

Anatomy

HAYAT BATCH

done by : Rama Alwraikat

lecture no : Lec 8
(Muscles of Head)



General Anatomy

Lecture 8: Muscles of Head

Dr. Ashraf Ramzy
Professor of Anatomy & Embryology
ash-ramzy@hotmail.com

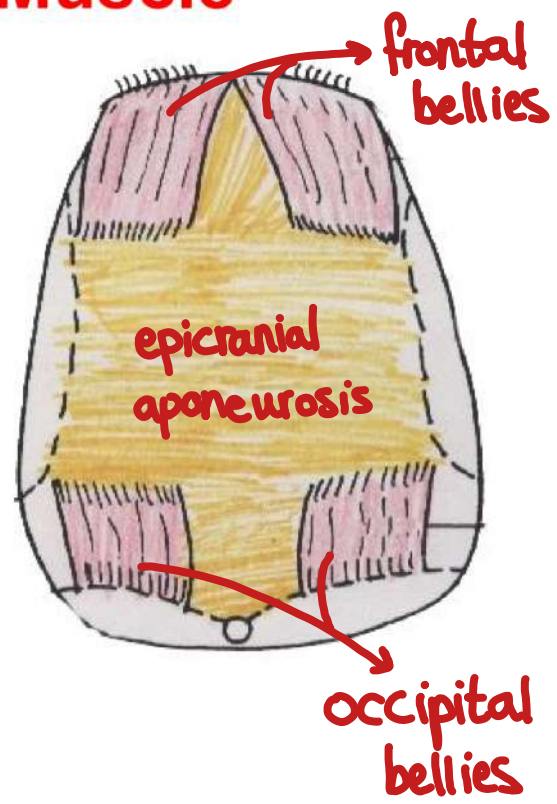
Muscles of Scalp

مؤدة الرأس

Occipito-frontalis Muscle

- * Scalp has only ONE muscle which is the **occipito-frontalis muscle**.
- * It is formed of **2 frontal bellies** and **2 occipital bellies** which are inserted in the epicranial aponeurosis.
- * **Epicranial Aponeurosis:**
 - * A sheet of strong fibrous tissue on the skull cap. (upper part of the skull)
 - * Receives the insertion of the frontal and occipital bellies.

منذ



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2 frontal bellies $\xrightarrow{\text{عند}}$ fronta bone
2 Occipital bellies $\xrightarrow{\text{عند}}$ Occipital bone

Norma Lateralis

الحاجب

* **Frontal bellies** → take origin from eyebrows & are inserted in epicranial aponeurosis.

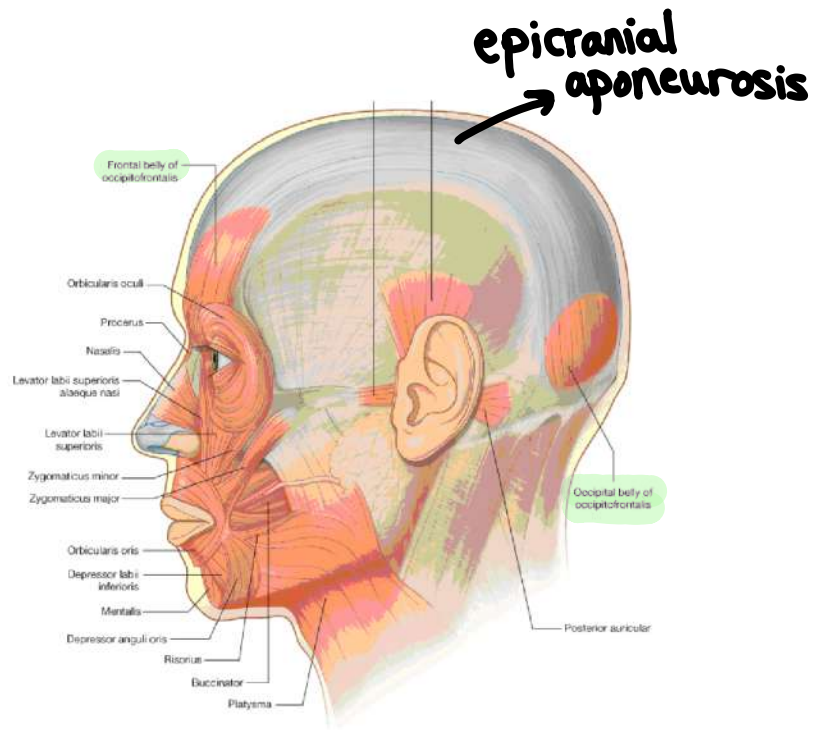
* **Occipital bellies** → take origin from occipital bone & are inserted in epicranial aponeurosis.

