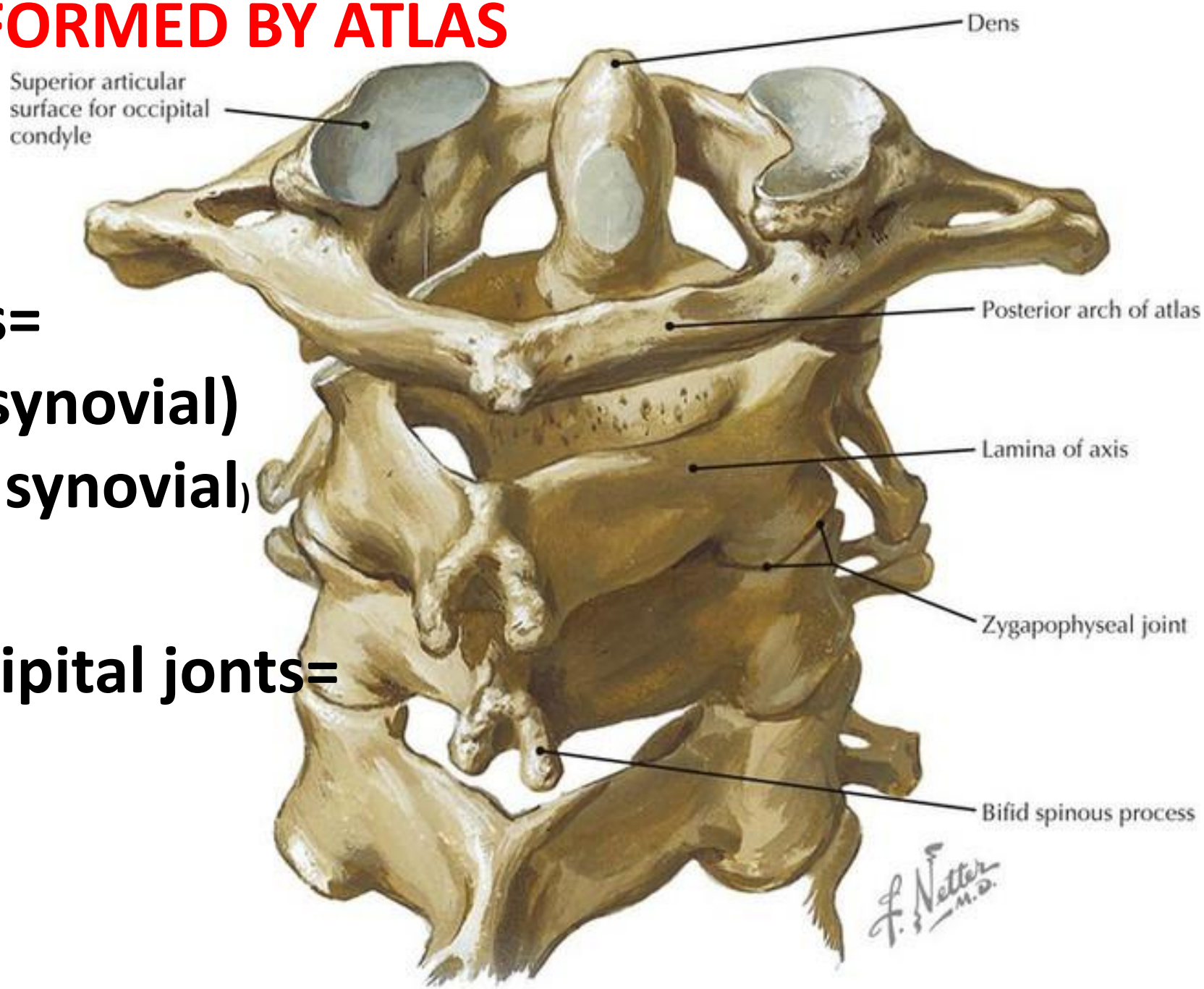

Apical Ligament
Alar Ligament

- Joints between the C1 and C2…atlanto axial joints…classify with movement
- Atlanto occipital joints…classify with movement

