

Anatomy

HAYAT BATCH

done by : Rama Alwraikat

lecture no : Lec 9 (muscles of neck)



General Anatomy

Lecture 9: Muscles of Neck

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A. Sternomastoid muscle

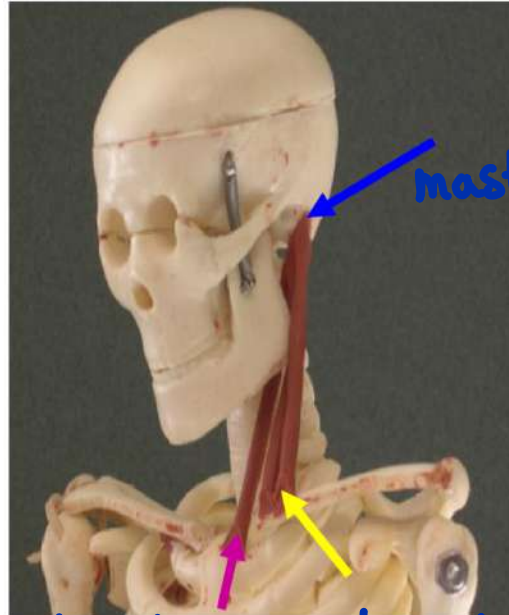
or sternocleidomastoid
لغزني

* Origin : Has two heads?

** Sternal head →
front of manubrium
sterni.

** Clavicular head →
medial 1/3 of
clavicle.

* Insertion : mastoid
process.



Sternal
Head

Clavicular Head

Mastoid
process

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* **Nerve supply:** Spinal accessory N. (11th cranial nerve).

* **Action :**

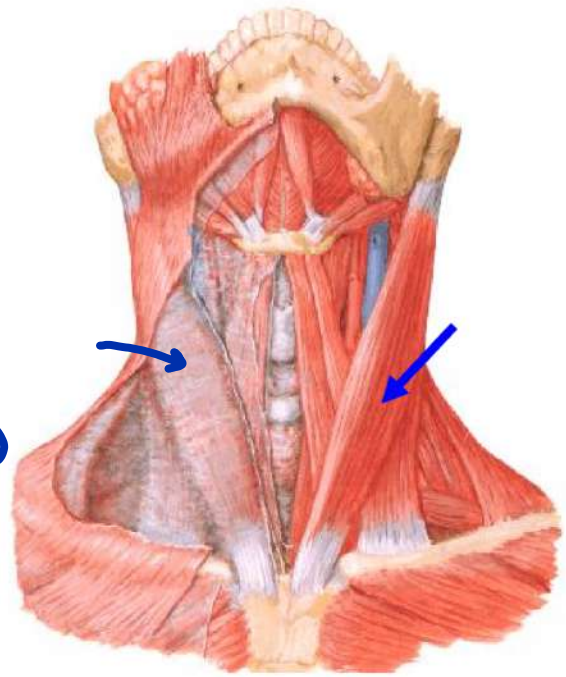
* **One muscle** bends the head to its own side & turns the face to the opposite side.

إذا اشتغلت
عنهلة وحدها ←

* **Both muscles acting together** pull the head forwards & flex the neck.

إذا اشتغلا العندين
مع بعض ←

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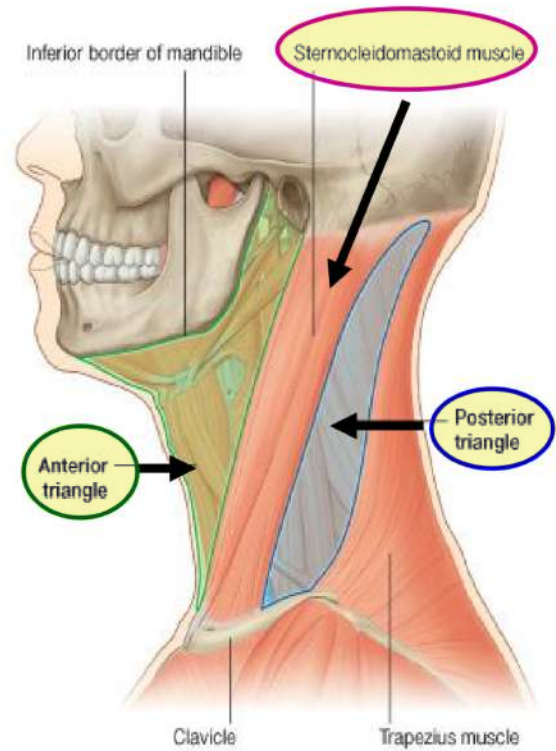
One muscle → turns the face to the opposite side

* **Sternomastoid**
divides the side
of the neck into 2
triangles:

1. **Anterior triangle**
 → **in front of the**
sternomastoid.