الجبنة

* **Action of muscle:** Pull the scalp backwards and raise the eyebrows thus causing the transverse wrinkles of forehead (giving expression of fear or surprise).

* **Nerve supply:** Facial nerve.

↓
cranial nerve
↓ مسؤول عن
facial expressions



Action of muscles → when the muscle contracts → will be short

Muscles of Face

Muscles of Facial Expressions

@ General characteristics :

1. All the muscles : arise from the bones of the skull or subcutaneous tissue. → **origin**
2. All the muscles : are inserted into the skin.
3. Action : they move the skin of face in the different facial expressions (therefore called **muscles of facial expressions**).
4. Nerve supply : all are supplied by the **Facial Nerve**.



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Subcutaneous tissue → نسيج تحت الجلد
 skin → نعت

Muscles of Face (contd)

5. Site : lie in the superficial fascia and there's no deep fascia in the face. (i.e. they lie subcutaneous). → نعت الجلد

6. They serve 2 main functions:

a. They act as sphincters or dilators to the orifices in face which are : فتحات → بفتح → بفتح

@ Orbit (guarded by eyelids).

@ Nose (guarded by nostrils).

@ Mouth (guarded by lips). → يتحكم بها

b. Facial expressions and help in speaking & mastication. → المضغ



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Under the skin → superficial fascia → fat → دهنية
 → deep fascia → fibrous membrane

(A) Orbital Group (Muscles of Orbit & Eyelids)

Orbicularis Oculi

* This is the sphincter of the eyelids (i.e. closes the eyes).
ضفحة العين

الخصون

* It encircles the orbital opening.
تضييق

* It consists of 3 parts :

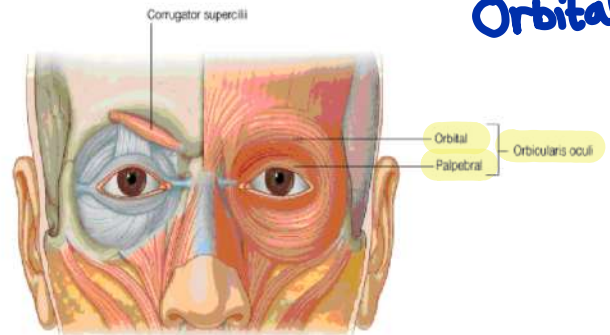
a. Palpebral part:

دقيقة

Action: gentle closure of eyelids (during sleeping & blinking → helps in flow of tears).
المسقى

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*تدفق الدموع وتجميعها
تساعد في الحماية*



Oculi → eye
Orbicularis
↓
Orbitals *مطرات*

Palpebral → eyelid
جفن

b. Orbital part:

قوية

* Action : firm closure of eyelids (for protection from dust & light).

Lacrimal → دموع

c. Lacrimal part:

* A small part which lies medially.
يوسع

* Action: Dilates the lacrimal sac to help drainage of tears. *to nose*
تجمع

medially → lacrimal sac
Laterally → lacrimal gland

* Nerve supply of Orbicularis Oculi muscle: **Facial N.**

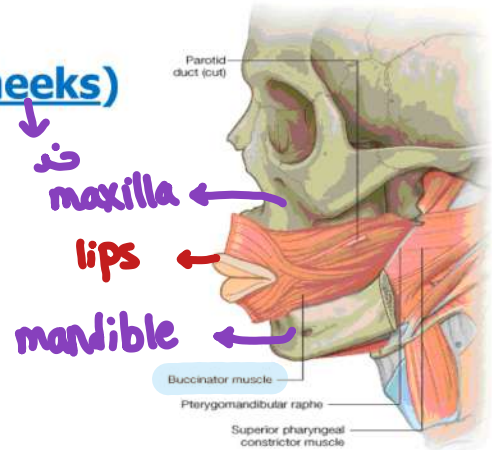
(B) Oral Group
(Muscles of Lips and Cheeks)

