

وسهلا

أهلا

يُمنع أخذ السلايدات بدون
إذن المحرر واي اجراء
يخالف ذلك يقع تحت
طائلة المسؤولية القانونية



الأستاذ الدكتور يوسف حسين

أستاذ التشريح وعلم الأجنة - كلية الطب - جامعة الزقازيق - مصر

رئيس قسم التشريح و الأنسجة و الأجنة - كلية الطب - جامعة مؤتة - الأردن

مساعد العميد لشؤون الطلاب والامتحانات - كلية الطب - جامعة مؤتة - الأردن

دكتورة من جامعة كولونيا المانيا

جروب الفيس د. يوسف حسين (استاذ التشريح)

https://www.youtube.com/channel/UCVSNqbibj9UWYaJdd_cn0PQ

Prof. Dr. Youssef Hussein Anatomy - YouTube

اليوتيوب د. يوسف حسين

dr_youssefhussein@yahoo.com



Muscles of mastication

<https://www.youtube.com/@ProfDrYoussefHusseinAnatomy/playlists>

Muscles of mastication

- **General rules** : <https://www.youtube.com/@ProfDrYoussefHusseinAnatomy/playlists>

They include **4 muscles**:

1) Masseter.

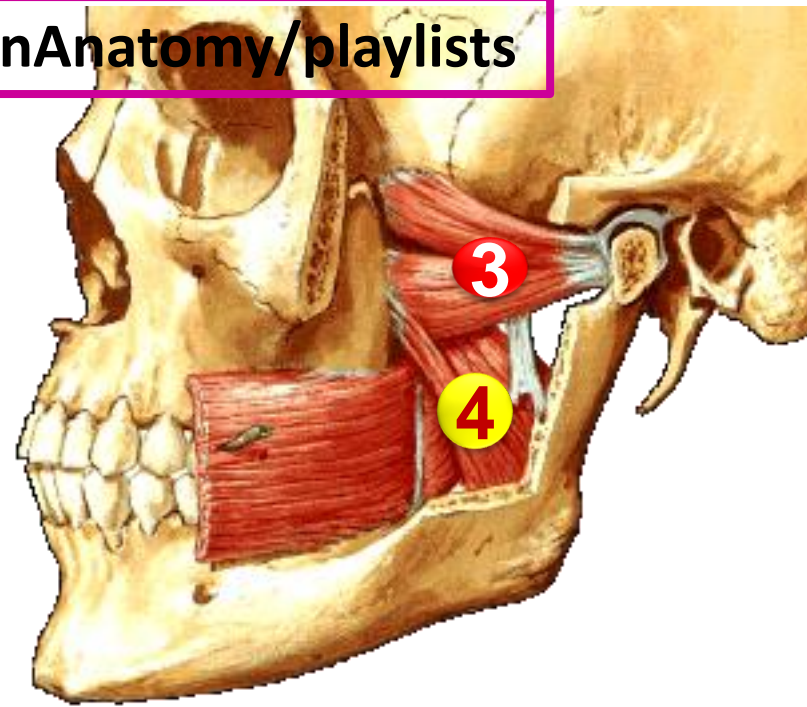
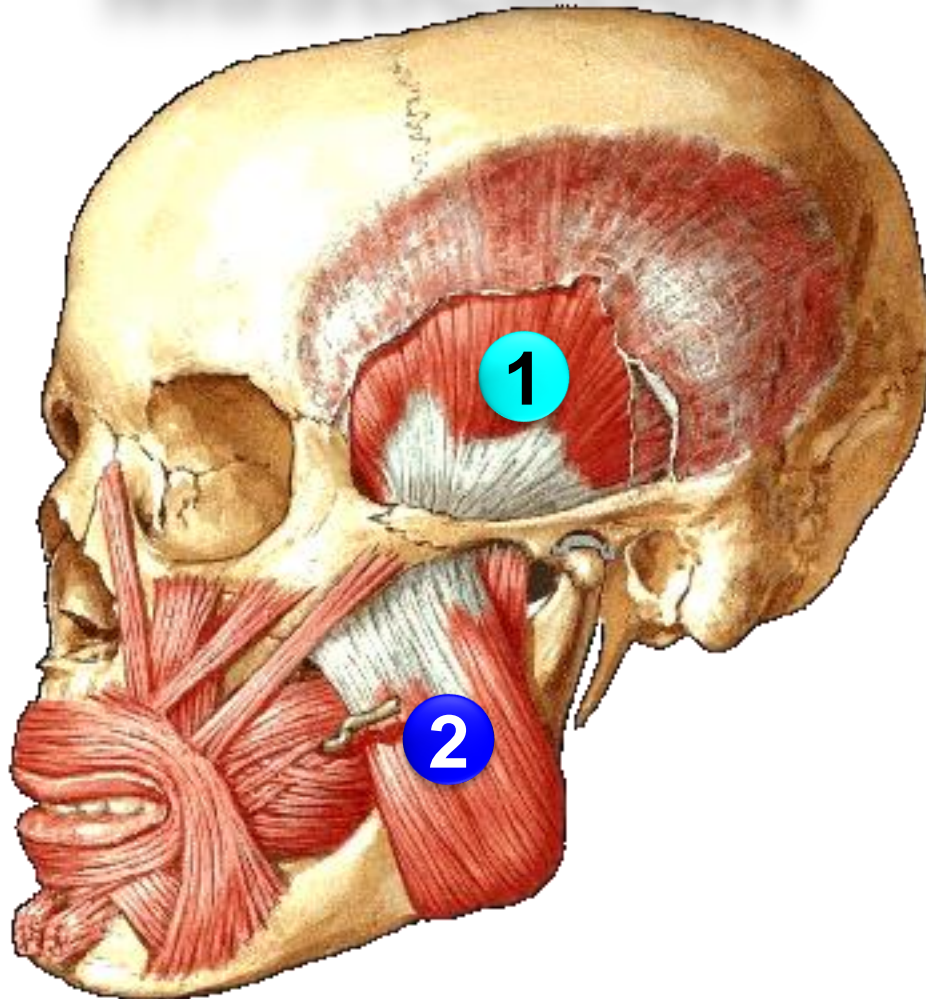
2) Temporalis

3) Lateral pterygoid.