2. **Posterior triangle**
 → **behind the**
sternomastoid.

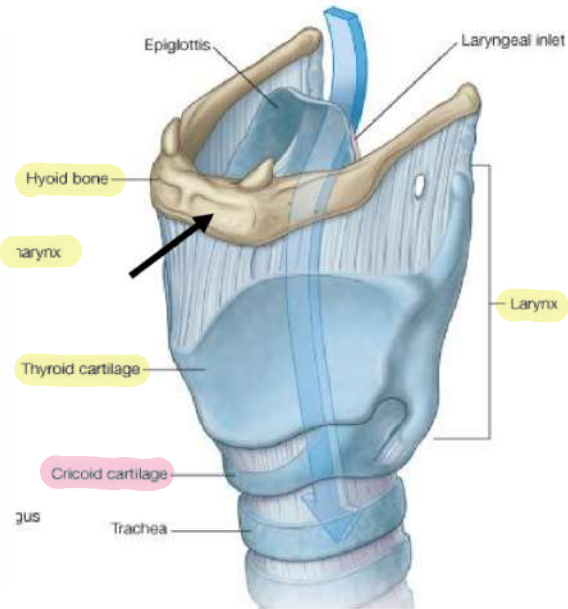
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What is the Hyoid bone ?

* A small U-shaped bone located just superior to the larynx.

* It does not articulate with any other bone but is suspended from the skull by stylohyoid ligament.



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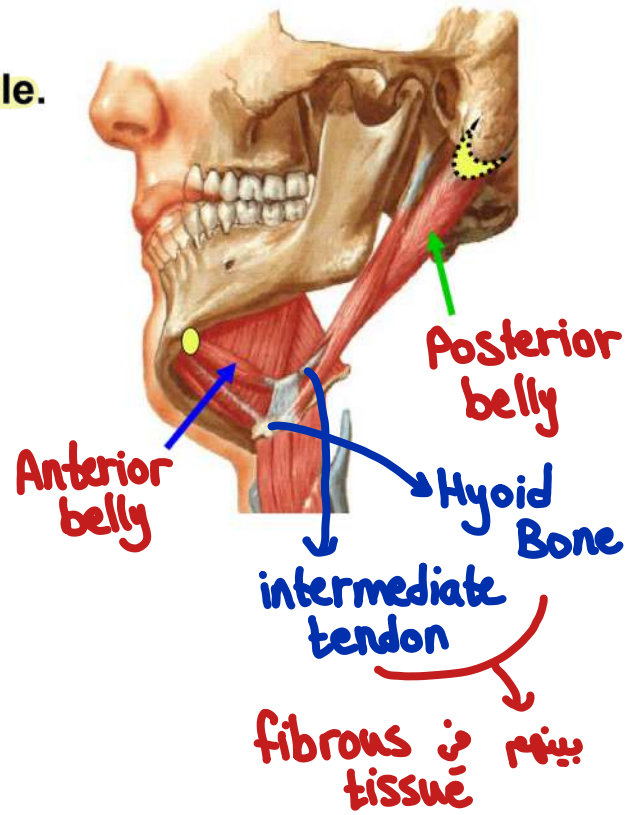
Hyoid Muscle **مؤده**

B. Suprahyoid Muscles → 4 muscles

Di/Bi **يعني** 2

1. Digastric Muscle

- * **Origin :**
- * **Anterior belly** → lower border of mandible.
- * **Posterior belly** → medial surface of mastoid process.
- * **Insertion :**
- * Both bellies meet at an **intermediate tendon** attached to → **Hyoid bone.**



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1. Digastric Muscle (contd.)

- * **Action :**
 - 1. Raises hyoid bone (during swallowing). **البلع**
 - 2. Depresses mandible (if the hyoid bone is fixed) **نفتح الفم**
- when it contracts & becomes shorter
 (عكس قاعدة insertion يتحرك و origin ثابت)

* Nerve supply:

- **Anterior belly** → mylohyoid N. (from mandibular N.).
 - **Posterior belly** → facial nerve.
- Handwritten blue bracket and underlines on the right side of the list.

