

وسهلا



أهلا

يُمنع أخذ السلايدات بدون
إذن المحرر واي اجراء
يخالف ذلك يقع تحت طائلة
المسؤولية القانونية
جميع المعلومات للاستخدام
التعليمي فقط

الأستاذ الدكتور يوسف حسين

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

رئيس قسم التشريح والأنسجة والأجنة - كلية الطب - جامعة مؤتة - الأردن

دكتورة من جامعة كولونيا المانيا

جروب الفيس د. يوسف حسين (استاذ التشريح)

الواتس 00201224904207

اليوتيوب د. يوسف حسين

Prof. Dr. Youssef Hussein Anatomy - YouTube

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

dr_youssefhussein@yahoo.com

Muscles of mastication

اليو تيوب د. يوسف حسين

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

Muscles of mastication

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

They include **4 muscles**:

1) Temporalis

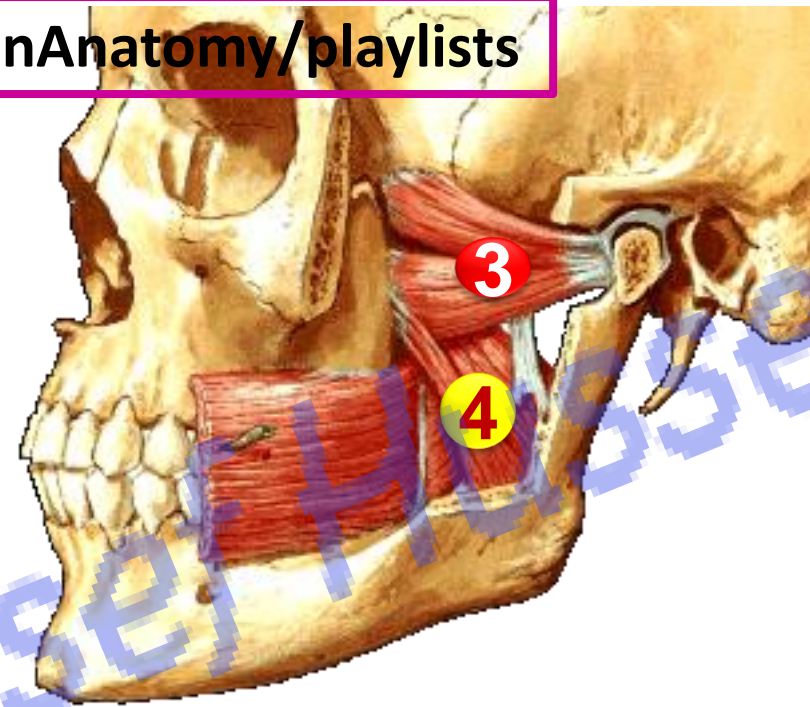
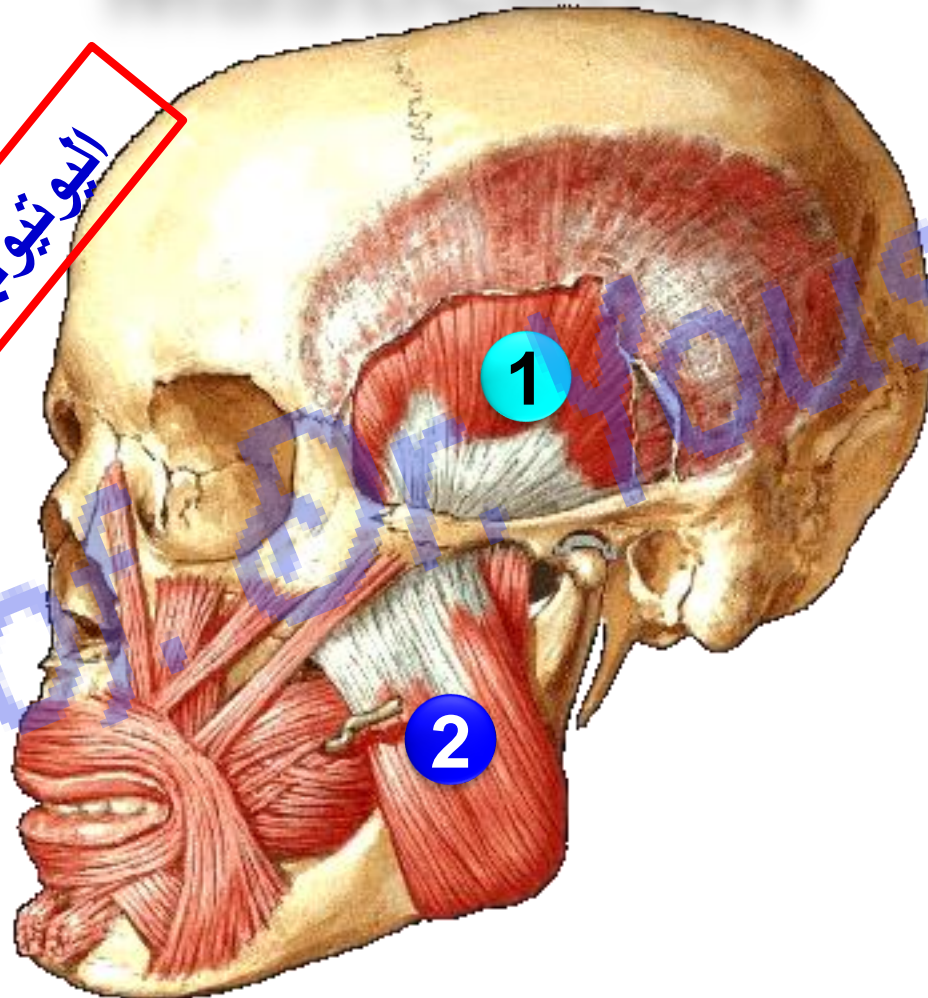
2) Masseter.