4) Medial pterygoid.

- **Origin**: they arise from the temporal and infratemporal fossa.
- **Insertion**: they are inserted into the ramus of the mandible.
- **Nerve supply**: they are supplied by the mandibular nerve.
- **Development**, they developed from the 1st pharyngeal arch.

Muscles of Mastication



1. Temporalis
2. Masseter
3. Lateral Pterygoid
4. Medial pterygoid

Temporalis

Origin From Temporal fossa and temporal fascia

Zygomatic arch.

Fan shaped muscle

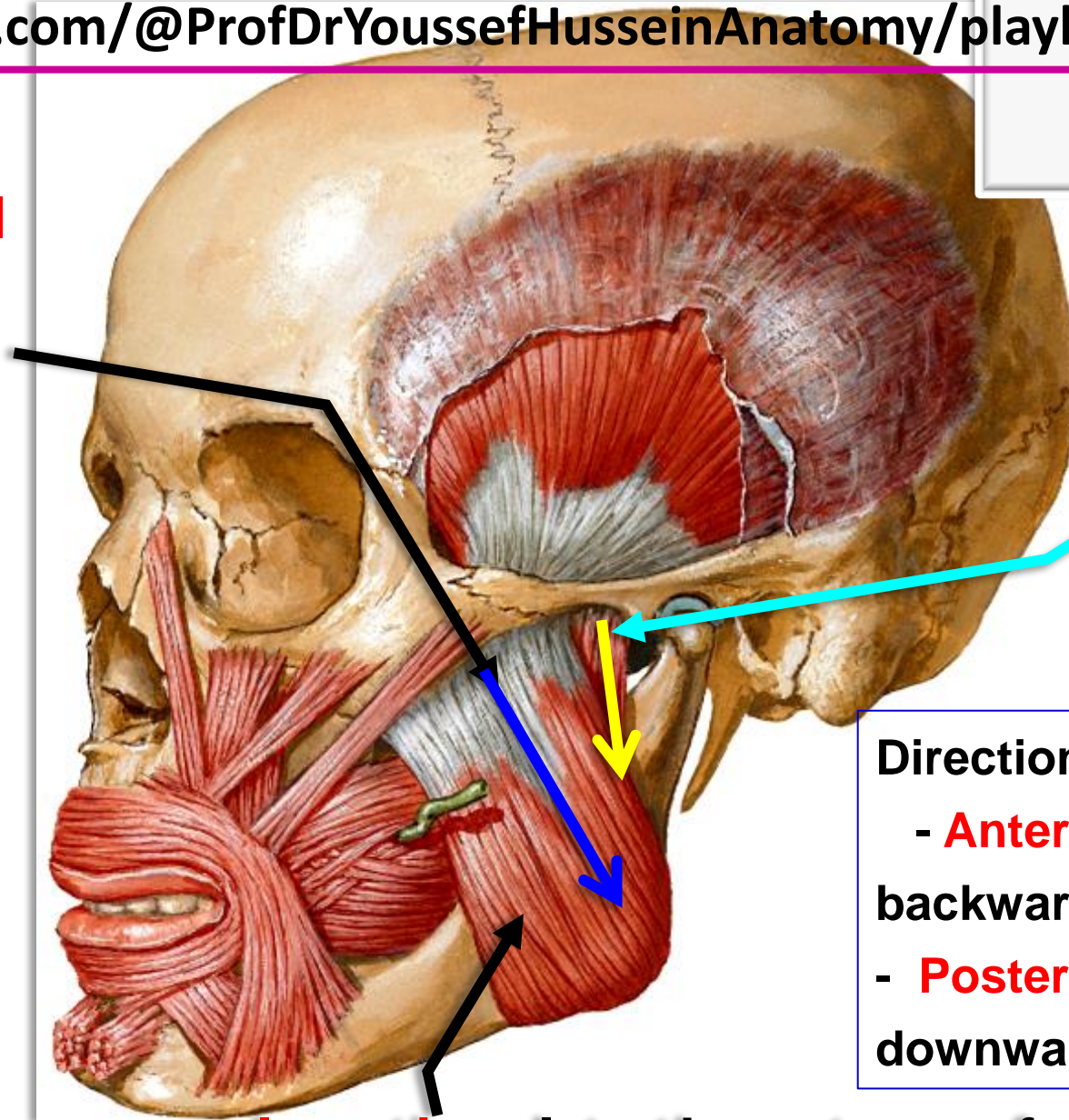
Origin From Inferior temporal line

- **Direction of fibres;**
 - **Anterior** fibers are vertical downward.
 - **Posterior** fibers are downward and forward.