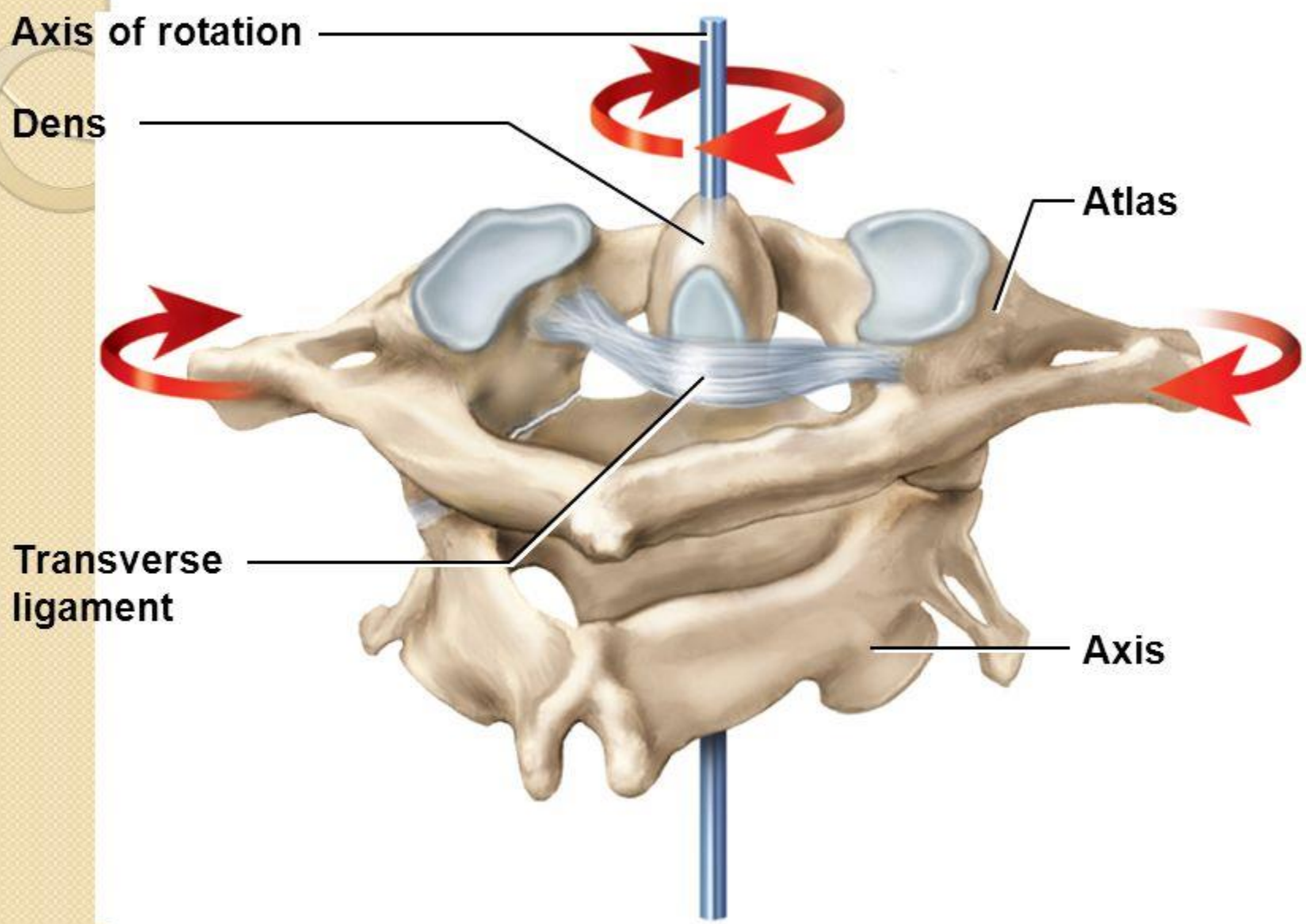
JOINTS FORMED BY ATLAS

3 atlanto axial joints=
one median (Pivot synovial)
And 2 lateral (Plane synovial)