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

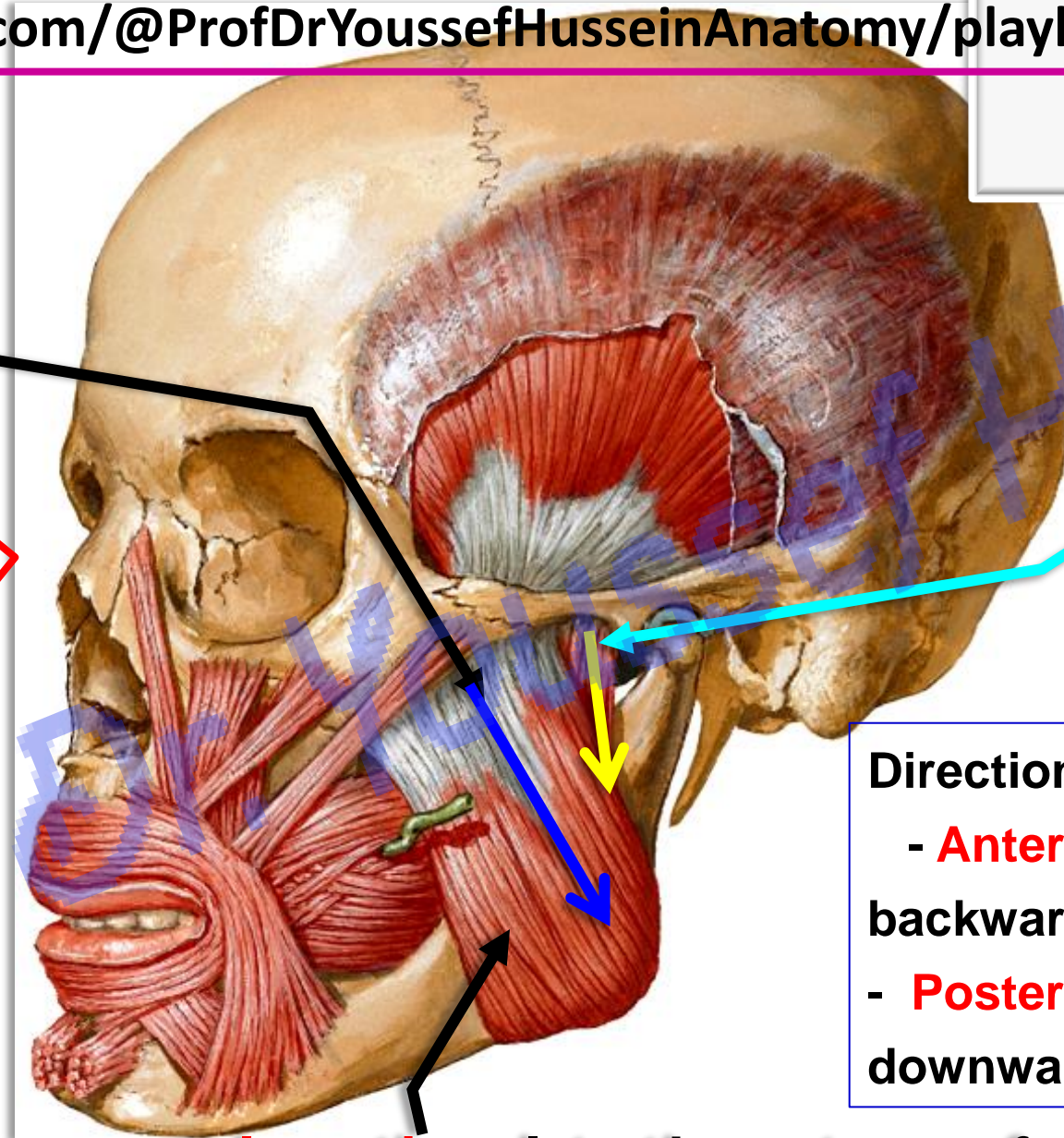
Origin: Superficial fibers from lower border zygomatic arch

Origin: Deep fibers from deep surface of zygomatic arch

Direction of the fibres:

