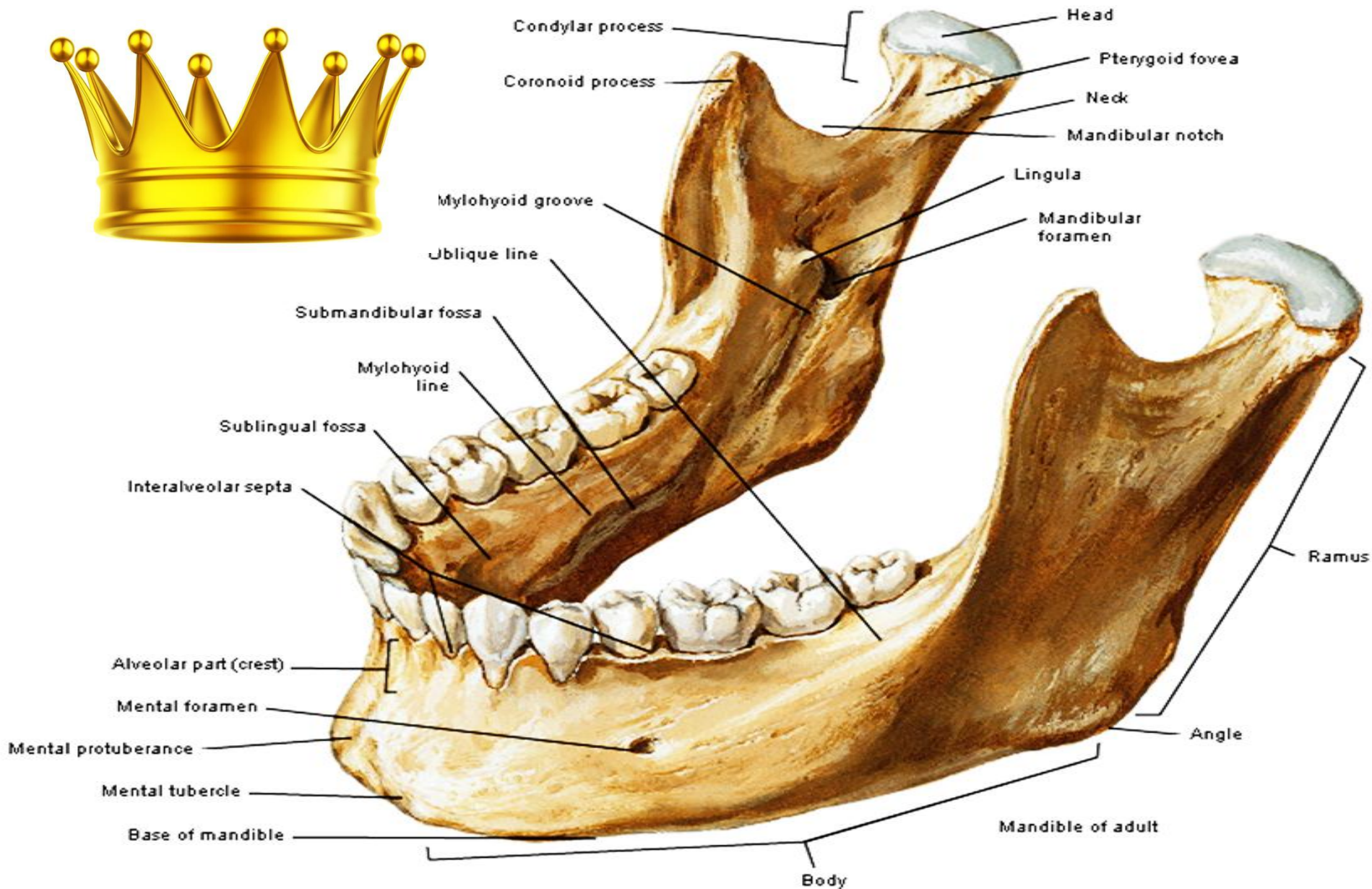


MANDIBLE , CERVICAL VERTEBRAE

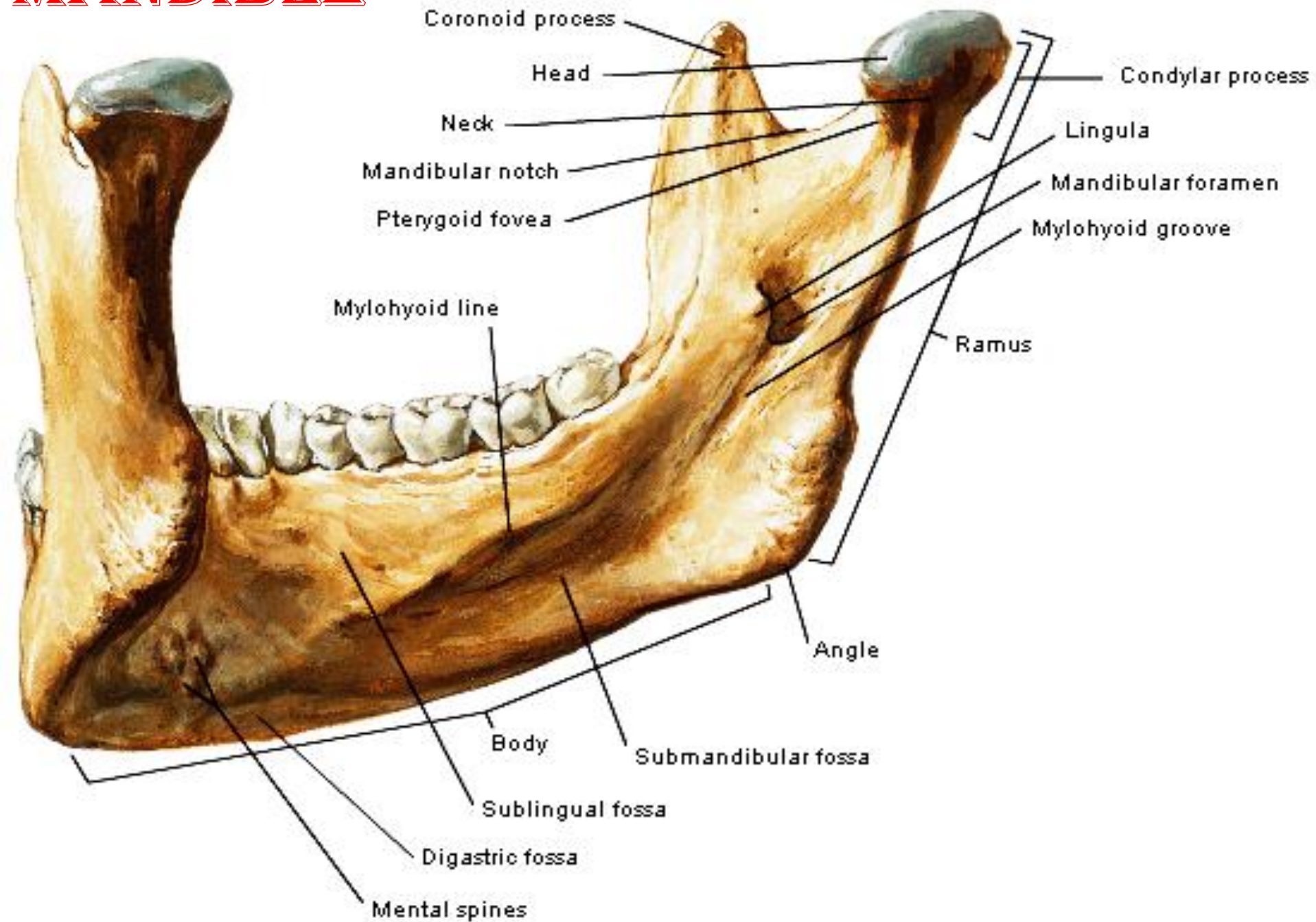


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MUTAH UNIVERSITY

MANDIBLE



MANDIBLE



MANDIBLE

Ligaments related to mandible

1-Tempromandibular ligament

from articular eminence
to lateral side of neck