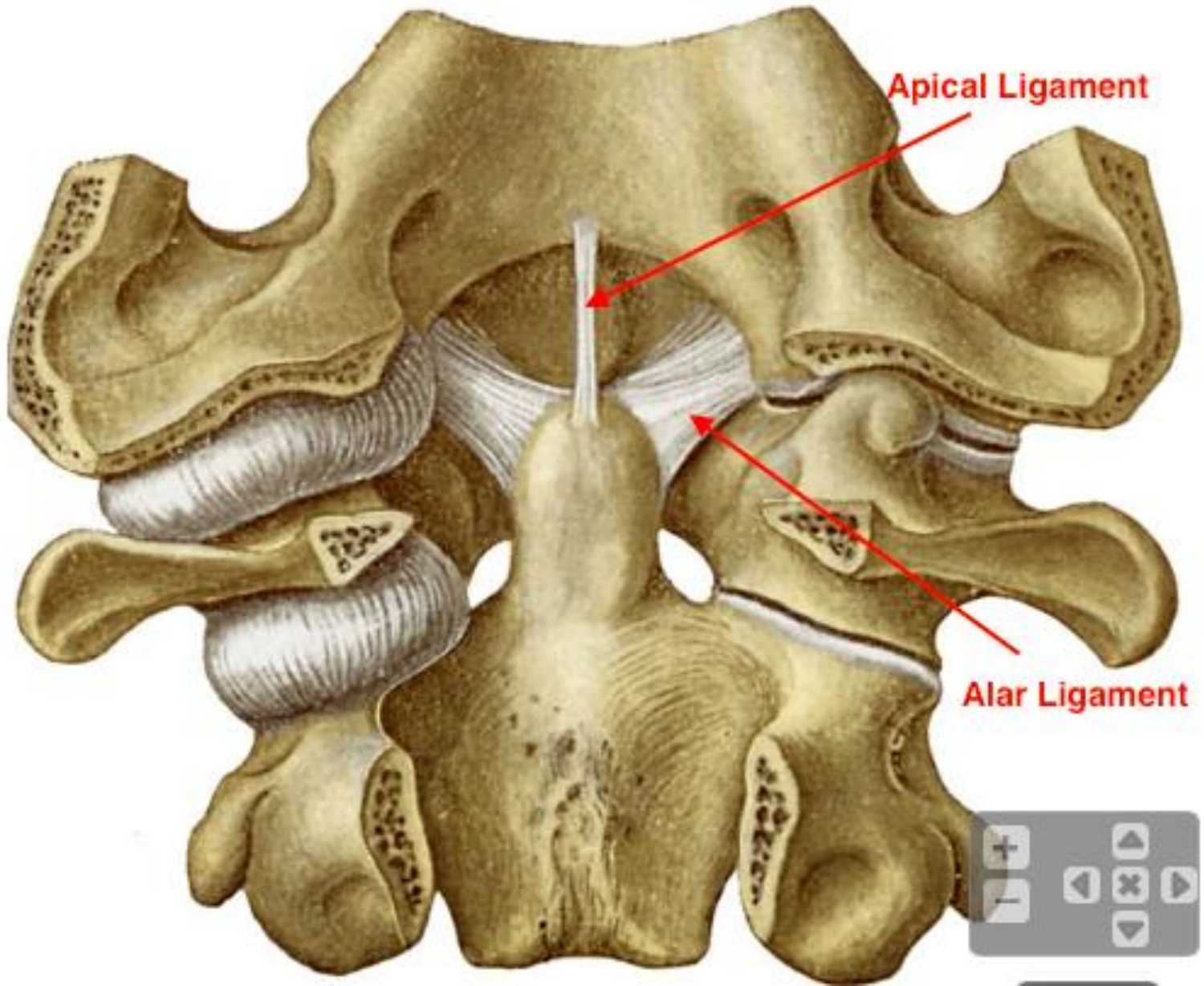
A pair of atlanto occipital jonts=
Bicondylar Synovial