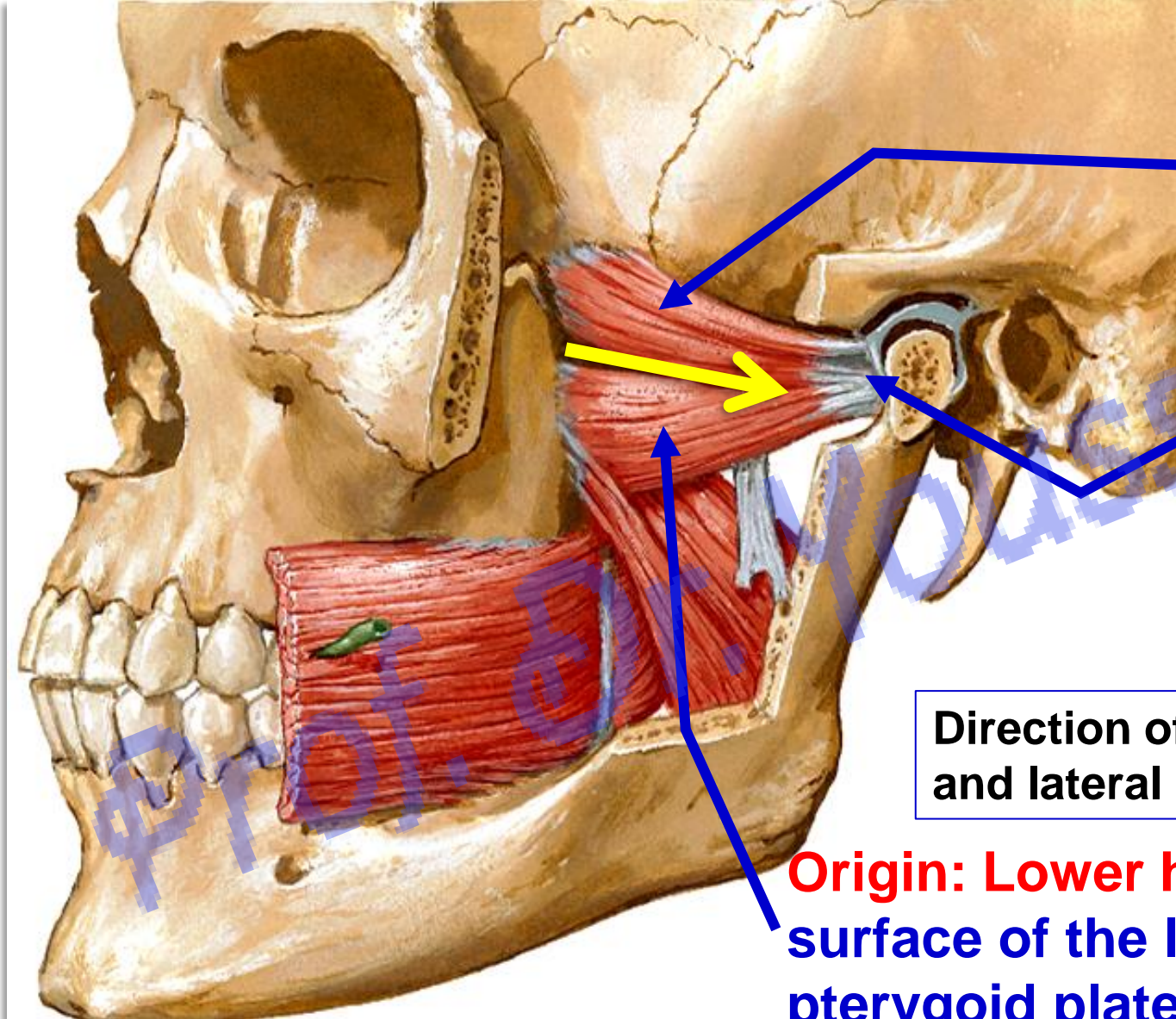
- **Anterior** directed downwards and backwards.
- **Posterior** directed vertically downwards.

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



البيوتوب د. يوسف حسين

Lateral Pterygoid muscle



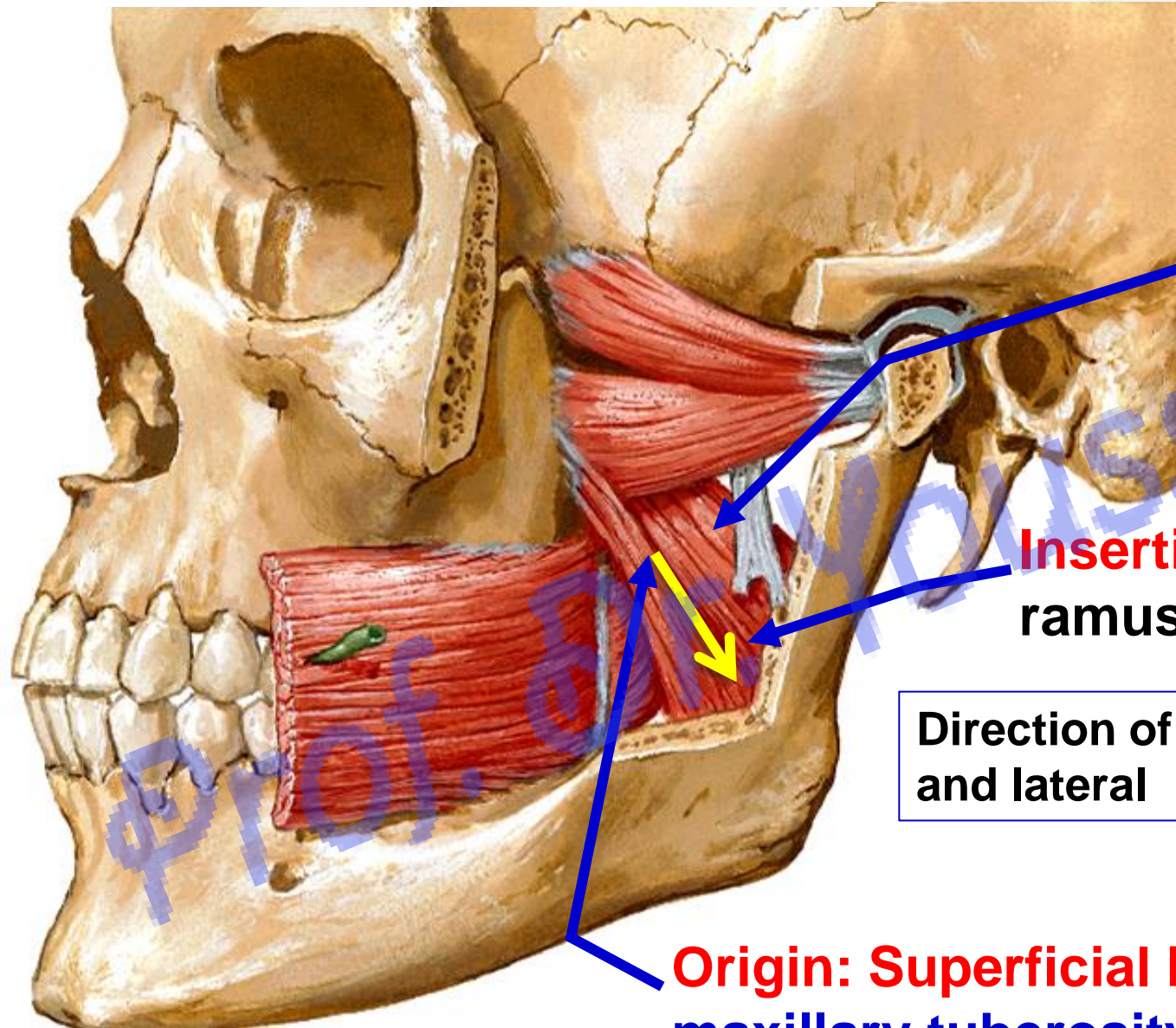
Origin: Upper head from infratemporal surface of greater wing of sphenoid