Insertion: into the tip, anterior border and posterior border and inner surface of the **coronoid process.**

Masseter muscle

Origin: Superficial fibers from lower border zygomatic arch



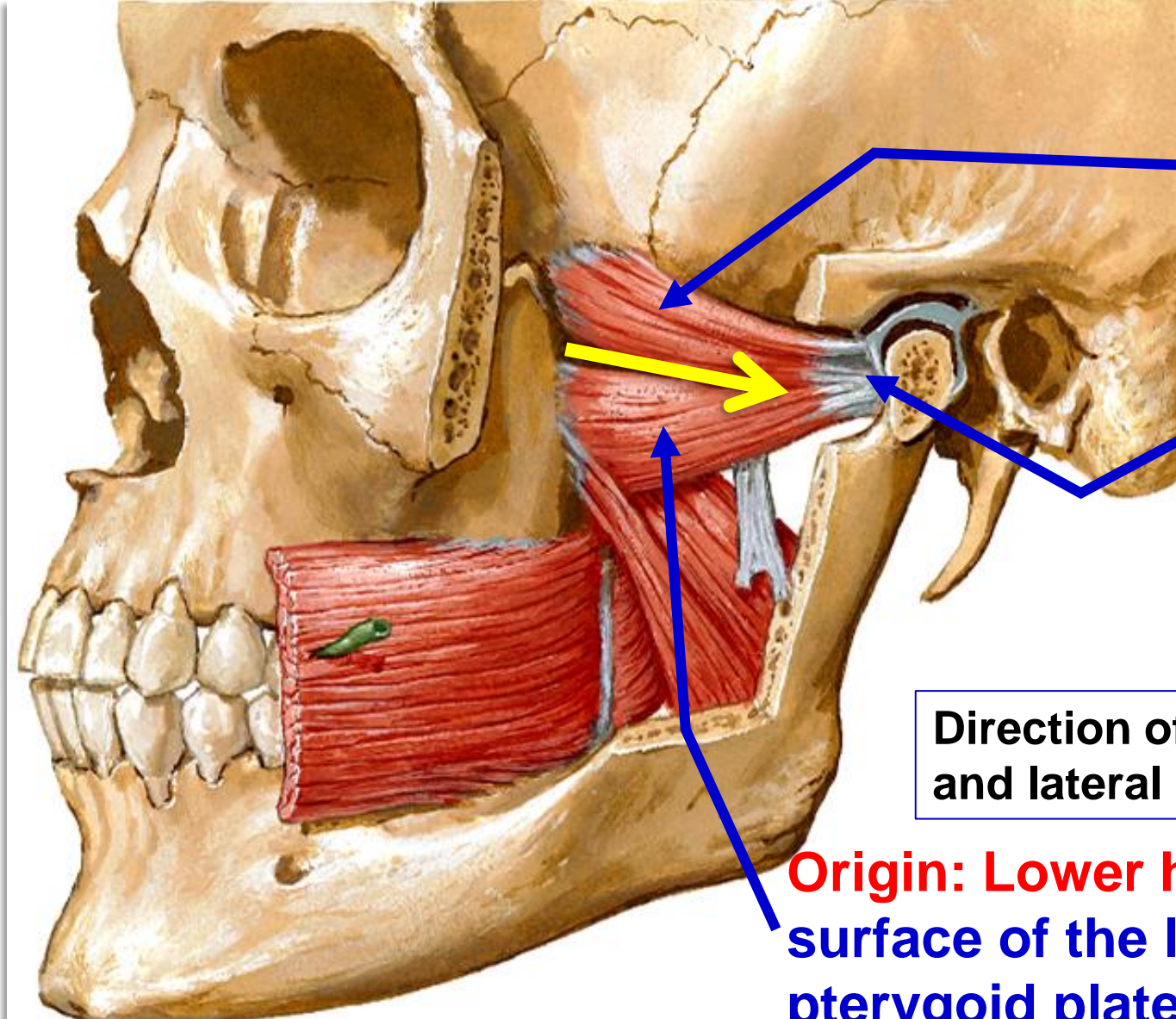
Origin: Deep fibers from deep surface of zygomatic arch

Direction of the fibres:

- **Anterior** directed downwards and backwards.
- **Posterior** directed vertically downwards.