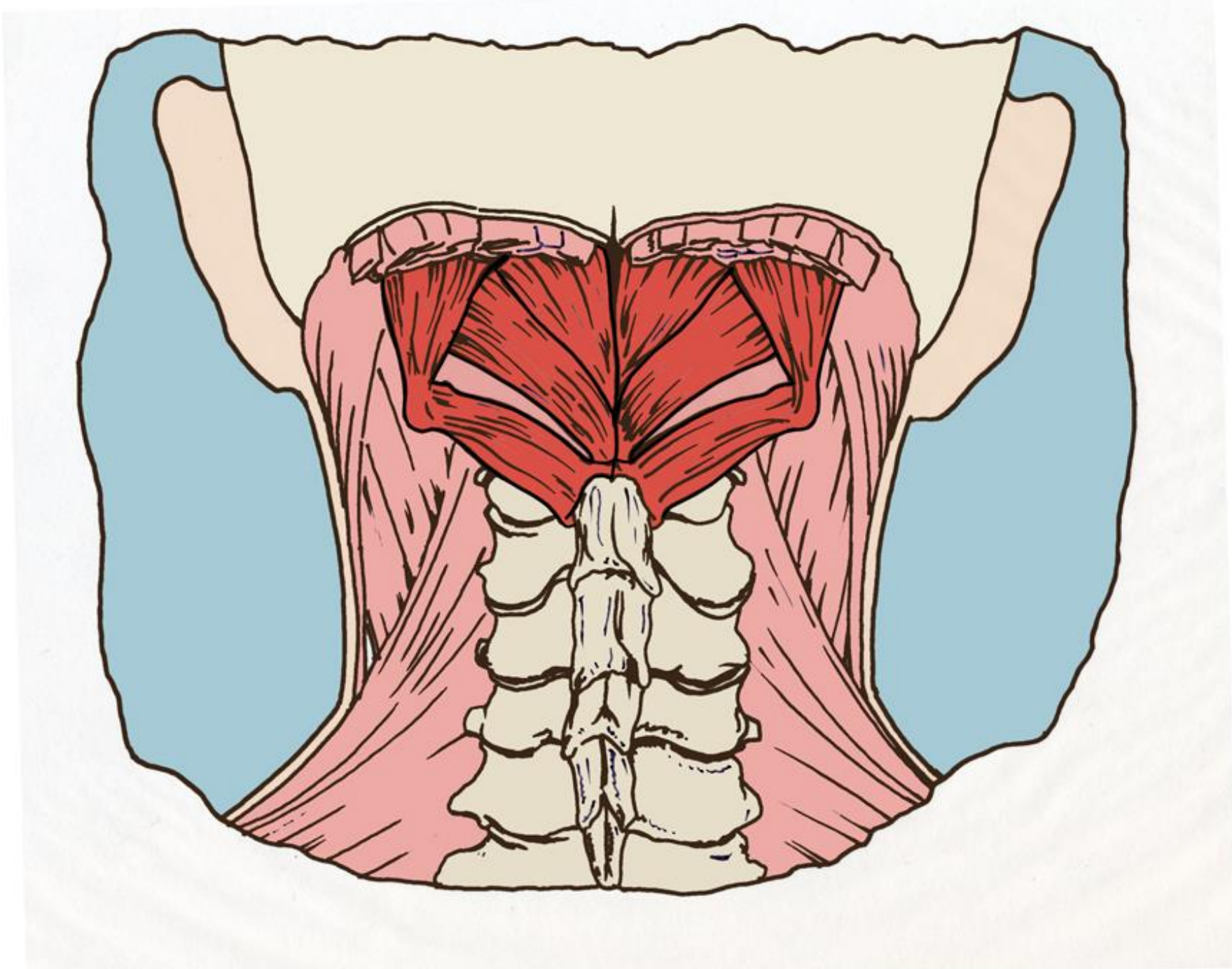
Atlas and Axis Articulation