- **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

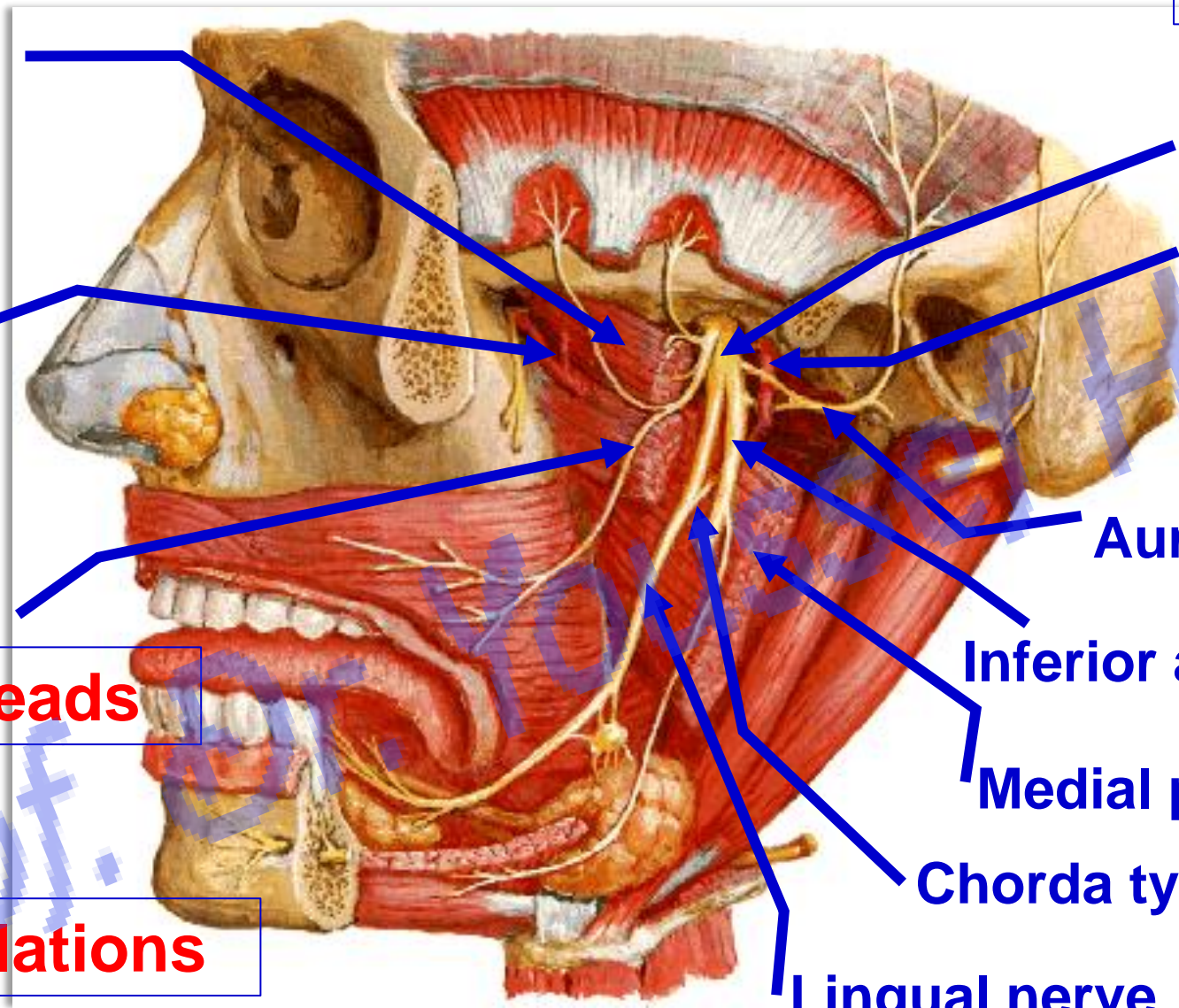
Direction of the fibres: downward, backward and lateral