Insertion: Into the outer surface of the ramus of the mandible

Lateral Pterygoid muscle



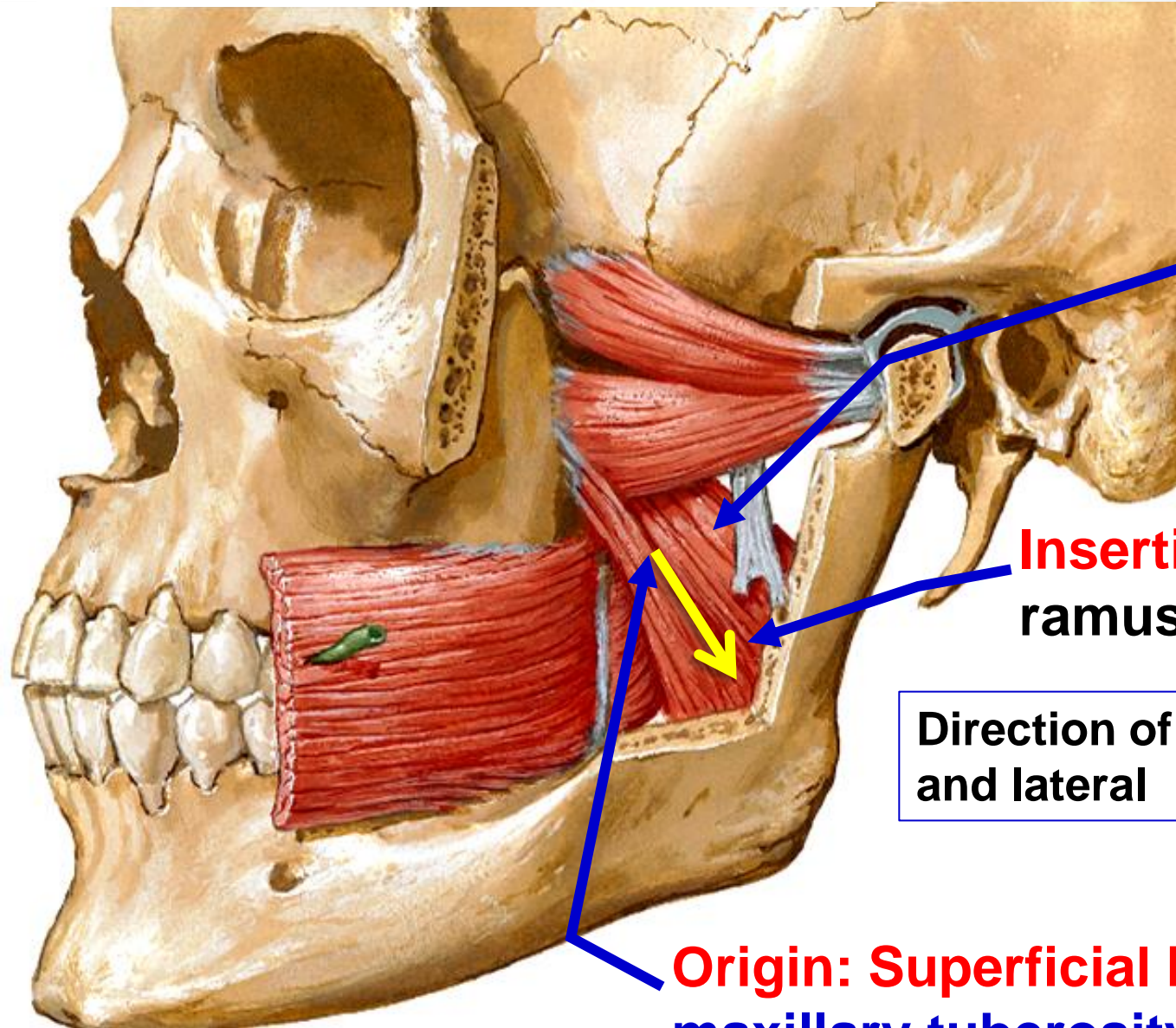
Origin: Upper head from infratemporal surface of greater wing of sphenoid

- **Insertion:** Pterygoid fovea on anterior aspect of neck of mandible.
- Capsule and articular disc of temporomandibular joint.

Direction of the fibres: horizontally backward and lateral

Origin: Lower head lateral surface of the lateral pterygoid plate

Medial Pterygoid muscle



Origin: Deep head from medial surface of lateral pterygoid plate

Insertion: Into the inner surface of the ramus and angle of the mandible

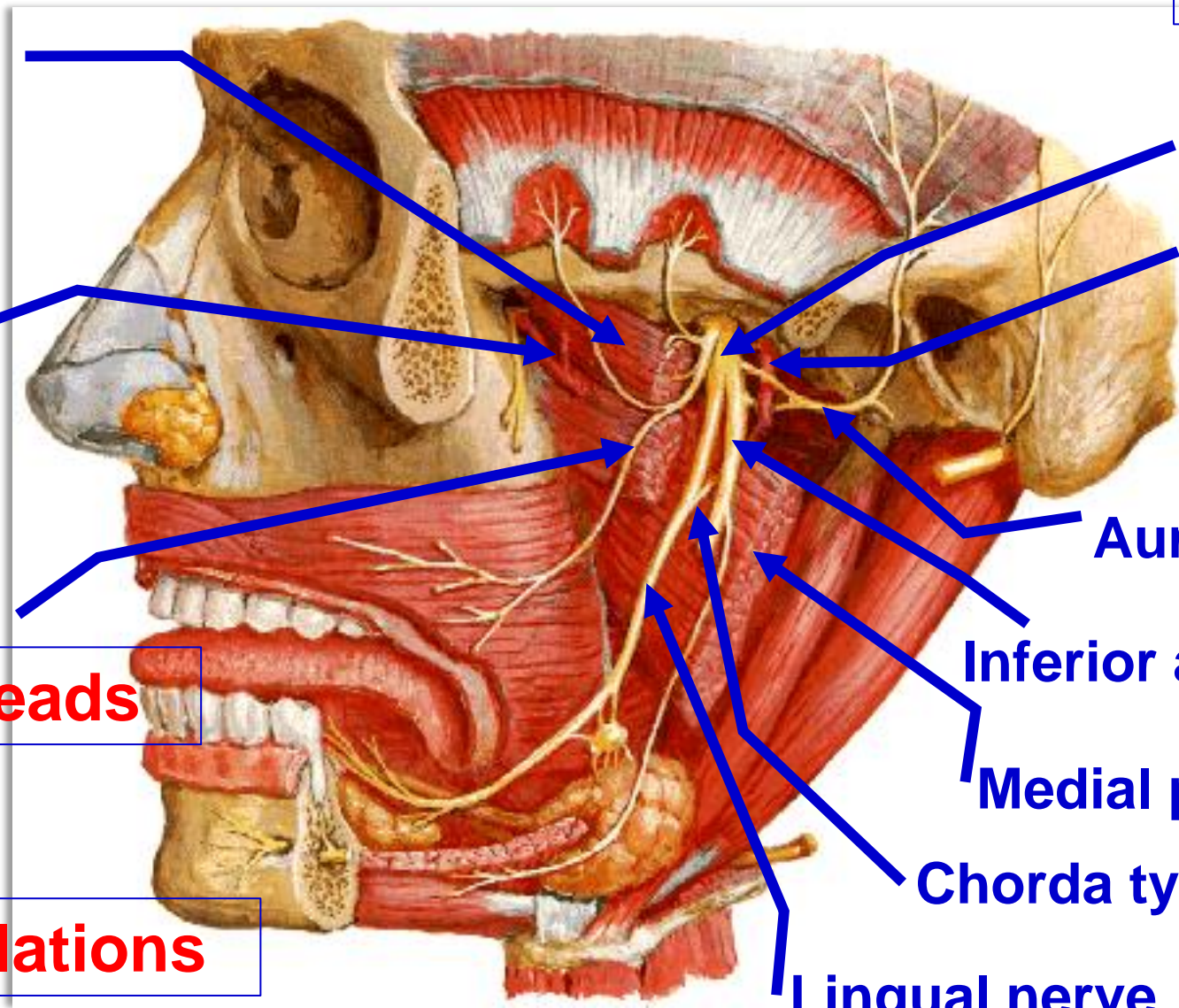
Direction of the fibres: downward, backward and lateral