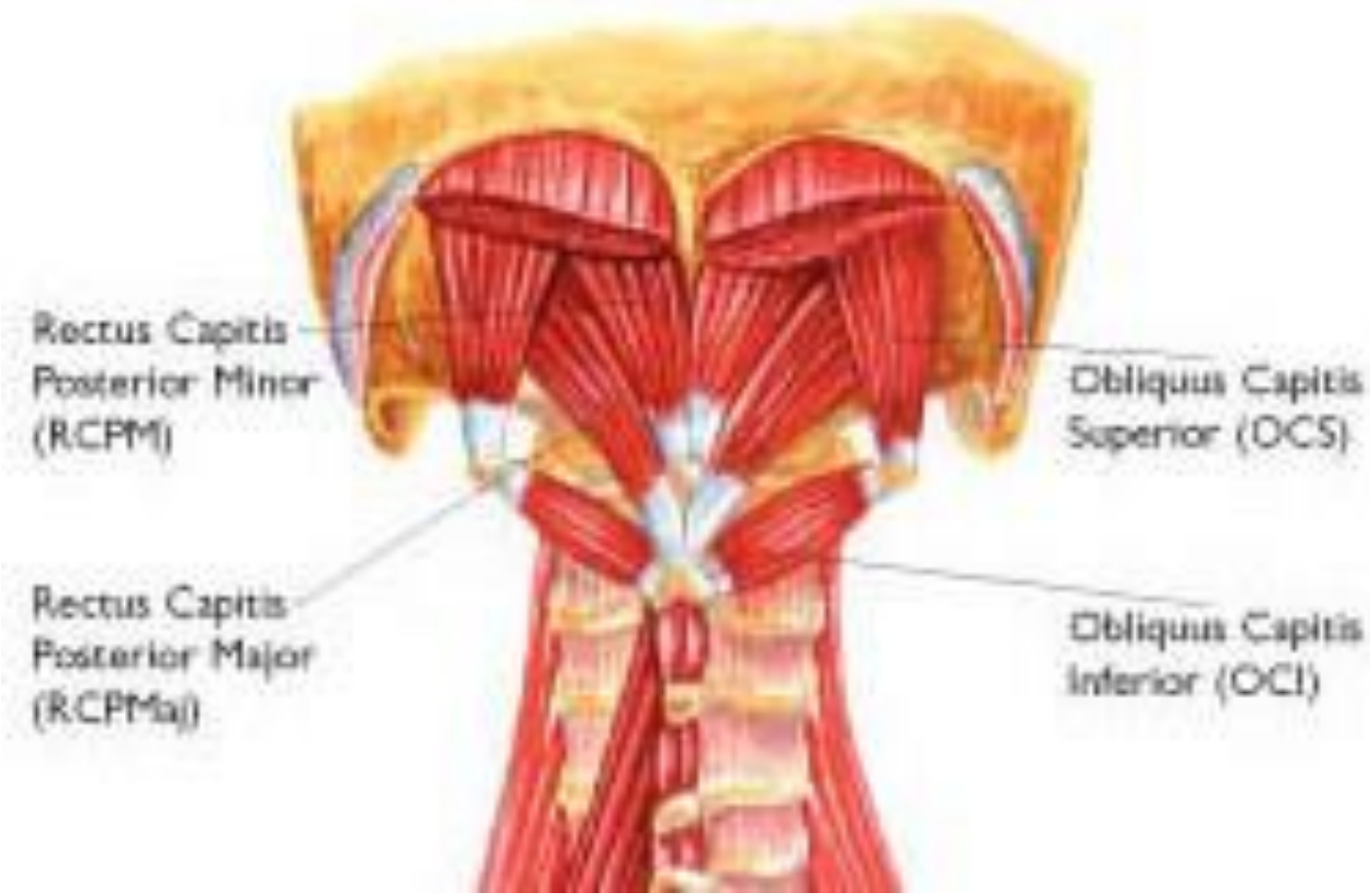


- Ligaments attached to dens (Apical and alar ligaments)