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

3rd part of Maxillary artery

Buccal nerve

Mandibular nerve

Middle meningeal artery

Otic ganglion

Auriculotemporal nerve

Inferior alveolar nerve ★

Medial pterygoid muscle

Chorda tympani

Lingual nerve ★

Between 2 heads

Inferior Relations

★ 1st part of maxillary artery

2nd part of maxillary artery

dr_youssefhussein@yahoo.com

Temporomandibular joint

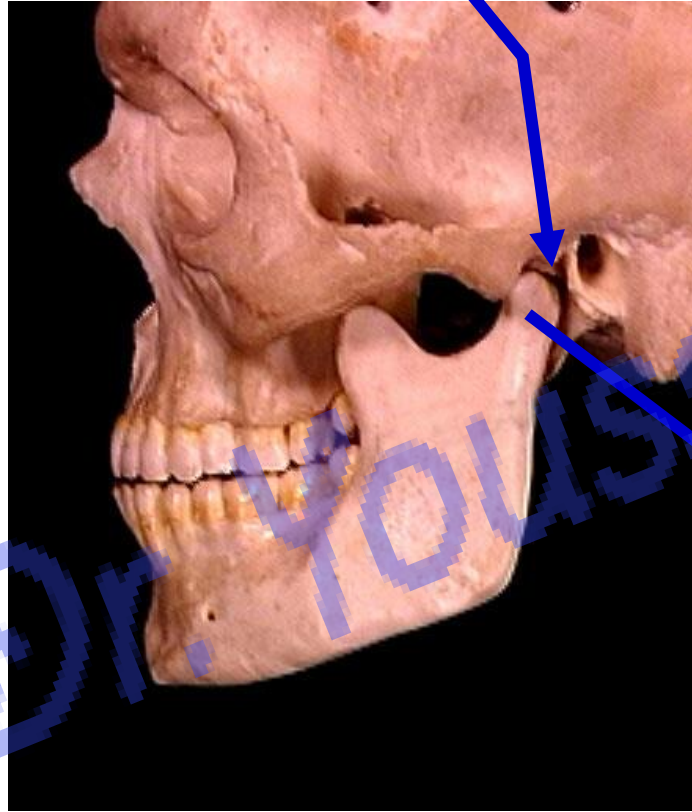
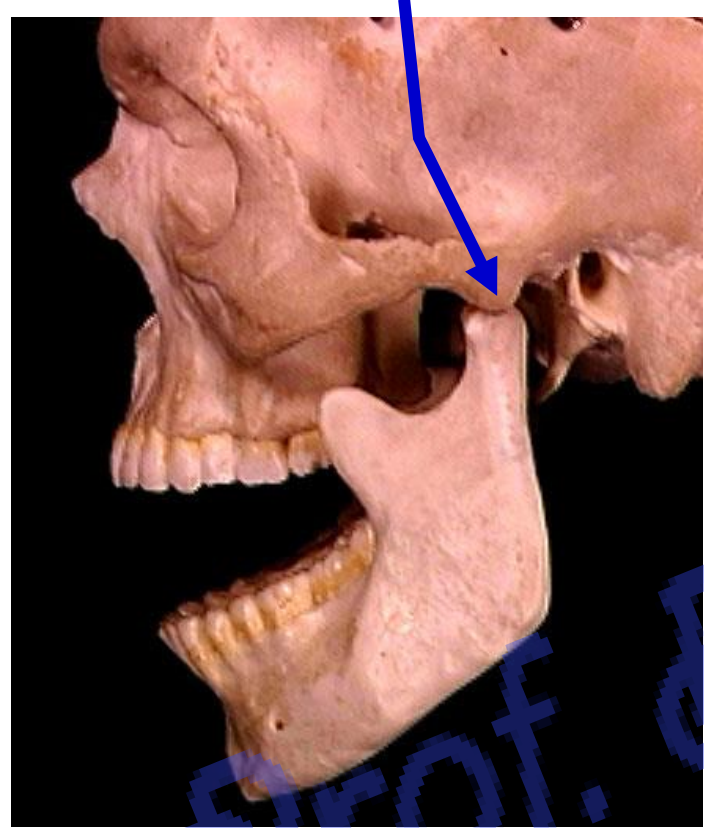
prof. Dr. Youssef Hussein