Origin: Superficial head from maxillary tuberosity

- Actions of the muscles of mastication**

	Elevation (closing) Chewing	Depression (opening)	Protrusion	Retraction	Side to side movement
1- Masseter	+ve main		+ve		
2- Temporalis	+ve		+ve	+ve (posterior fibres)	
3- M. pterygoid	+ve		+ve		+ve
4- L. pterygoid		+ve	+ve		+ve

Deep Relations



Lateral pterygoid

Mandibular nerve

3rd part of Maxillary artery

Middle meningeal artery

Otic ganglion

Buccal nerve

Auriculotemporal nerve

Between 2 heads

Inferior alveolar nerve ★



Medial pterygoid muscle

Inferior Relations

Chorda tympani



Lingual nerve ★

★ 1st part of maxillary artery

2nd part of maxillary artery

dr_youssefhussein@yahoo.com

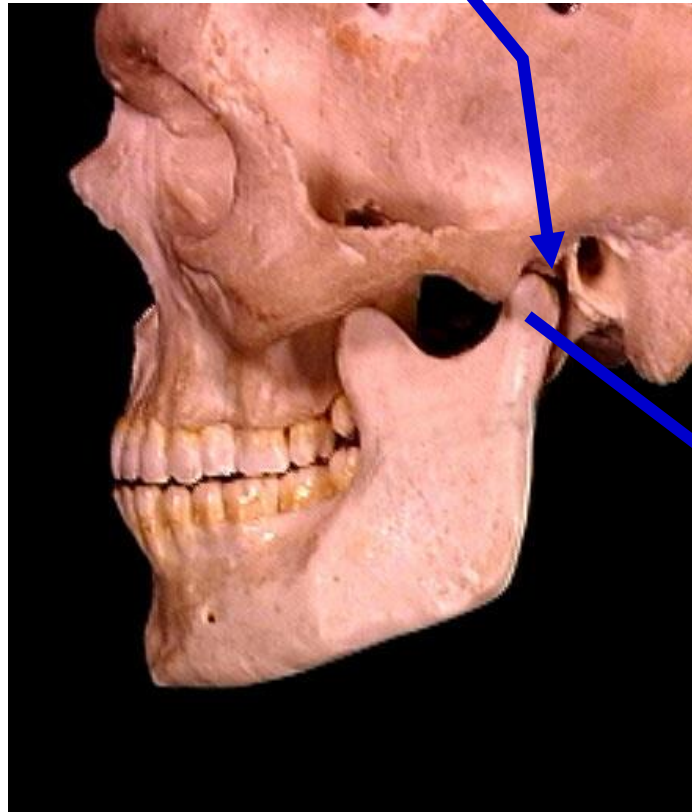
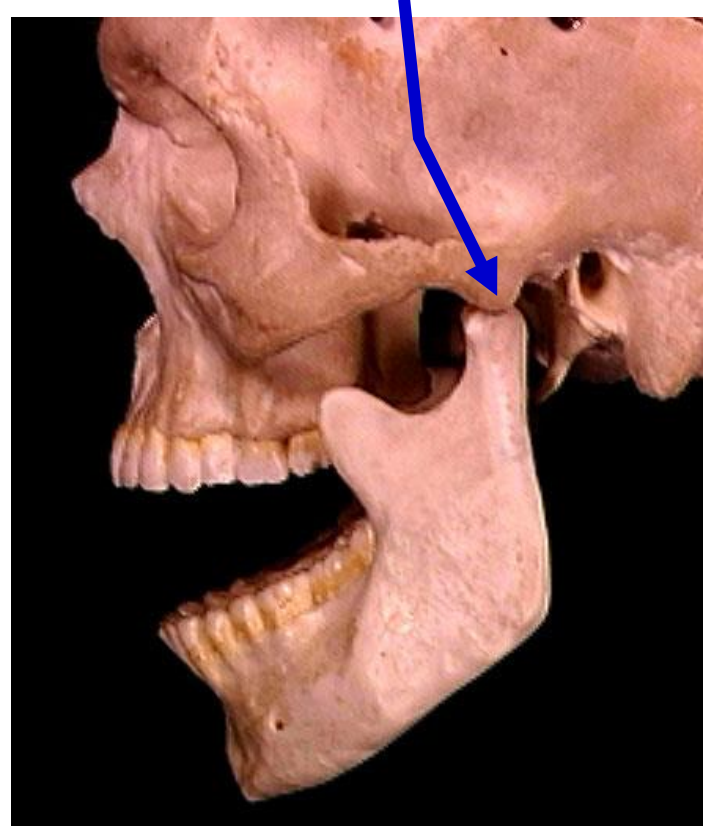
Temporomandibular joint