(1) Buccinator

- * It is the muscle of the cheeks.
- * **Origin** : from maxilla & mandible.
- * **Insertion**: in lips.
- * **N. supply** : Facial N.
- * **Action** :

1. Prevents the accumulation of the food in the vestibule of the mouth (by pressing cheeks against teeth).
2. Whistling (buccina = trumpet) and blowing of air.
3. Suckling (in babies).

Vestibule of the mouth → space between cheeks & teeth in oral cavity



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(2) Orbicularis Oris

- * It is the sphincter muscle of the lips (approaches lips together & help in whistling & speech).
- * It is a circular muscle around the mouth (forming ellipse around the mouth).

@ It is formed of 4 quadrants : upper right, lower right, upper left and lower left.

Upper right / Upper Left → السفة العليا

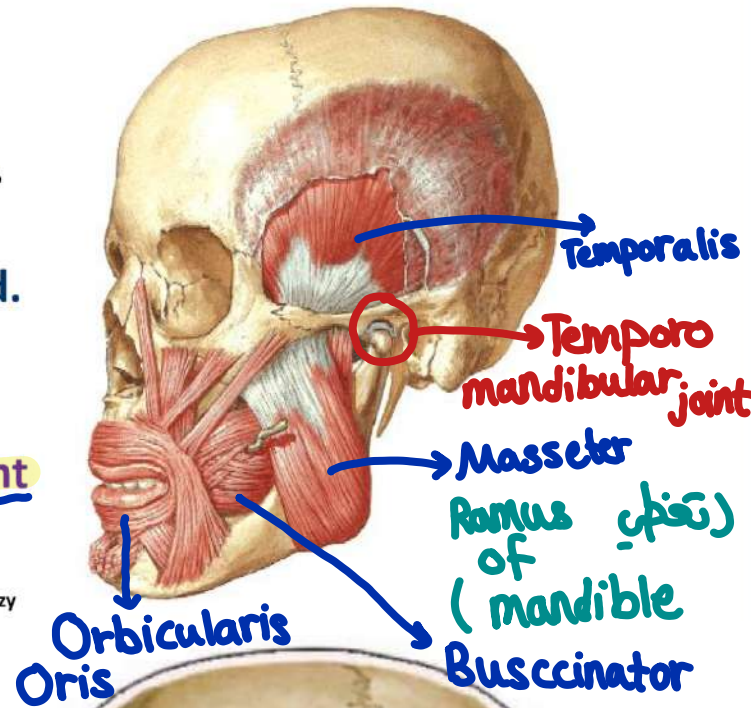
Lower right / Lower Left → السفة السفلى



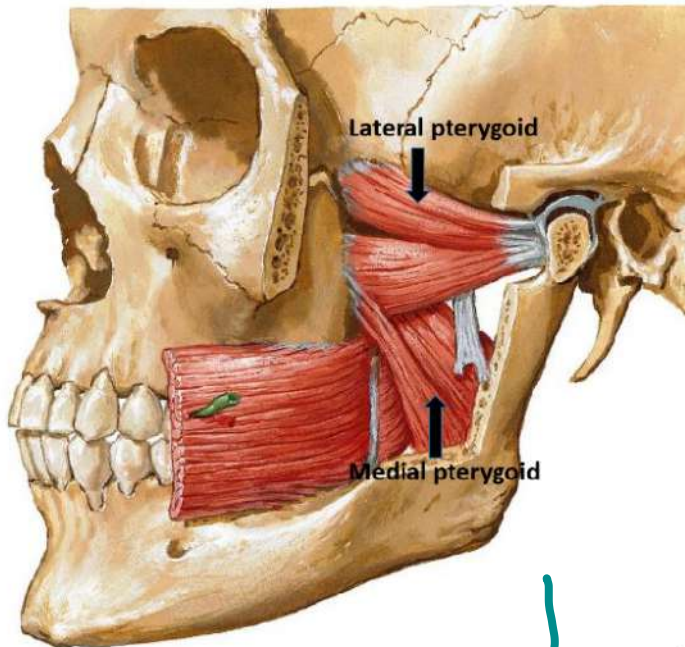
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Muscles of Mastication → **المضغ**