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

Type: synovial joint of **ellipsoid** variety

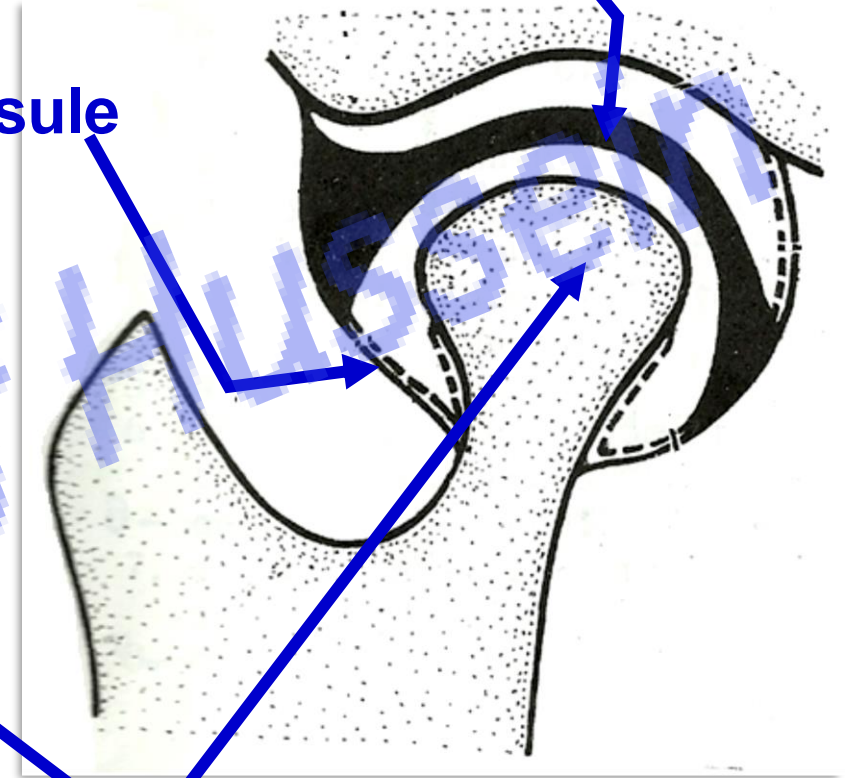
Articular tubercle

Mandibular fossa



Capsule

Articular disc



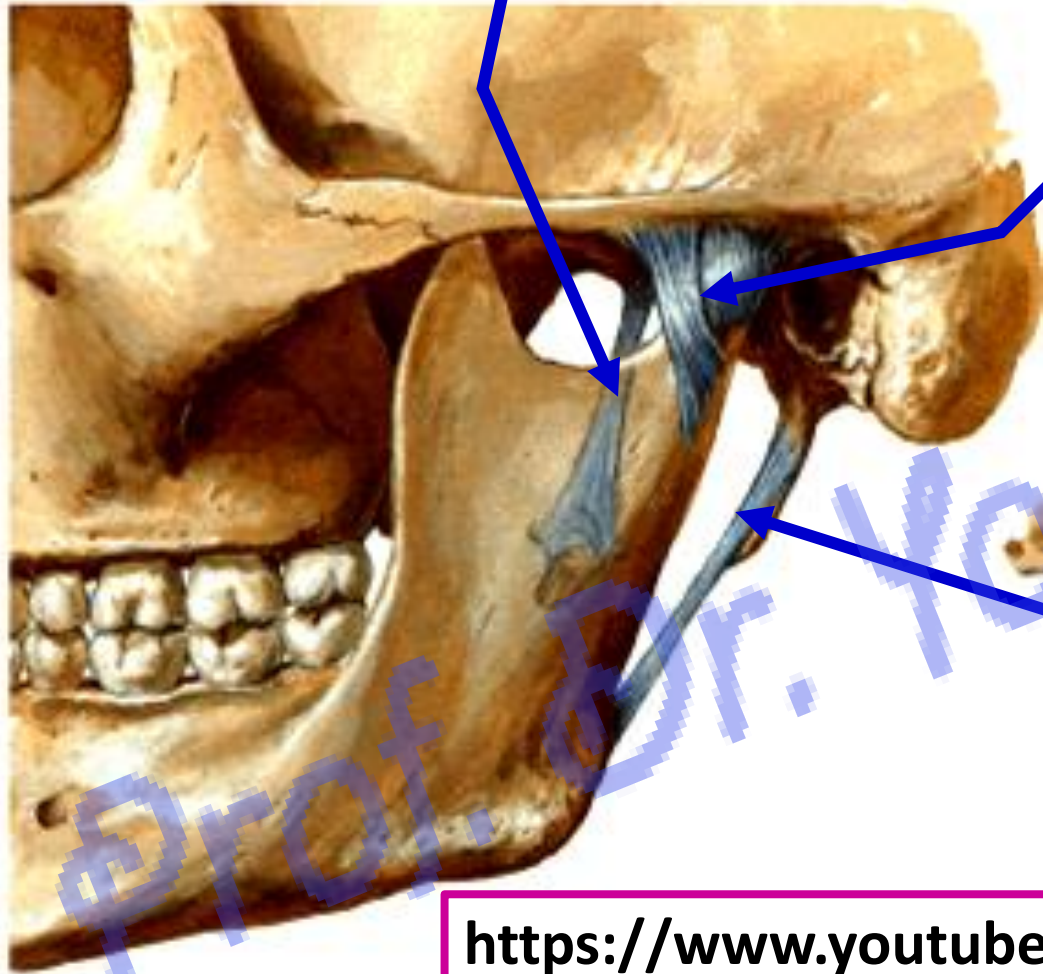
Head of mandible

- **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.