<https://www.youtube.com/@ProfDrYoussefHusseinAnatomy/playlists>

Type: synovial joint of **ellipsoid** variety

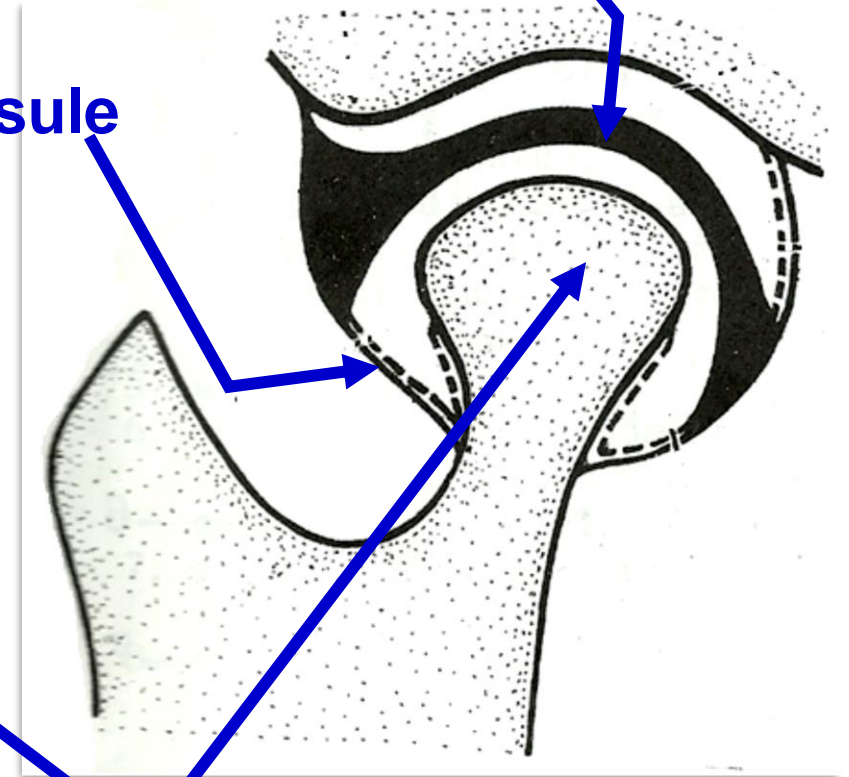
Articular tubercle

Mandibular fossa



Capsule

Articular disc



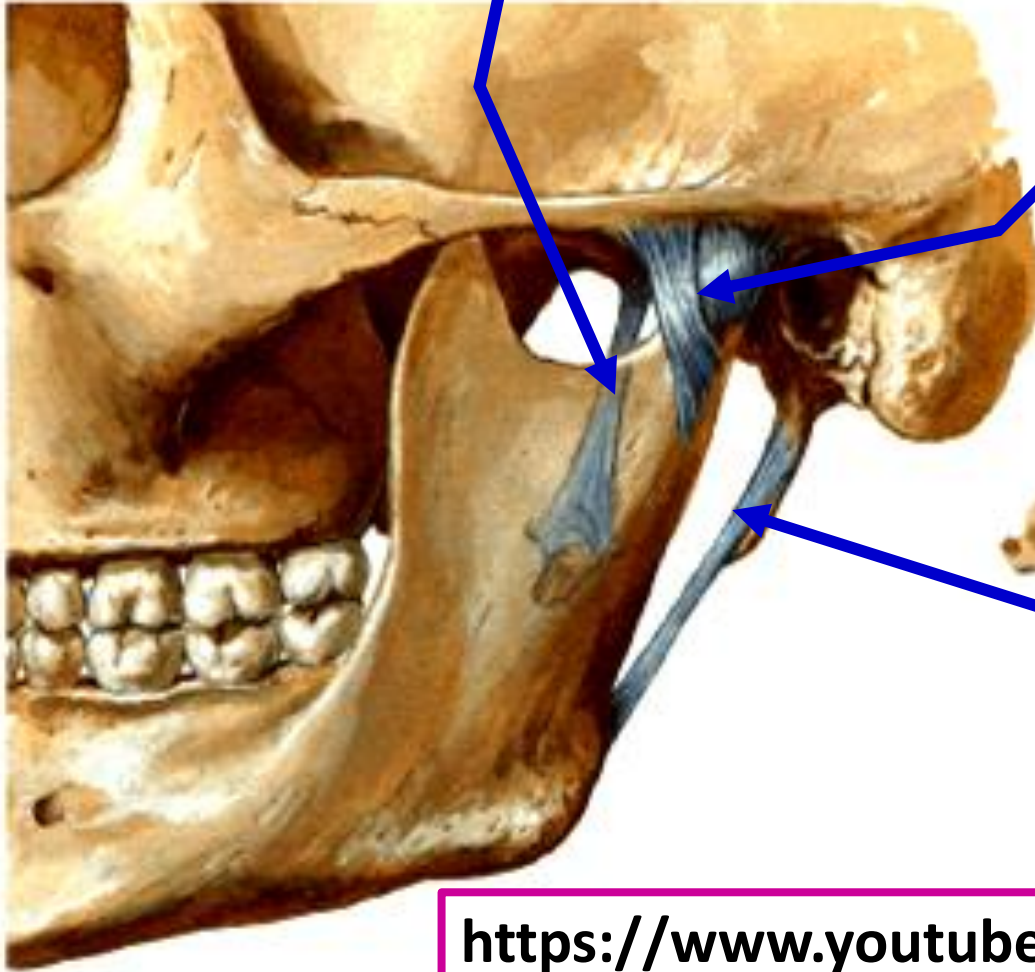
Head of mandible

dr_youssefhussein@yahoo.com

- **Articular surfaces:** a) Head (condyle) of the mandible.
b) Articular (glenoid) fossa and articular tubercle of temporal bone.
c) Articular disc divided the cavity into upper and lower parts.
- **Capsule:** attached around the articular surfaces. It is lined by synovial membrane.

Sphenomandibular ligament from spine of sphenoid to lingula