2-Stylomandibular ligament

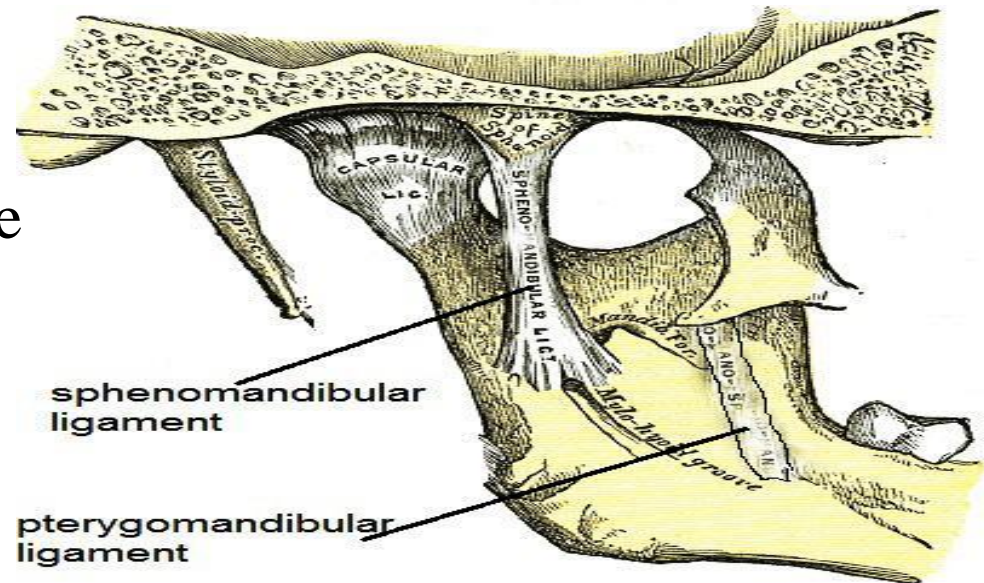
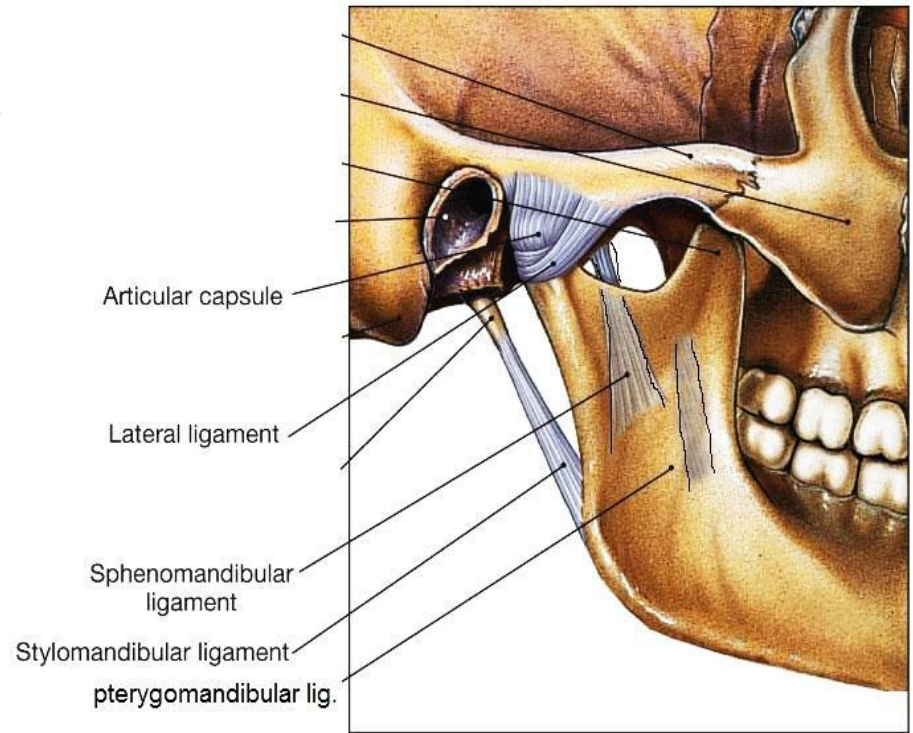
from styloid process
to angle of mandible

3-Pterygomandibular ligament

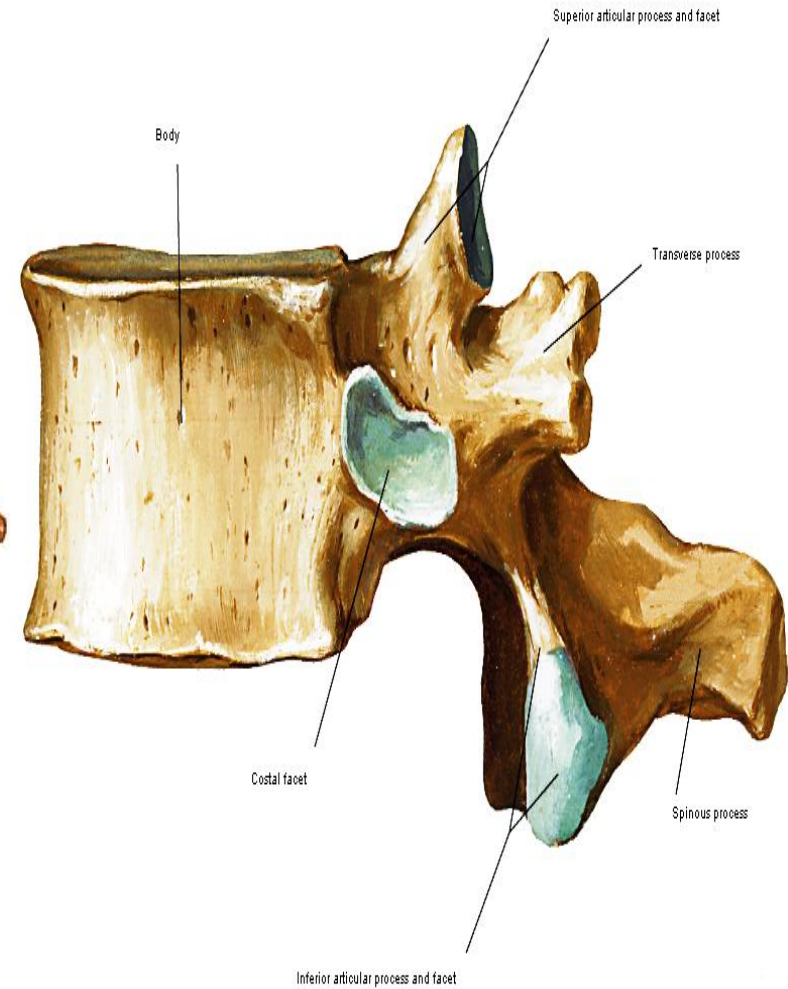
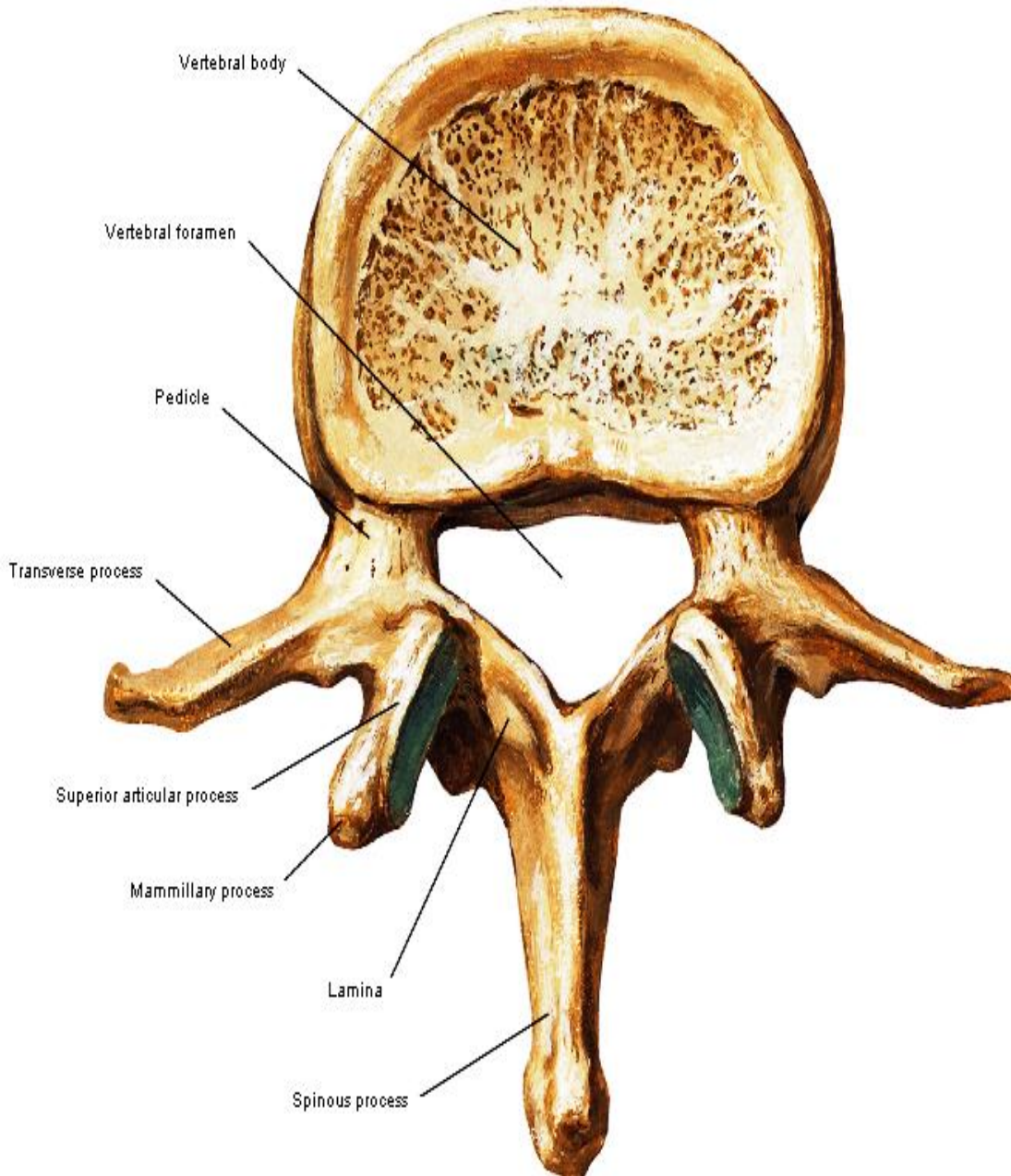
from pterygoid Hamulus
to posterior end of Mylohyoid line