dr_youssefhussein@yahoo.com

2- Sphenomandibular ligament from spine of sphenoid to lingula

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

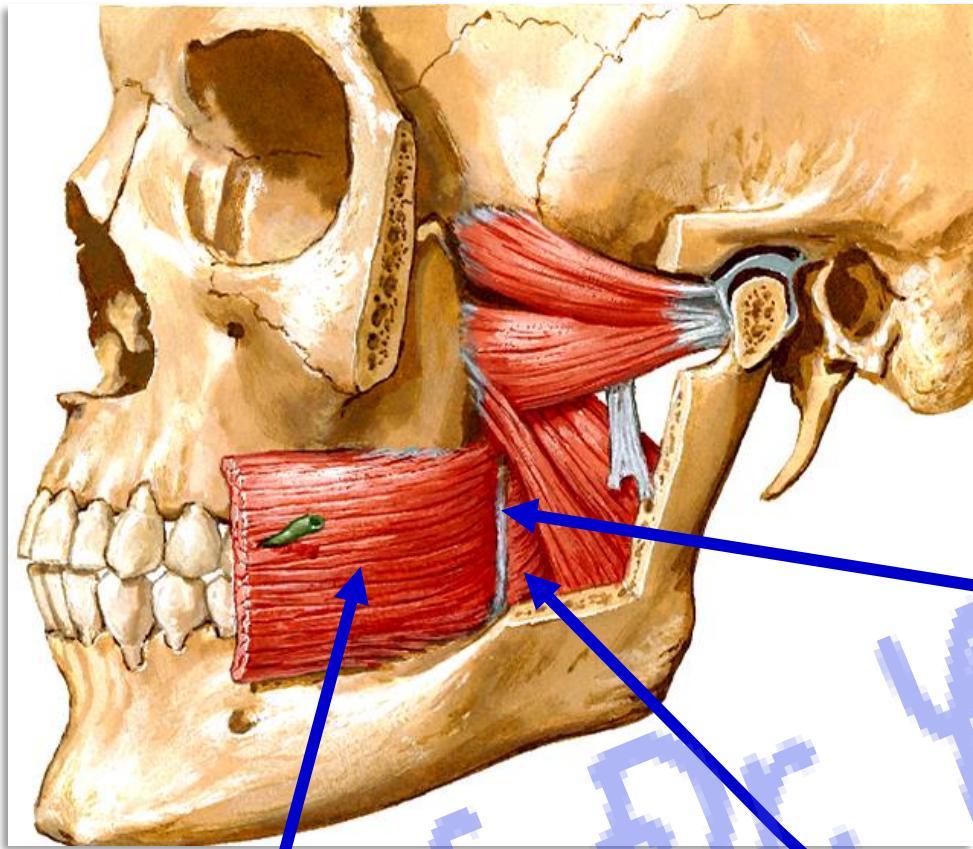


1- Stylomandibular ligament from styloid process to angle of mandible, separates parotid gland from submandibular gland

اليوتيوب د. يوسف حسين

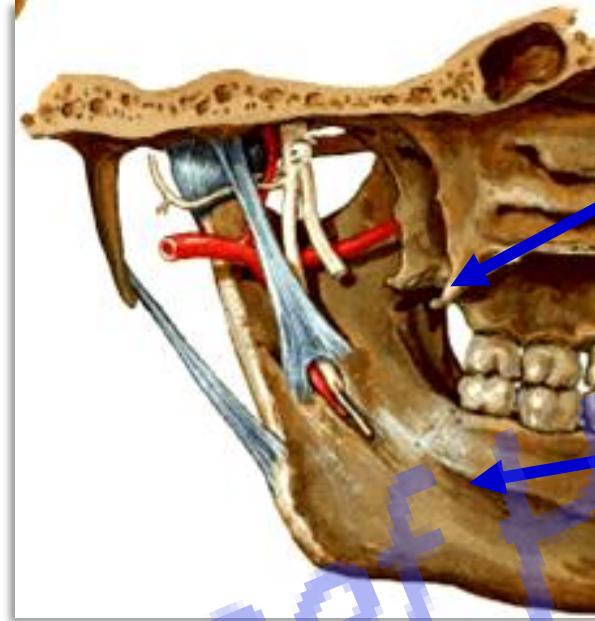
<https://www.youtube.com/@ProfDrYoussefHusseinAnatomy/playlists>

Ligaments of temporomandibular joint



Buccinator

Superior constrictor muscle of pharynx



Pterygoid hamulus

Mylohyoid line

4- 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

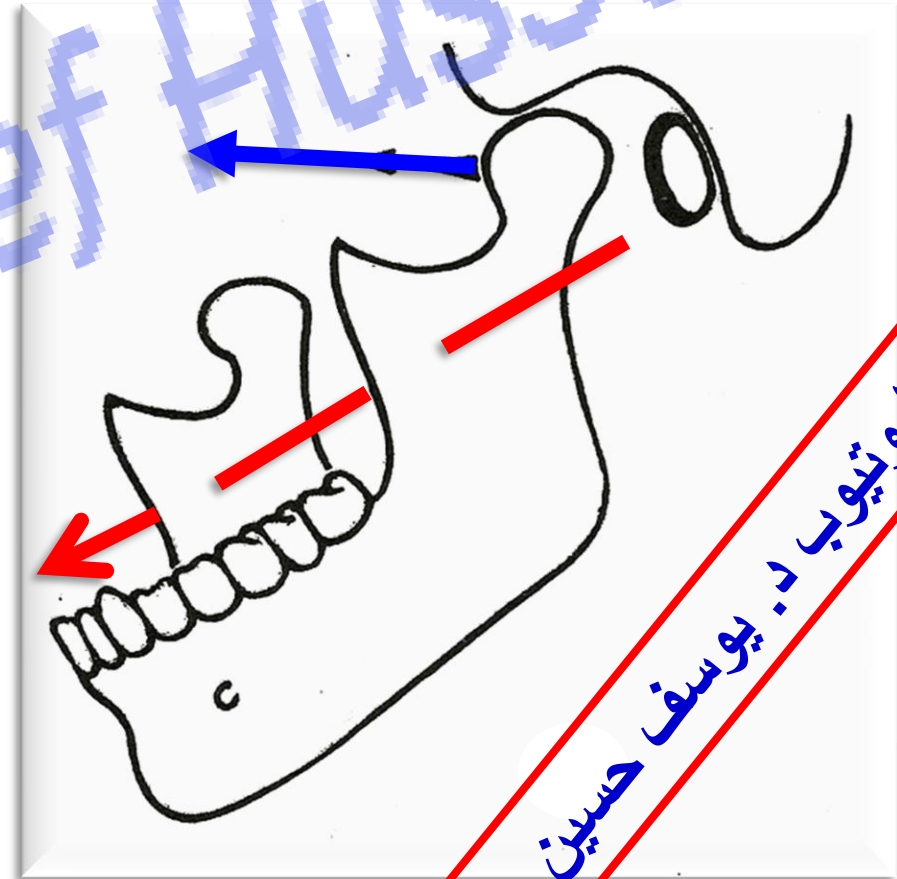
- **Depression:** Lateral pterygoid, digastric, geniohyoid, mylohyoid and gravity.