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2. Mylohyoid Muscle → floor of the mouth

* Origin :

* Mylohyoid line of mandible

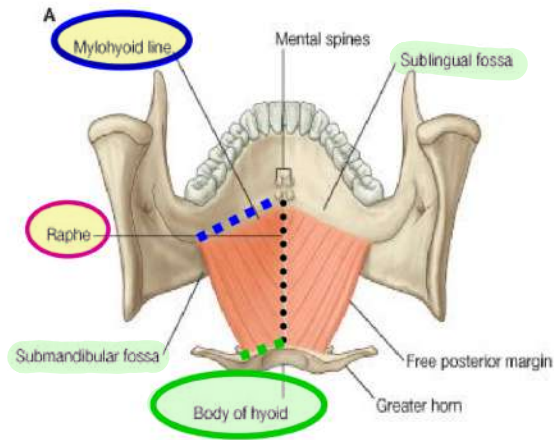
* Insertion :

* Mylohyoid raphe (between symphysis menti & hyoid bone)

* Nerve supply : Mylohyoid nerve (from mandibular nerve).

* Action:

1. Elevates hyoid bone during swallowing
2. Support the floor of the mouth
3. Depresses mandible



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3. Geniohyoid Muscle

Mylohyoid Muscle → superficial (under the skin directly)
→ Deep

* It lies deep to mylohyoid (above it)

* **Origin :**

* Genial tubercle of mandible

* **Insertion:**

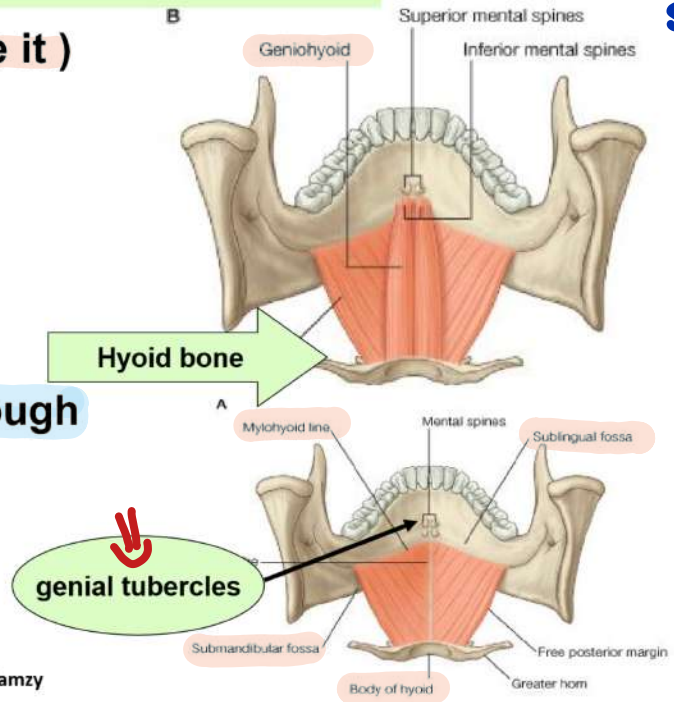
* Body of Hyoid bone

* **Nerve supply:**

* C1 fibers (1st spinal nerve) (through hypoglossal nerve)

* **Action :**

1. Elevates hyoid bone
2. Depresses mandible



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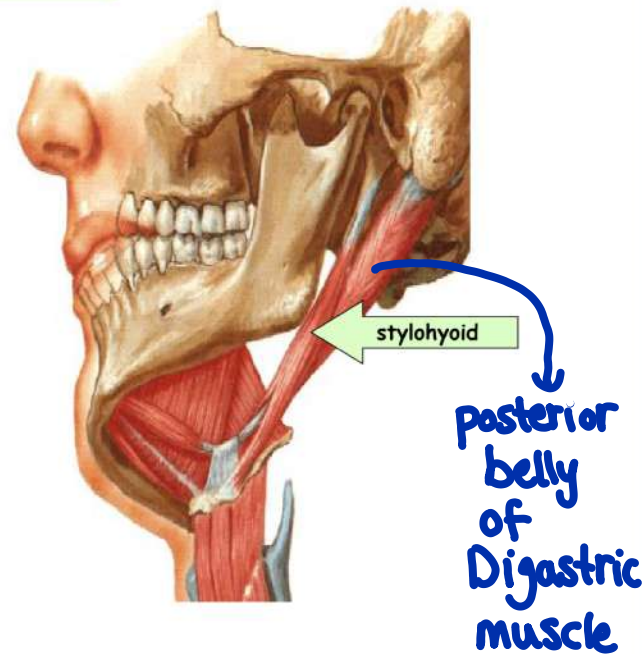
Elevation
↓
approximating
insertion to origin