4-Sphenomandibular ligament

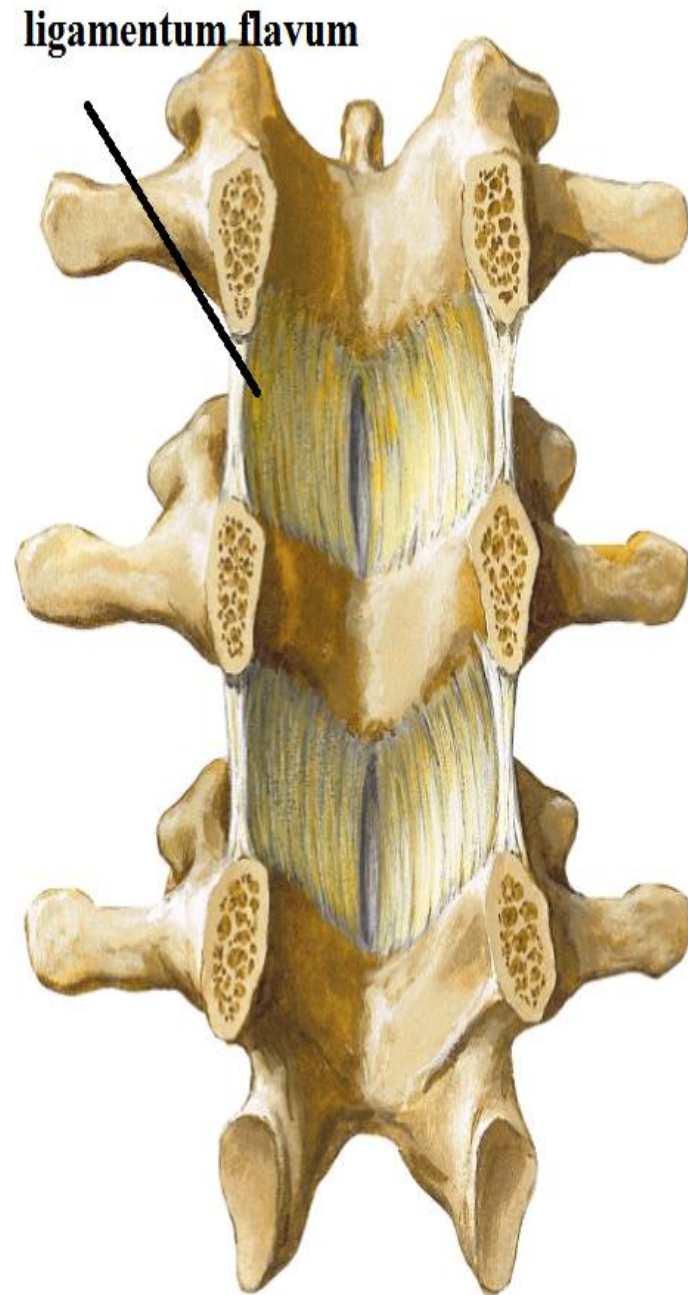
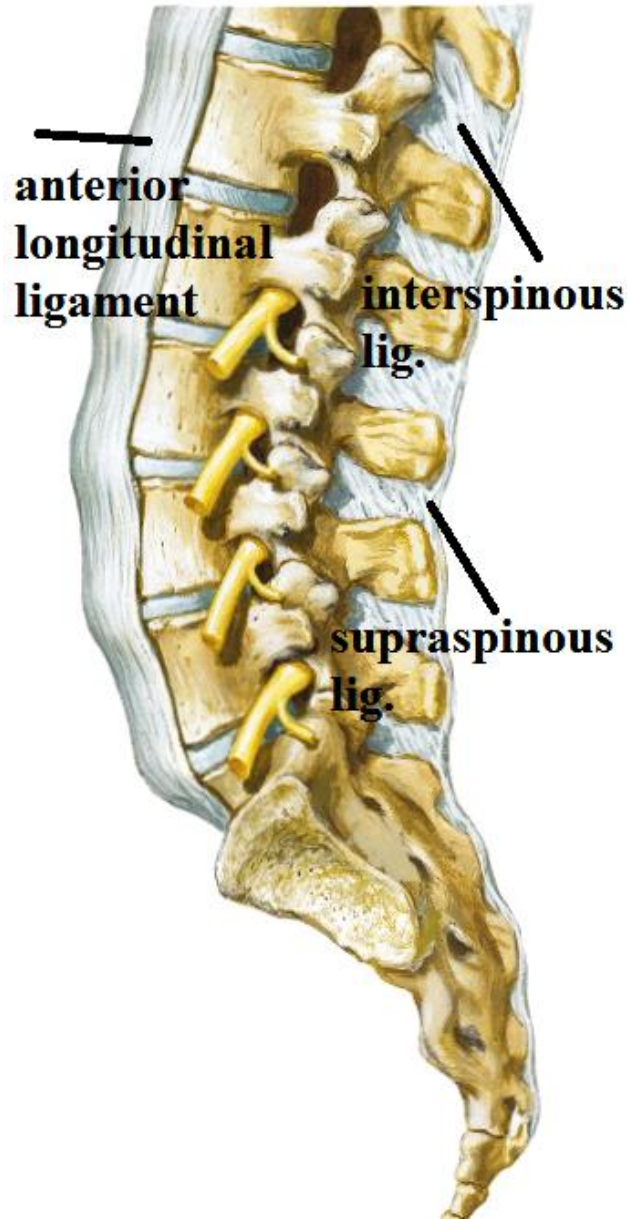
from spine of sphenoid
to lingula