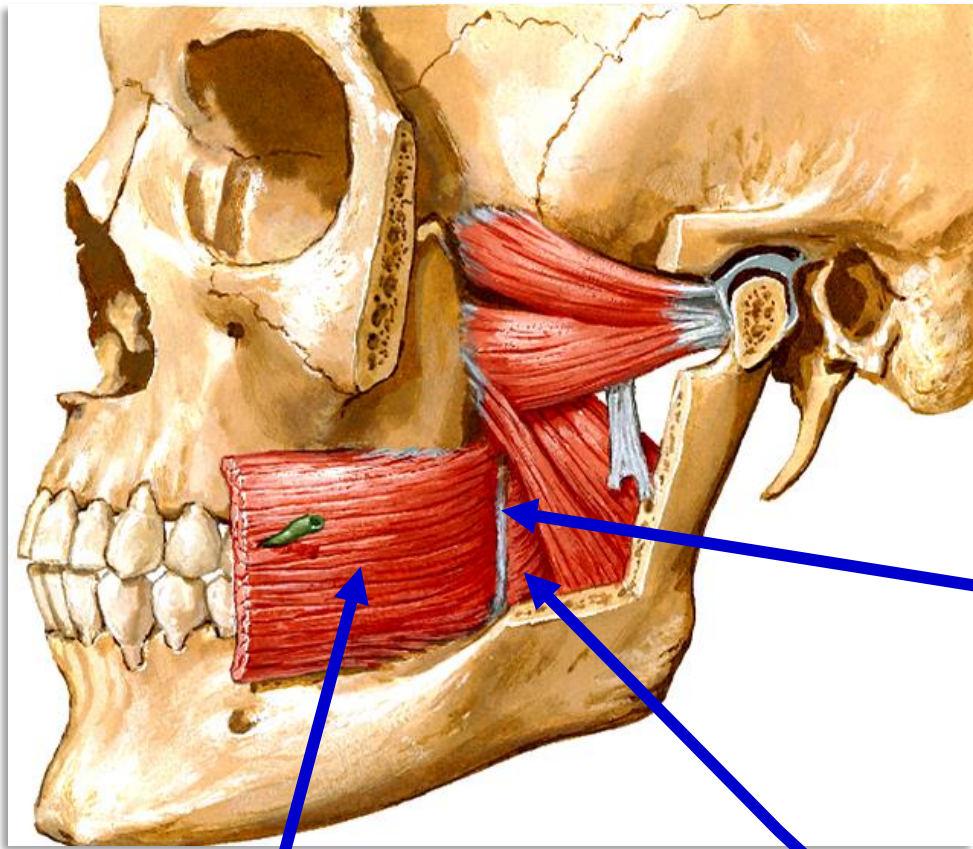
Tempromandibular ligament from articular eminence (root of zygomatic arch) to lateral side of neck of mandible



Stylomandibular ligament from styloid process to angle of mandible, separates parotid gland from submandibular gland

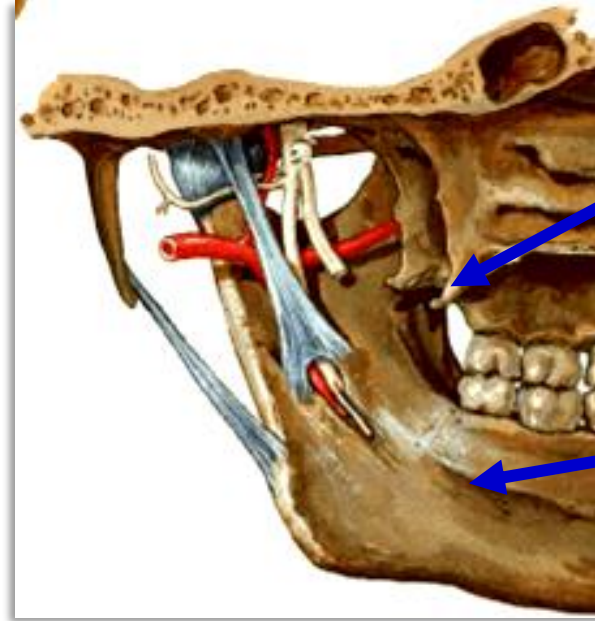
<https://www.youtube.com/@ProfDrYoussefHusseiniAnatomy/playlists>

Ligaments of temporomandibular joint



Buccinator

Superior constrictor
muscle of pharynx



Pterygoid
hamulus

Mylohyoid line

Pterygomandibular ligament: extends from **pterygoid hamulus** to the **posterior end of mylohyoid line** of mandible.