- 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 foramina**



الـيـوسـفـ حـسـيـن
د. يـوسـفـ حـسـيـن

dr_youssefhussain@yahoo.com

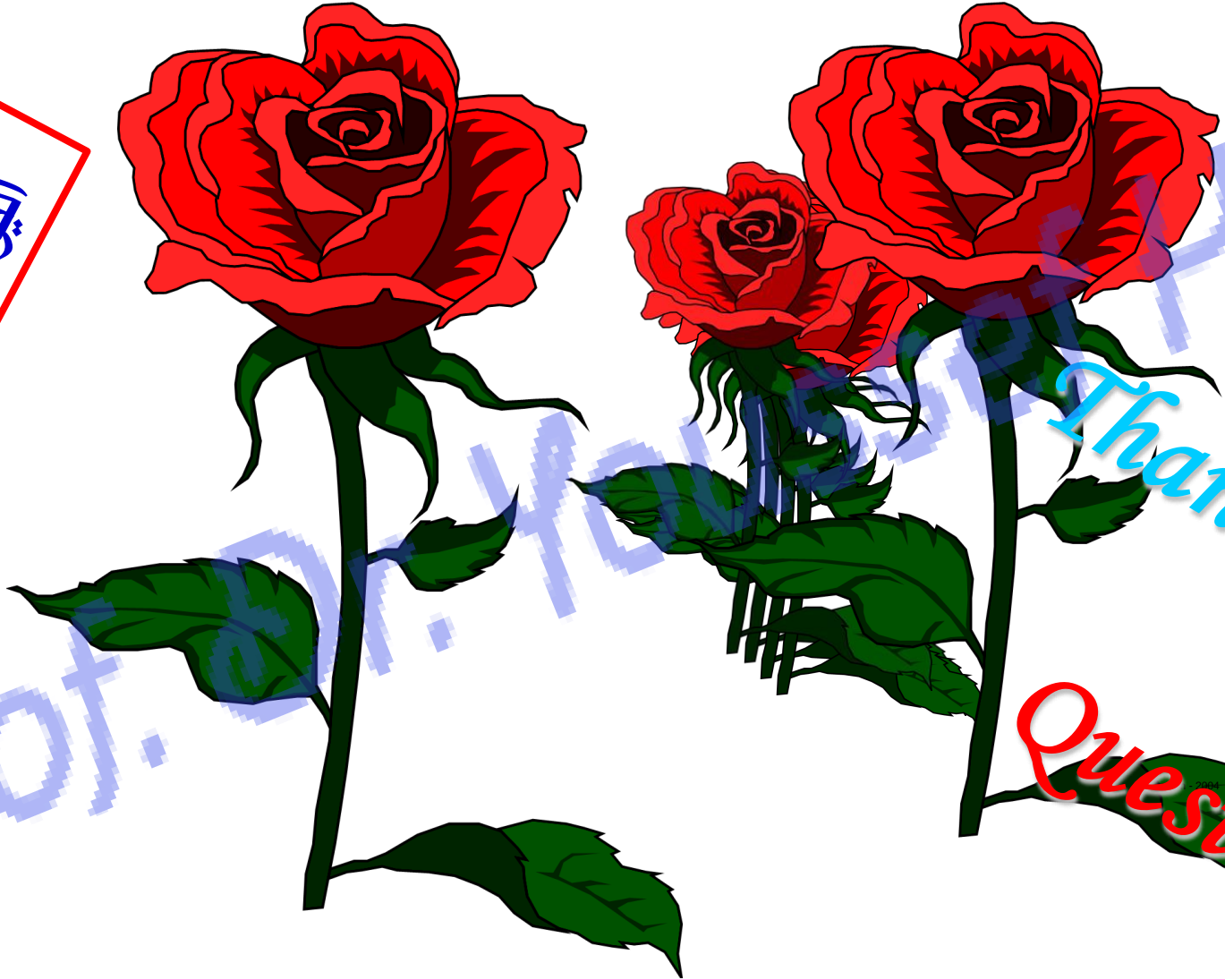
- TMJ dislocation

- **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/channel/UCVSNqbibj9UWYaJdd_cn0PQ

يُمنع أخذ السلايدات بدون
إذن المحرر واي اجراء
يخالف ذلك يقع تحت طائلة
المسؤولية القانونية
جميع المعلومات للاستخدام
التعليمي فقط

اليوتيوب د. يوسف حسين



Thank You

Questions

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