VERTEBRÆ



VERTEBRÆ



CERVICAL VERTEBRAE

NO. 7

characters

- 1-presence of foramen transversarium
- 2-bifid spine

classified into

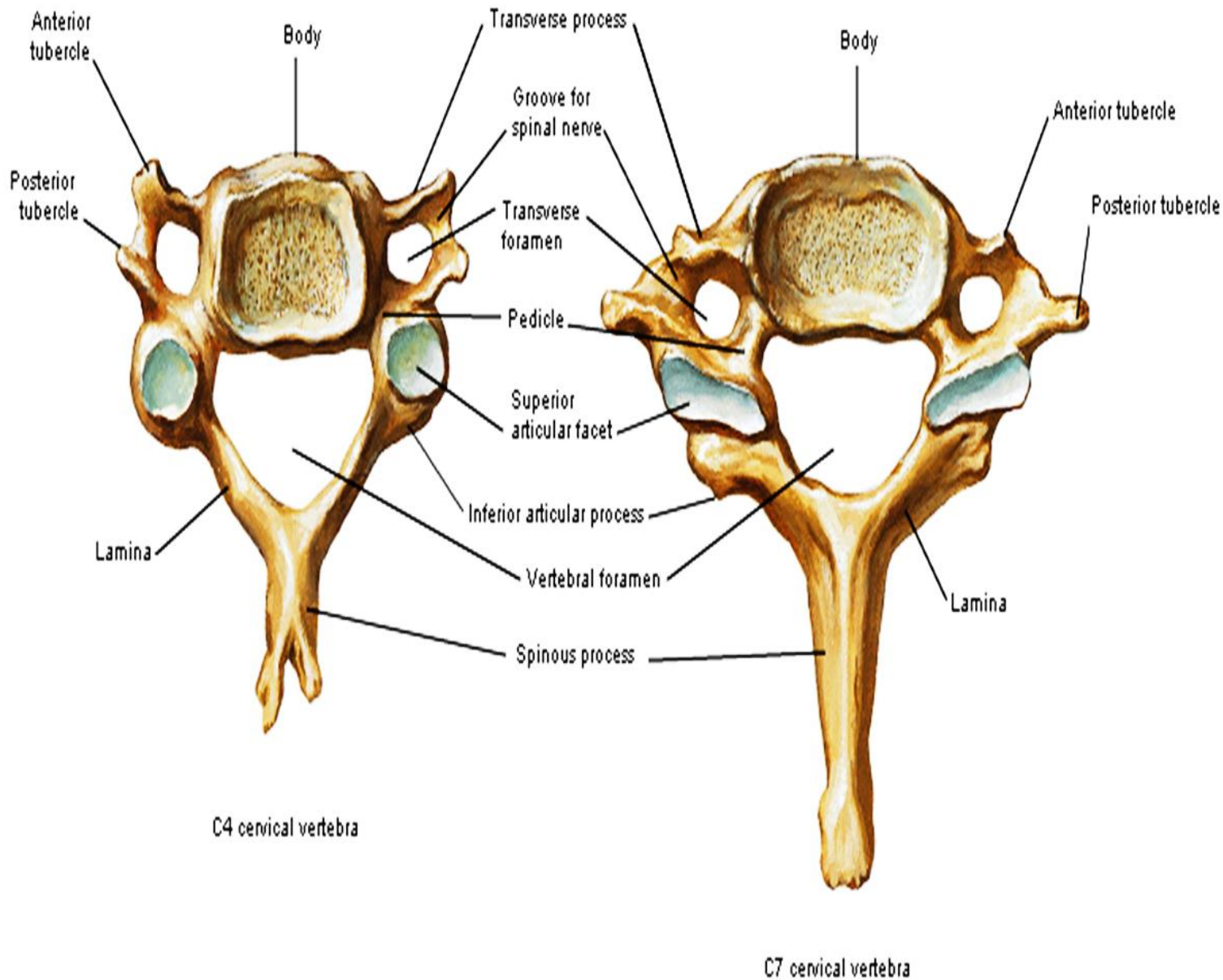
a- Typical 3-6.

b- atypical

1 (atlas)

2 (axis)

7 its spine is not bifid

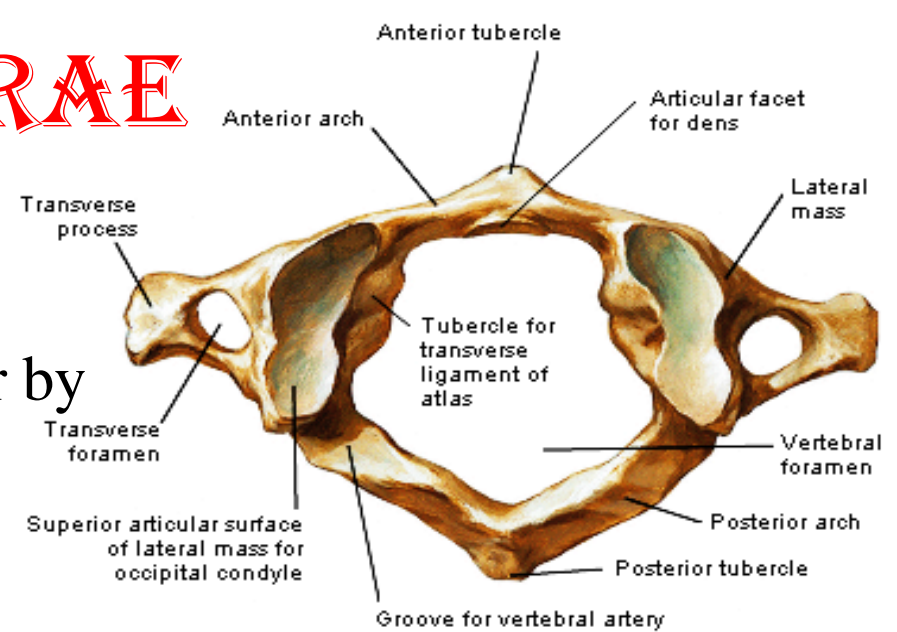


CERVICAL VERTEBRÆ

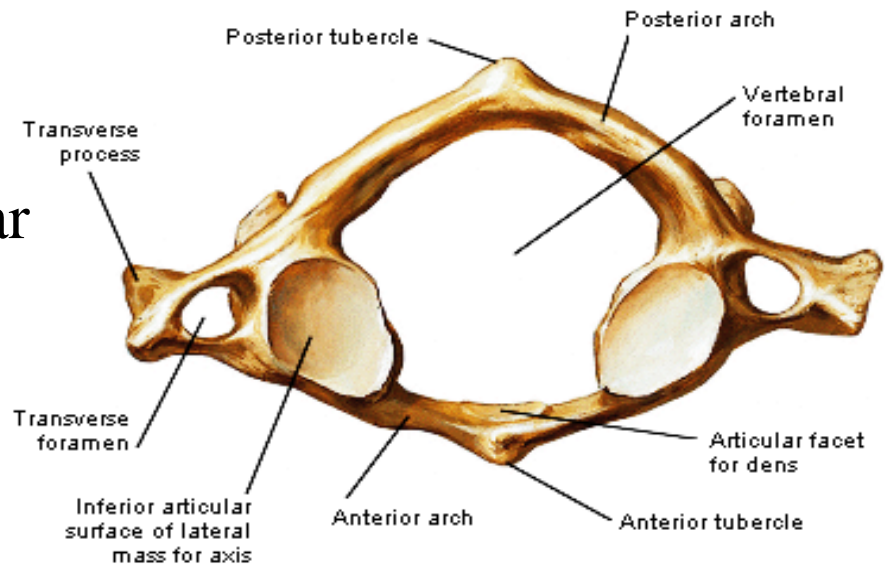
C1 ATLAS

-a bony ring formed of
2 lateral masses connected together by
short anterior arch and
a longer posterior arch.