- * These are 4 muscles which arise from the skull. → **origin**
- * All are inserted into the mandible.
- * They are : **Temporalis**, **Masseter**, **Medial pterygoid** & **Lateral pterygoid**.
- * They are all supplied by the **mandibular nerve**.
- * All act on temporo-mandibular joint (TMJ).

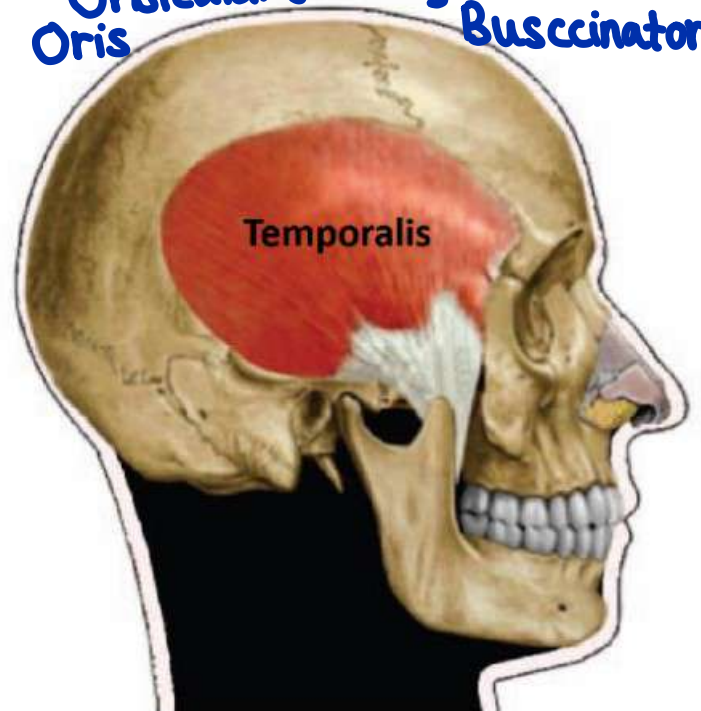


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↓
mandible **لو كسرتا**



ACTION OF MUSCLES OF MASTICATION

- ① ALL MUSCLES OF MASTICATION → ELEVATE THE MANDIBLE TO CLOSE THE MOUTH, EXCEPT LATERAL PTERYGOID WHICH DEPRESSES THE MANDIBLE TO OPEN THE MOUTH. ↑ ترفع
↓ تخفیف
- ② ALL MUSCLES OF MASTICATION PROTRUDE THE MANDIBLE, EXCEPT TEMPORALIS WHICH RETRACTS THE PROTRUDED MANDIBLE. (protraction)
(Retraction)

Extraocular Muscles (Muscles of eyeball)

عین خارج
مردة العين

عضلات خارج كرم العين

* We have 7 extraocular muscles:

- * They lie outside the eyeball.
- * They are responsible for the movements of the eyeball.
- * They include:

A. 4 recti muscles:

1. Superior rectus.
2. Inferior rectus.
3. Medial Rectus.
4. Lateral rectus.

Recti → Rectus صم مستقیم

B. 2 oblique muscles:

1. Superior oblique.
2. Inferior oblique.

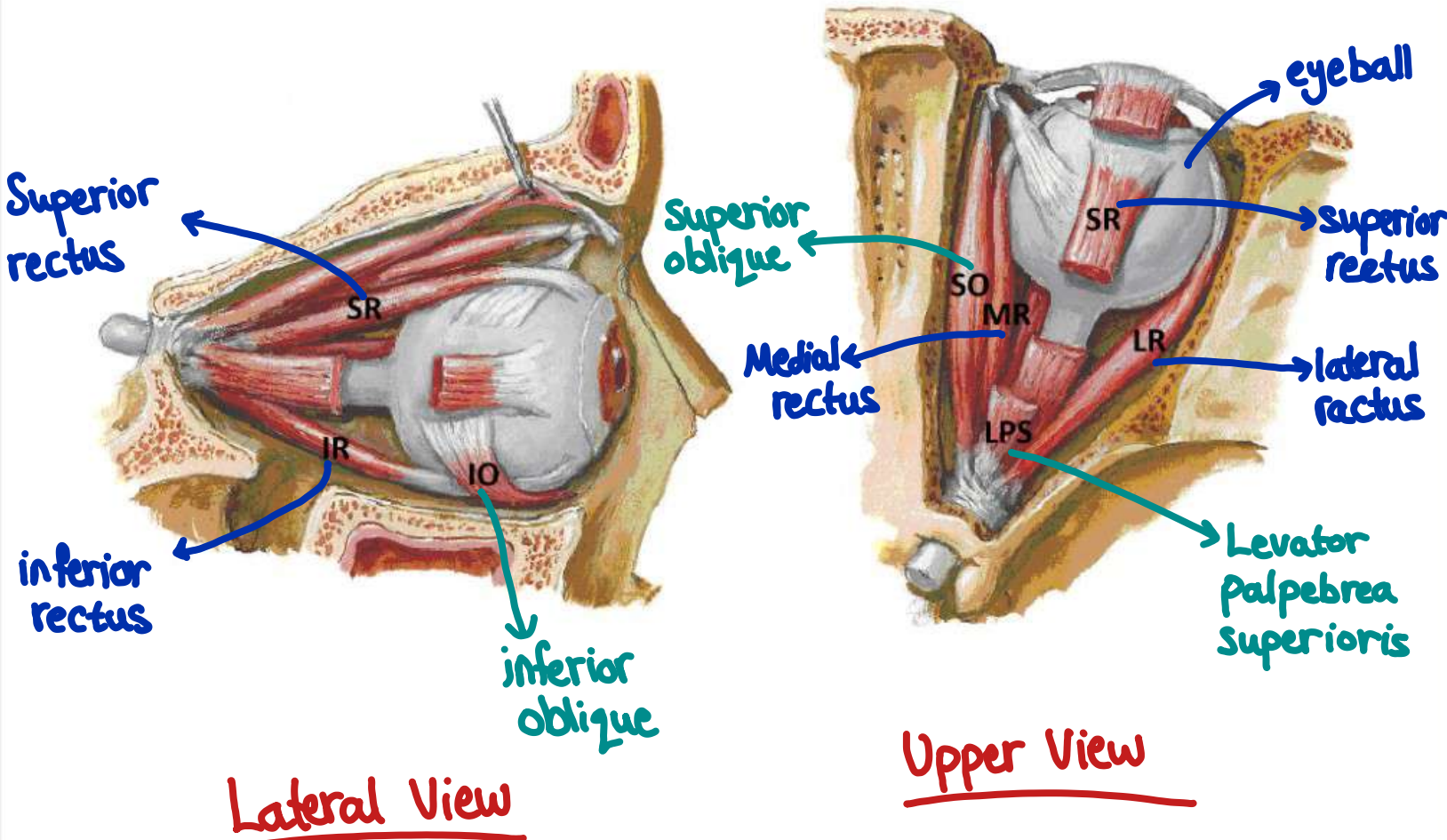
C. Levator palpebrae superioris.

رافعة الجفن العلوي
eyelids
superior

N.B.: All the 7 extraocular muscles are supplied by the Oculomotor N. (3rd cranial nerve) EXCEPT:

1. Lateral rectus (**LR6**): Abducent N. (6th cranial nerve).
2. Superior oblique (**SO4**): Trochlear N. (4th cranial nerve).

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قليلًا مِنَ التَّفَاوُلِ يَصْنَعُ أَلْفَ طَرِيقٍ نَحْوِ السَّعَادَةِ..
بالتوفيق



#النادي_الطبي
#معكم_خطوة_بخطوة