Spinal Nerves → 31 nerves

Cranial Nerves → 12 nerves

4. Stylohyoid Muscle

- * A small muscle that lies along upper border of posterior belly of digastric
- * **Origin** → styloid process
- * **Insertion** → hyoid bone
- * **Nerve supply** → facial nerve
- * **Action** → elevates hyoid bone

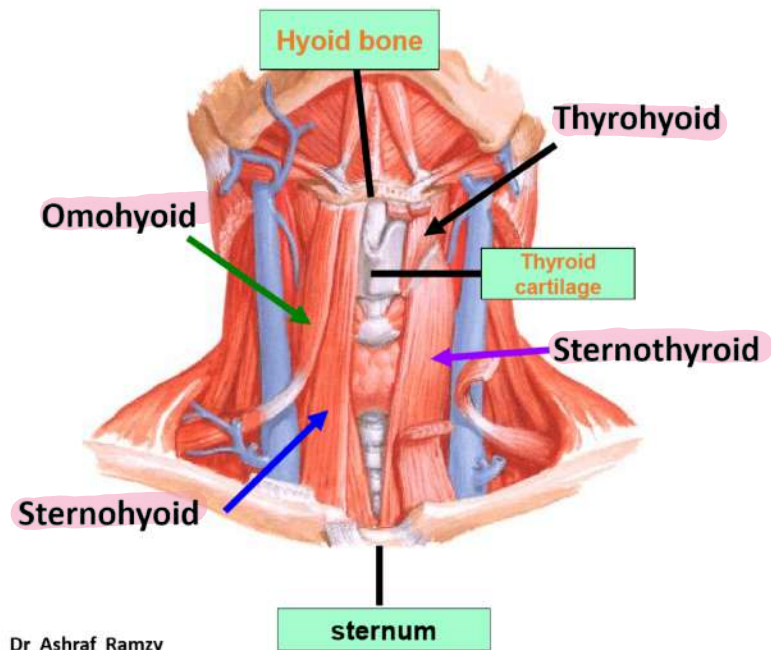


C. Infrahyoid Muscles

* 4 muscles that lie below the hyoid bone.

* Include:

1. Sternohyoid.
2. Omohyoid.
3. Sternothyroid.
4. Thyrohyoid.



both
Sides

← يمين و شمال

C. Infrahyoid muscles (contd.)

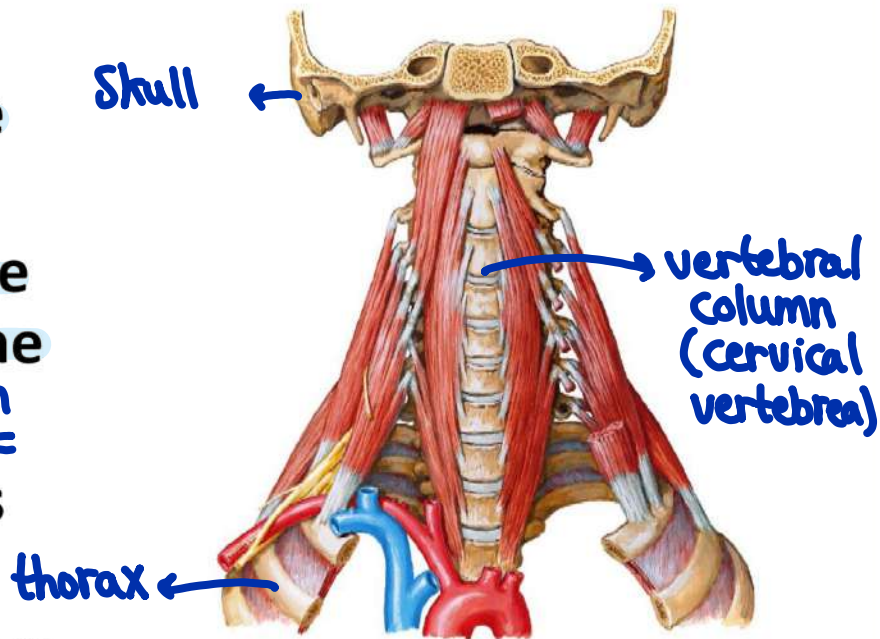
* All infrahyoid muscles are supplied by **Ansa Cervicalis** (C1,2,3) except **Thyrohyoid** which is supplied directly by **C1** (through **hypoglossal N.**).