-the 2 Lateral mass carries
a kidney-shaped superior articular facet
, articulates with occipital condyle
to form atlanto-occipital joint
and a nearly circular inferior articular
facet, articulates with Body of axis
to form the lateral atlanto-axial joint



Atlas (C1): superior view

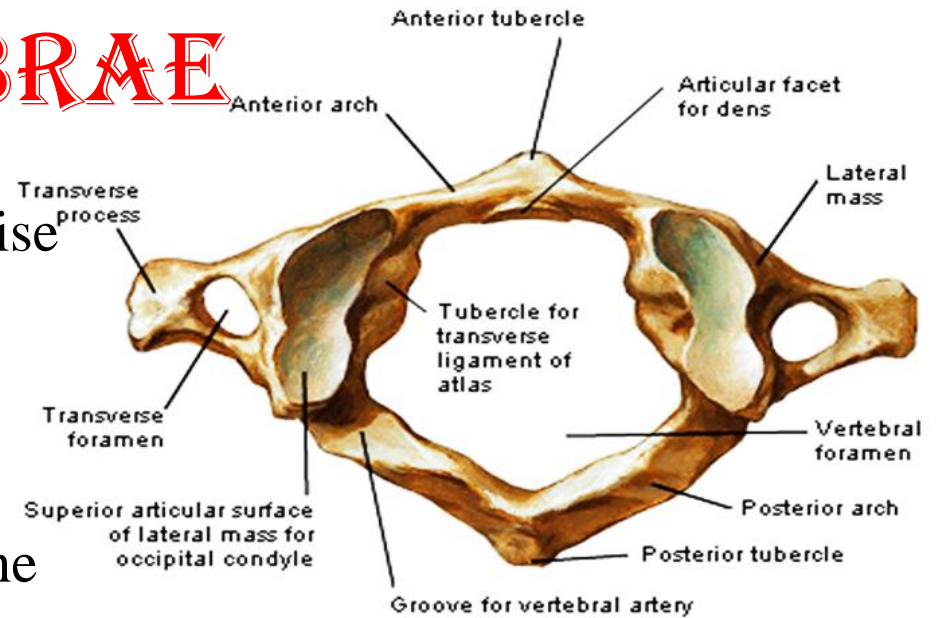


Atlas (C1): inferior view

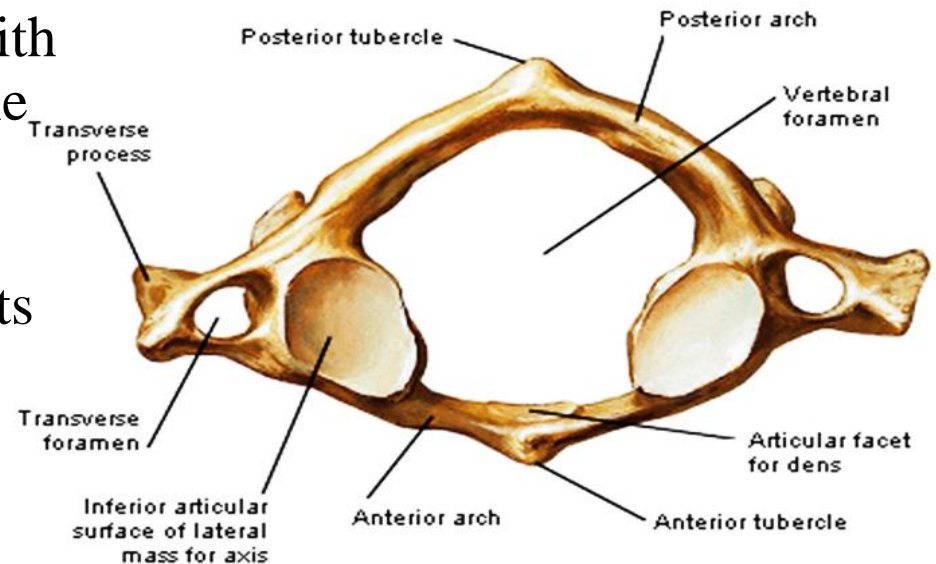
CERVICAL VERTEBRÆ

C1 ATLAS

- The sides of the lateral masses give rise to a pair of transverse processes. Each transverse process presents a foramen transversarium.
- The medial side of each lateral mass presents a tubercle for attachment of the transverse ligament of the atlas.
- The anterior arch carries an anterior tubercle. Posteriorly, the anterior arch carries an articular Facet articulates with the facet on the Front of the dens of the axis to form the median atlanto-axial joint.
- Posterior arch presents a groove on its upper surface behind lateral mass on each side for the 3rd part of vertebral artery. Its back shows a posterior tubercle in the middle



Atlas (C1): superior view



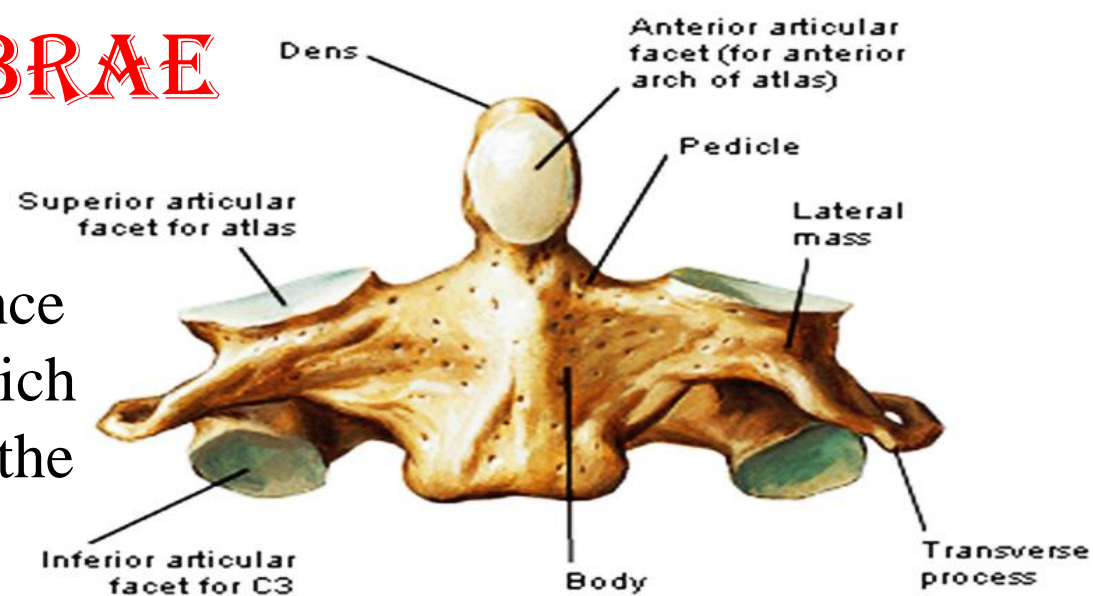
Atlas (C1): inferior view

CERVICAL VERTEBRAE

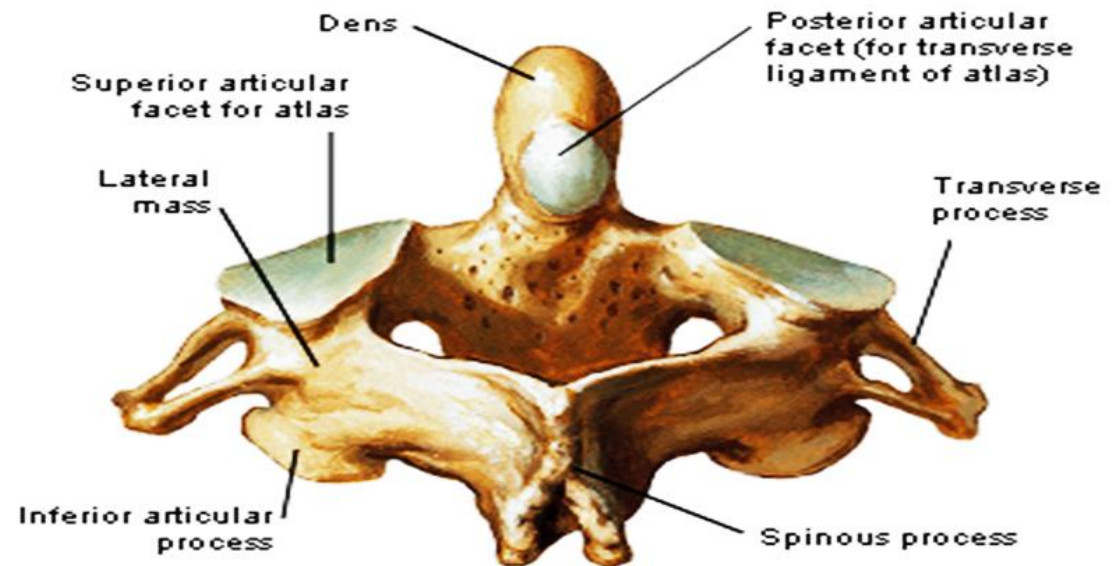
C2 AXIS

It is characterized by the presence of dens or odontoid process which projects from the upper part of the body.