- It gives origin to buccinator and superior constrictor muscle of the pharynx.

dr_youssefhussein@yahoo.com

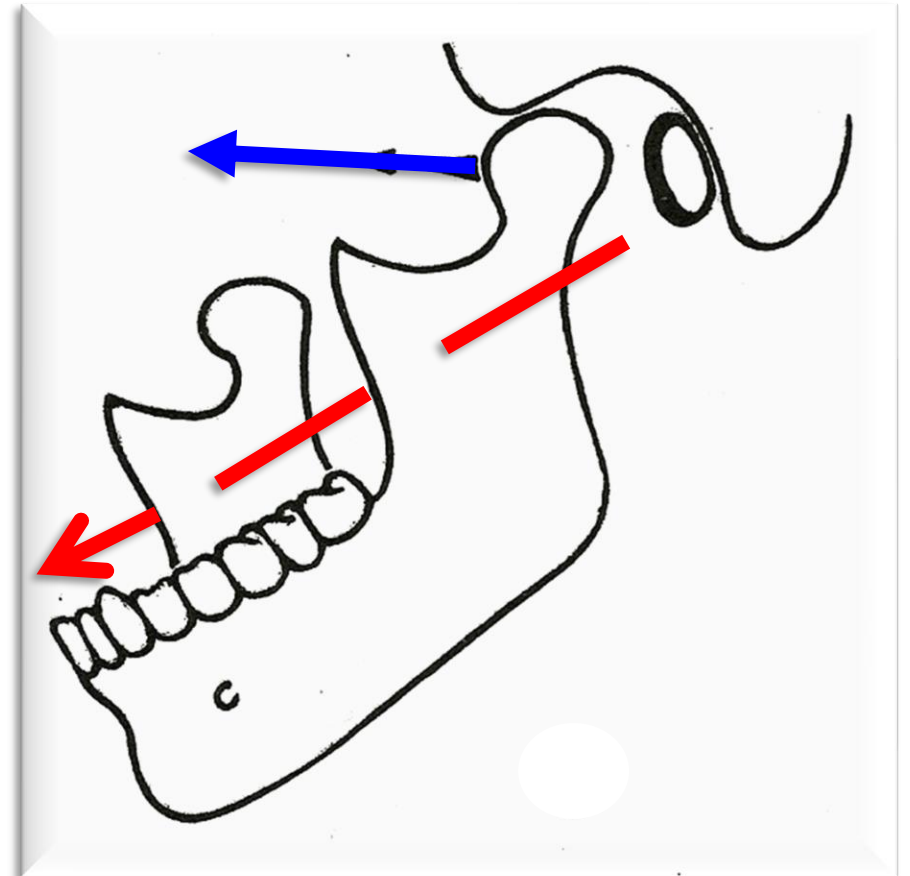
Ligaments of temporomandibular joint

❖ Movements of TMJ

	Elevation (closing) Chewing	Depression (opening)	Protrusion	Retraction	Side to side movement
1- Masseter	+ve main		+ve		
2- Temporalis	+ve		+ve	+ve (posterior fibres)	
3- M. pterygoid	+ve		+ve		+ve
4- L. pterygoid		+ve	+ve		+ve

- **Depression:** Lateral pterygoid, digastric, geniohyoid, mylohyoid and gravity.

- 1- Resting position**, the lower teeth are slightly behind the level of the upper teeth.
- 2- Closing position**, jaws are closed, the upper and lower teeth come into apposition.
- **Nerve supply**: 1) auriculotemporal nerve. 2) Masseteric nerve.
- **Arterial supply**, from the superficial temporal and maxillary arteries.
- **During opening of the mouth Forward sliding movement of the head of mandible with articular disc Over of the articular tubercle**
- **The axis of movement passes through the Mandibular foramen**



dr_youssefhussein@yahoo.com

- **TMJ dislocation**

- **Causes**, spontaneous or traumatic.
- It occurs when **one or both mandibular condyles** are displaced in front and above articular eminence outside the articular surfaces.
- Dislocation may be **reducible** if the condyle (head of mandible) returns spontaneously to the mandibular (glenoid) cavity (**subluxation**) or **irreducible** when one or two condyles remain dislocated (**luxation**).
- In the latter condition, the mouth remains open
- There are stretch of the ligaments and muscles causing intense **local orofacial pain**

<https://www.youtube.com/@ProfDrYoussefHusseinAnatomy/playlists>

<https://www.youtube.com/@ProfDrYoussefHusseinAnatomy/playlists>



يُمنع أخذ السلايدات بدون
إذن المحرر واي اجراء
يخالف ذلك يقع تحت
طائلة المسؤولية القانونية

Thank You

Questions

اليوتيوب د. يوسف حسين

Prof. Dr. Youssef Hussein Anatomy - YouTube