@ All infrahyoid muscles **depress the hyoid bone.** ← Action (بتقل)

قبل before

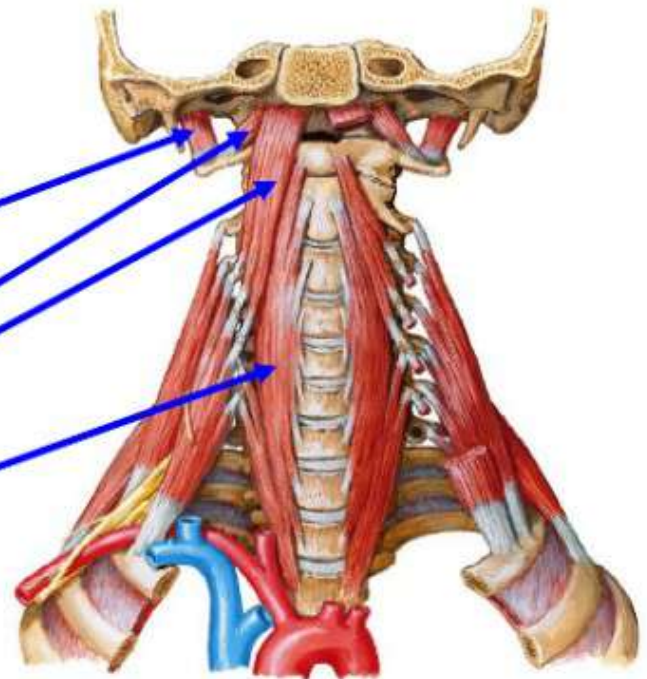
D. Prevertebral muscles

- * Are 4 muscles that cover the front of the vertebral column.
- * They extend from the base of the skull to the thorax. insertion origin
- * Their nerve supply is by cervical nerves.



D. Prevertebral muscles (contd.)

- * They include:
 1. Rectus capitis lateralis.
 2. Rectus capitis anterior.
 3. Longus capitis.
 4. Longus colli (cervicis).



E. Lateral Vertebral Muscles (Scalene Muscles)

** A group of 3 muscles that extends from the transverse process of cervical vertebrae till the 1st & 2nd ribs to stabilize the neck.

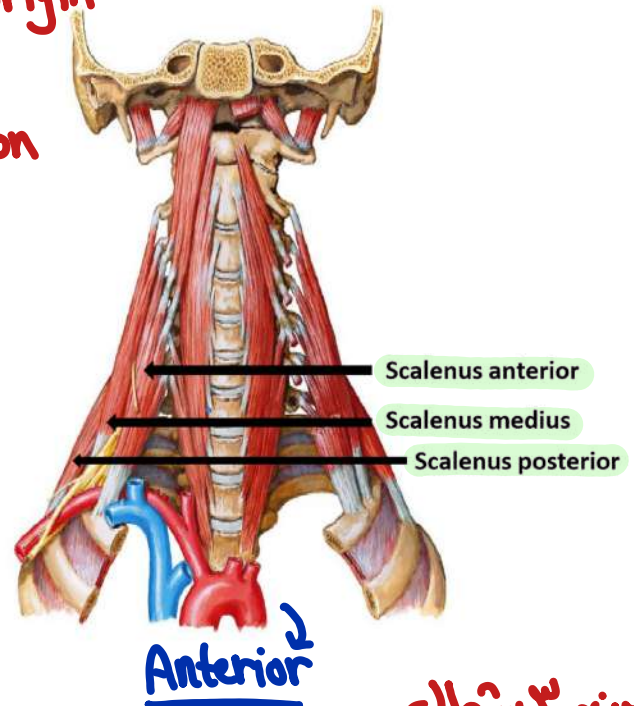
origin

insertion

** Their action is either flexing the cervical vertebrae laterally or elevate upper 2 ribs during inspiration.

** They include:

1. Scalenus anterior.
2. Scalenus medius.
3. Scalenus posterior.



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الحنك

F. Muscles of Pharynx

1. The 3 constrictors:

* Have the same insertion (into pharyngeal Raphe) but have different origins.

1. Superior constrictor (SC) :

takes origin from skull & mandible.