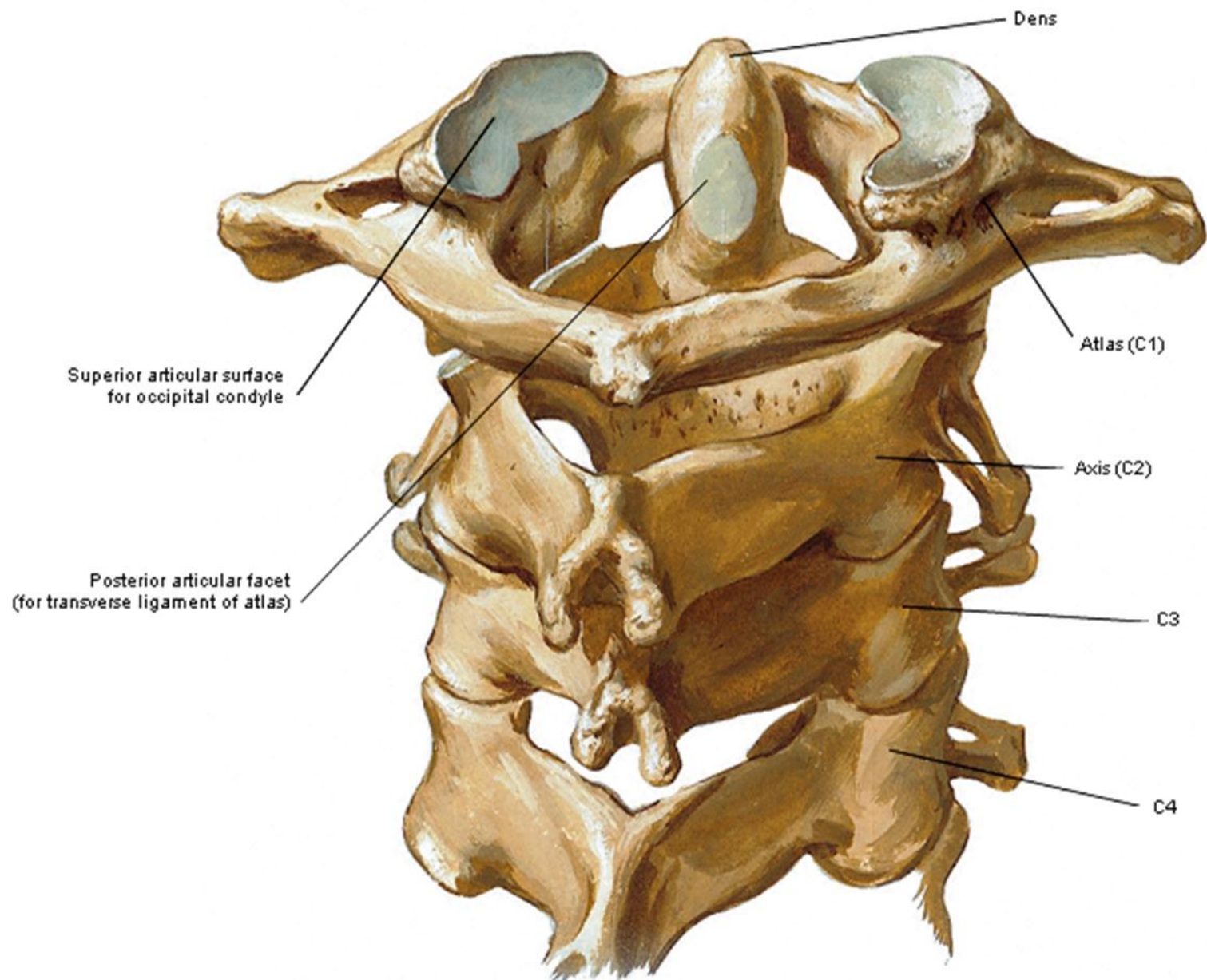
The dens is grooved posteriorly by transverse ligament of atlas.



Axis (C2): anterior view



Axis (C2): posterosuperior view



ATLANTO OCCIPITAL JOINT

Type: synovial.

Variety: condylar.

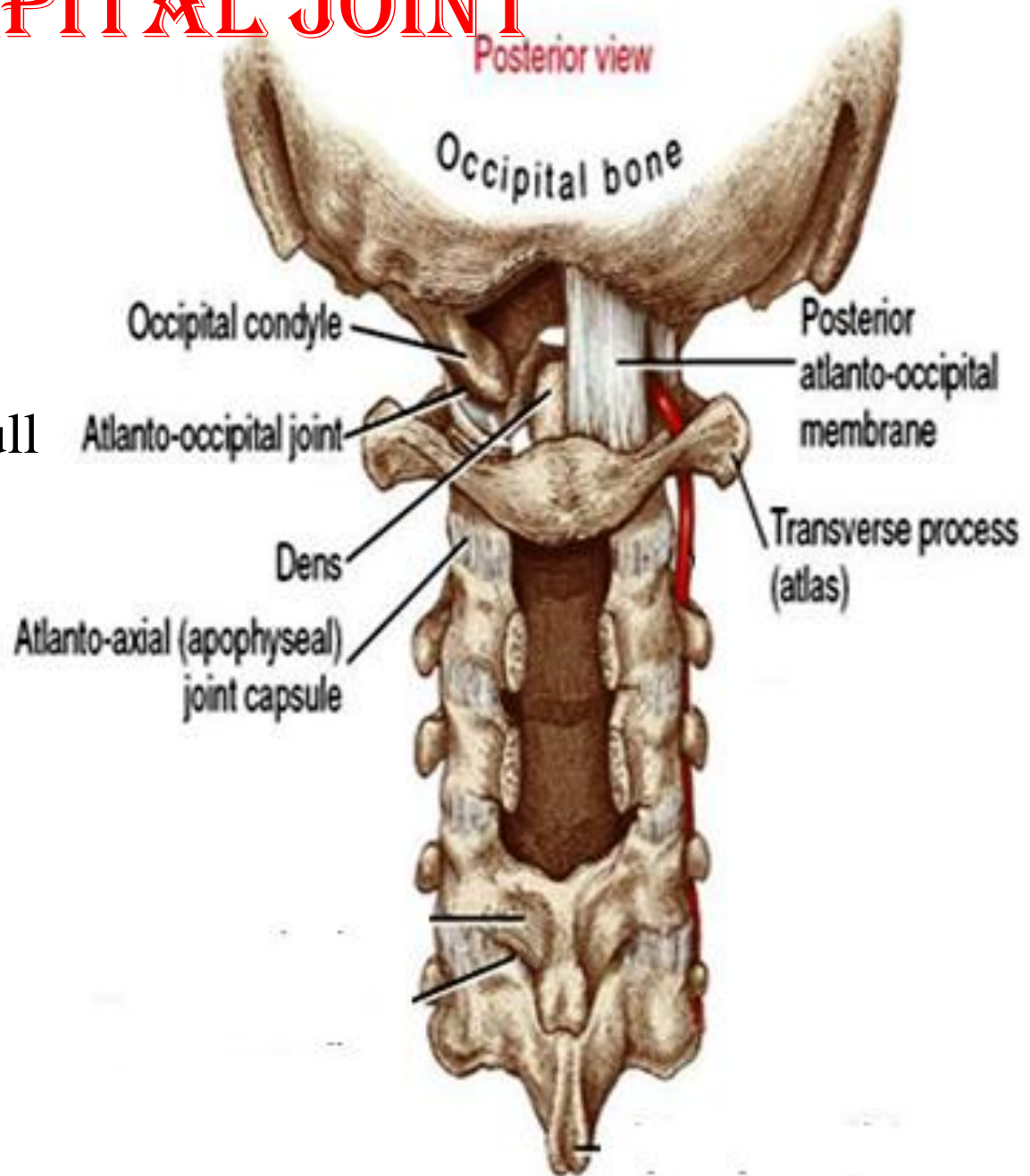
Articular surfaces:

Above:

occipital condyles of the skull

Below:

the kidney shaped
articular facet of C1(atlas)



ATLANTO OCCIPITAL JOINT

Ligaments:

1- Anterior Atlanto-occipital membrane.