Apical Ligament
Alar Ligament

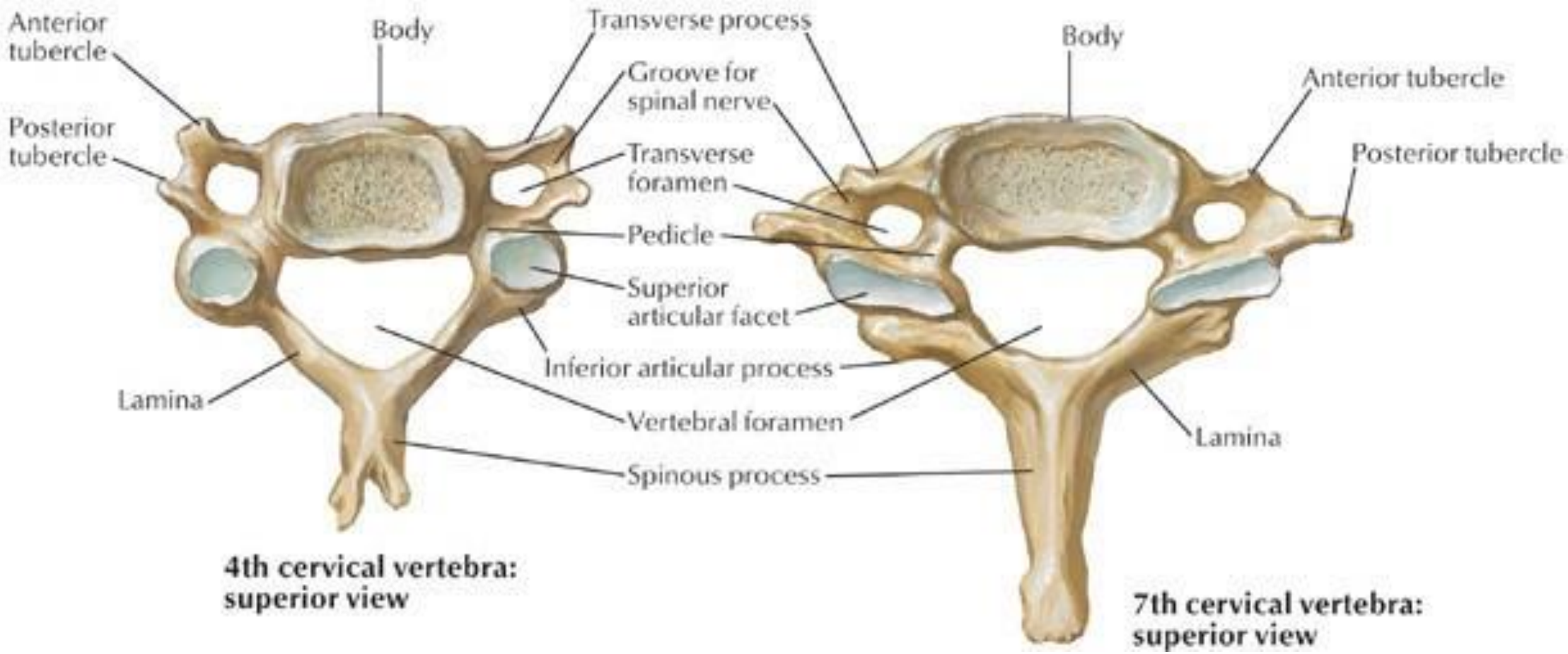
- Why is the spine of the axis large. Name muscles attached to it




Rectus Capitis Posterior Minor (RCPM)
Rectus Capitis Posterior Major (RCPMaj)
Obliquus Capitis Superior (OCS)
Obliquus Capitis Inferior (OCI)

C7

- Why is it atypical? (Has a prominent spine, only vertebral veins pass through the foramen transversarium)
- What passes through the foramen transversarium of C7
- Why is it also called vertebrae prominens (because of its long prominent spine)


Anterior tubercle
Body
Transverse process
Groove for spinal nerve
Posterior tubercle
Transverse foramen
Pedicle
Superior articular facet
Inferior articular process
Lamina
Vertebral foramen
Spinous process
4th cervical vertebra: superior view
Body
Anterior tubercle
Posterior tubercle
Lamina
7th cervical vertebra: superior view