From: upper border of anterior arch of atlas

To : anterior margin of foramen magnum

2- Posterior Atlanto-occipital membrane.

From: upper border of posterior arch of atlas

To : posterior margin of foramen magnum

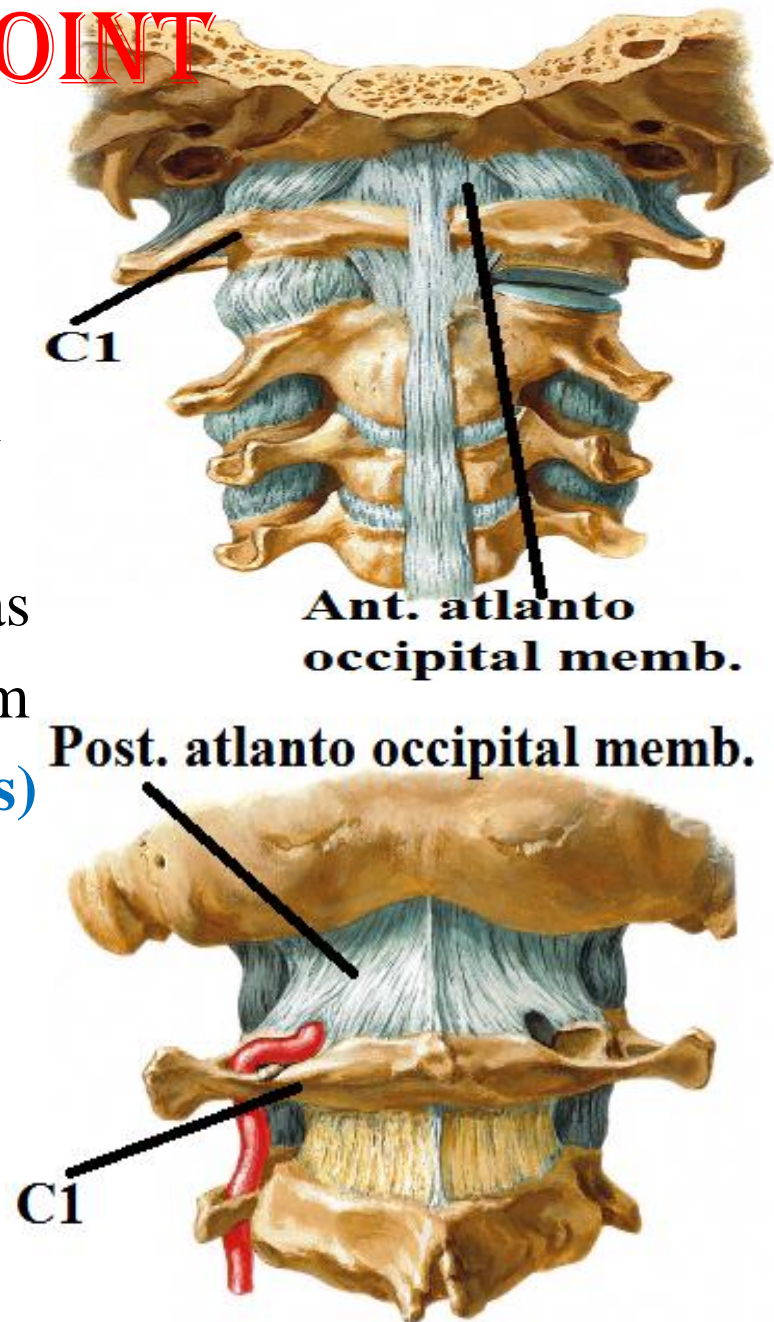
Movements: - (head nodding = saying yes)

1- Flexion.

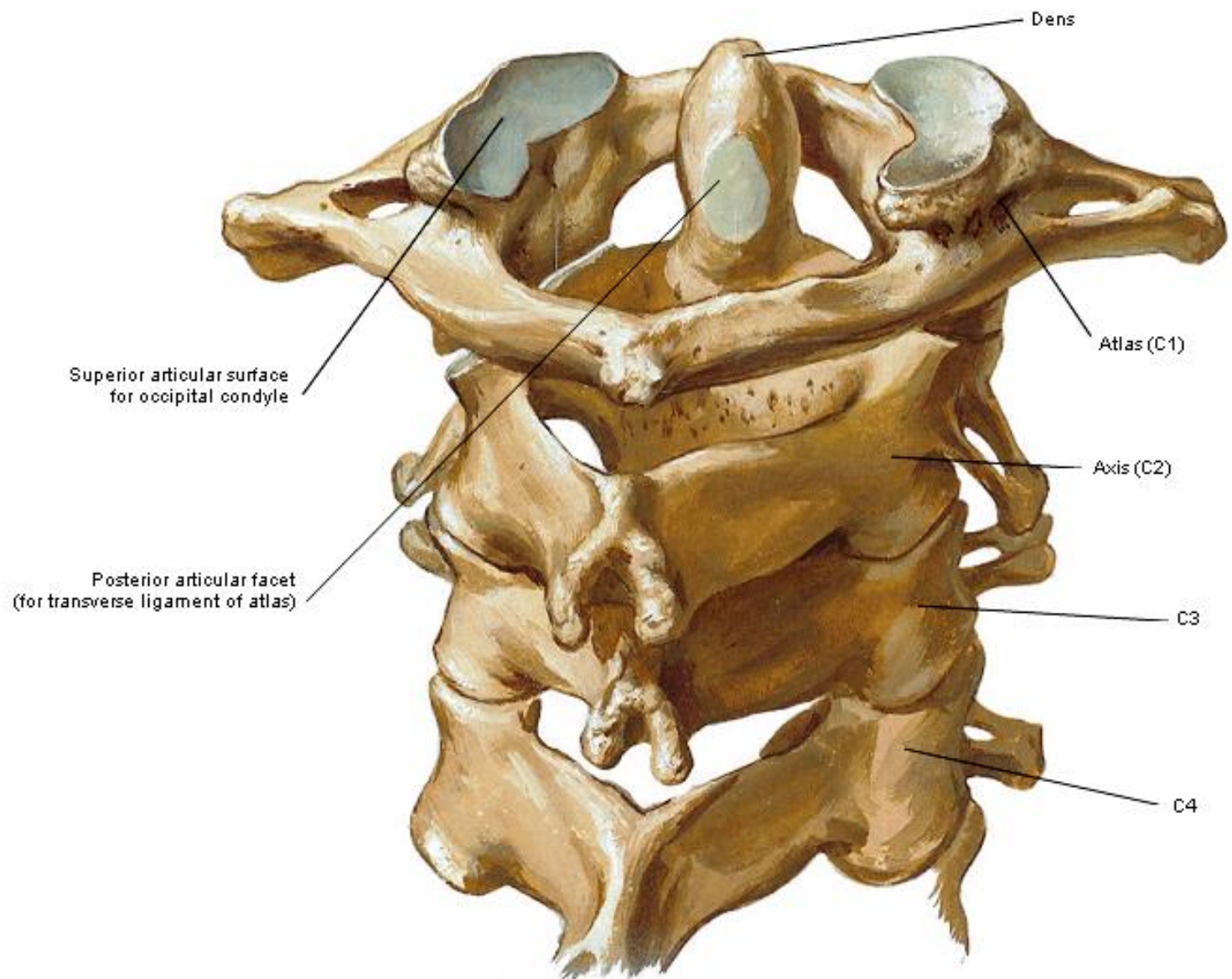
By longus capitis & rectus capitis anterior

2- Extension

By semispinalis capitis, rectus capitis posterior major & minor, sup. oblique



ATLANTO AXIAL JOINTS



ATLANTO AXIAL JOINTS

3 joints (1 median & 2 lateral Atlanto axial)

Type: synovial

Variety: the median is pivot
while the 2 lateral are plane

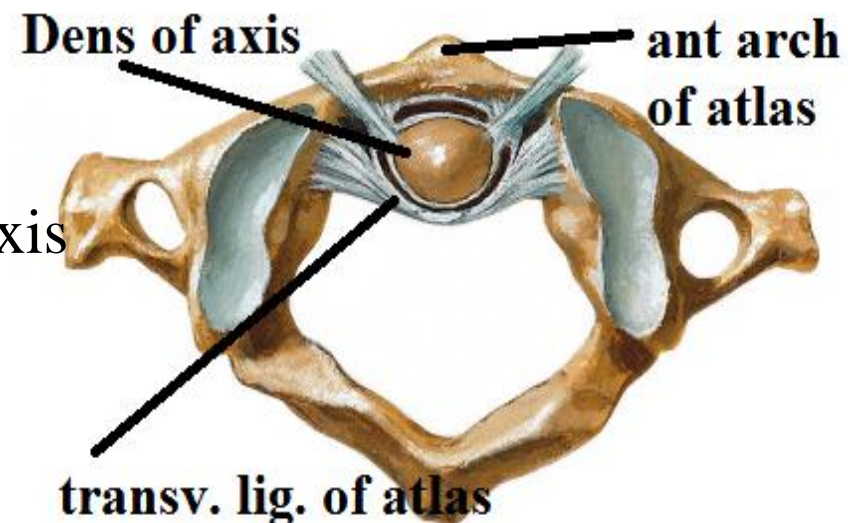
Articular surfaces:

The median Atlanto axial:

Between the odontoid process of axis
& anterior arch of atlas and transverse
ligament of atlas

The lateral Atlanto axial joints:

Between the articular facets of atlas & axis



ATLANTO AXIAL JOINTS

Ligaments:

1- Apical ligament.

From: tip of odontoid process of C2

To : anterior margin of foramen magnum.

2- Alar ligament.

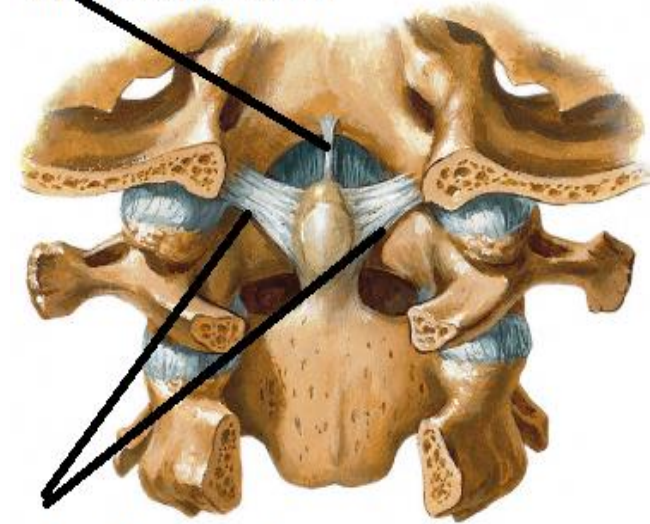
From: sides of odontoid process of C2

To : medial sides of occipital condyle.

3-Cruciate ligament:

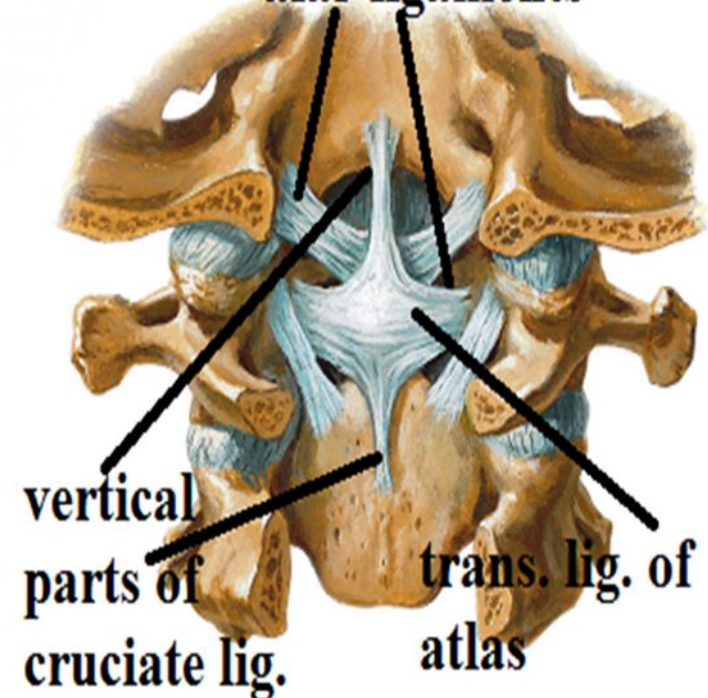
- Transverse ligament between two tubercles on the atlas.
- Vertical ligament, upper band, from transverse ligament to the basilar part of occipital bone, lower band from transverse ligament to the body of the axis

apical ligament



alar ligament

alar ligaments



vertical
parts of
cruciate lig.

trans. lig. of
atlas

ATLANTO AXIAL JOINTS

Ligaments:

4- Membrana tectoria

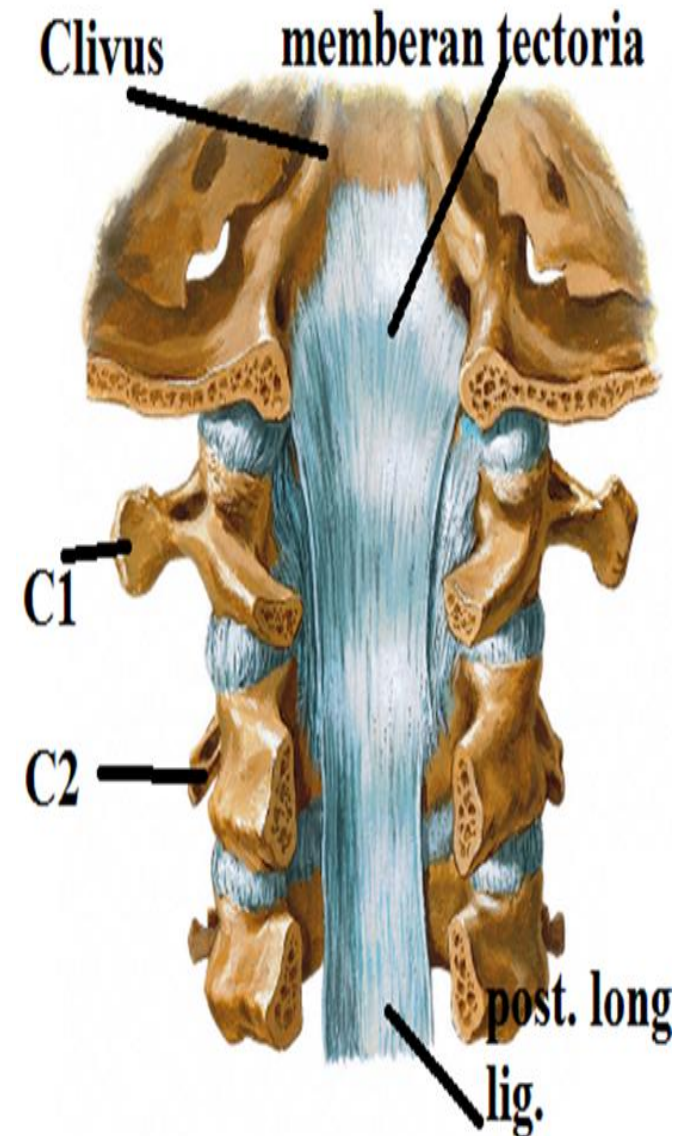
the continuation of post. Long. ligament

From: back of body of C2

To : clivus in front of foramen magnum

Movements: - (head rotation = saying no)

By rectus capitis post major, inferior oblique, splenius capitis of one side & Sternomastoid of the opposite side



THANQ