2. Middle constrictor (MC) :

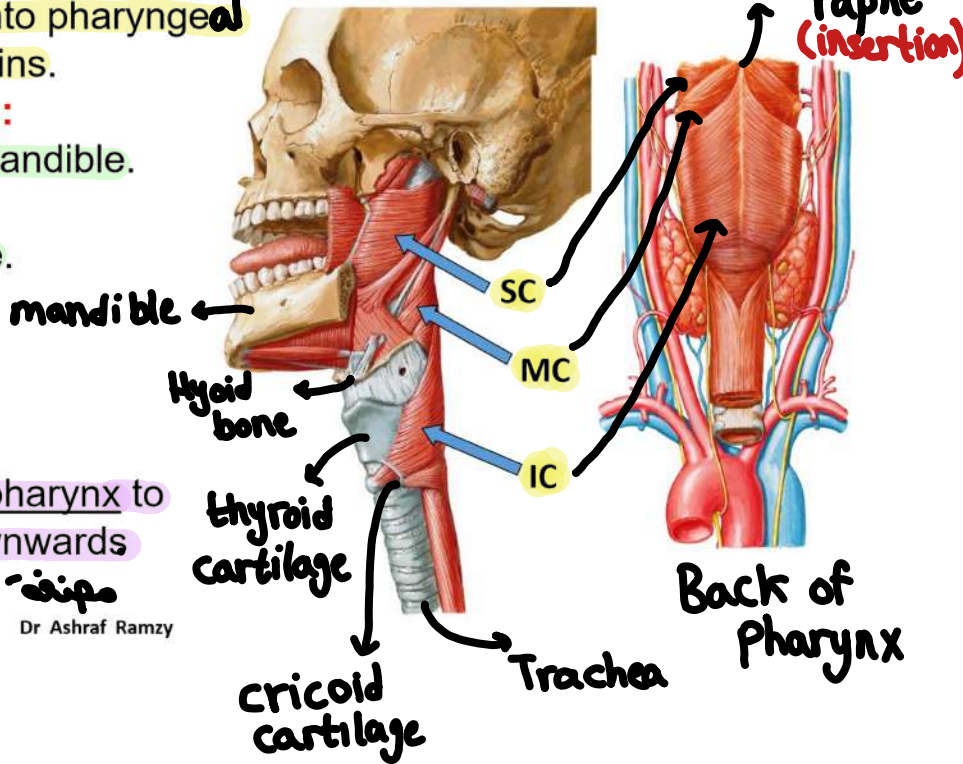
takes origin from hyoid bone.

3. Inferior constrictor (IC) :

takes origin from thyroid & cricoid cartilages.

* Action of constrictors:

They contract to constrict the pharynx to push the bolus of the food downwards towards the oesophagus.



حنك
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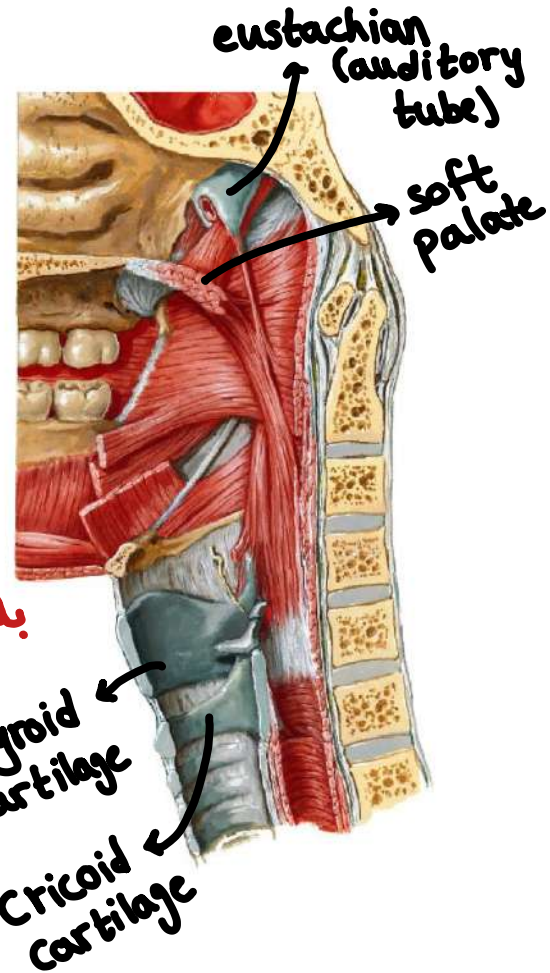
Constrictor → اختناق

II. The 3 longitudinal muscles :

* All have the same insertion → thyroid cartilage, but they have different origins :

1. **Stylopharyngeus** : arises from styloid process. ← origin
2. **Palatopharyngeus** : arises from soft palate. ← origin
3. **Salpingopharyngeus** : arises from the wall of eustachian (auditory) tube. ← origin

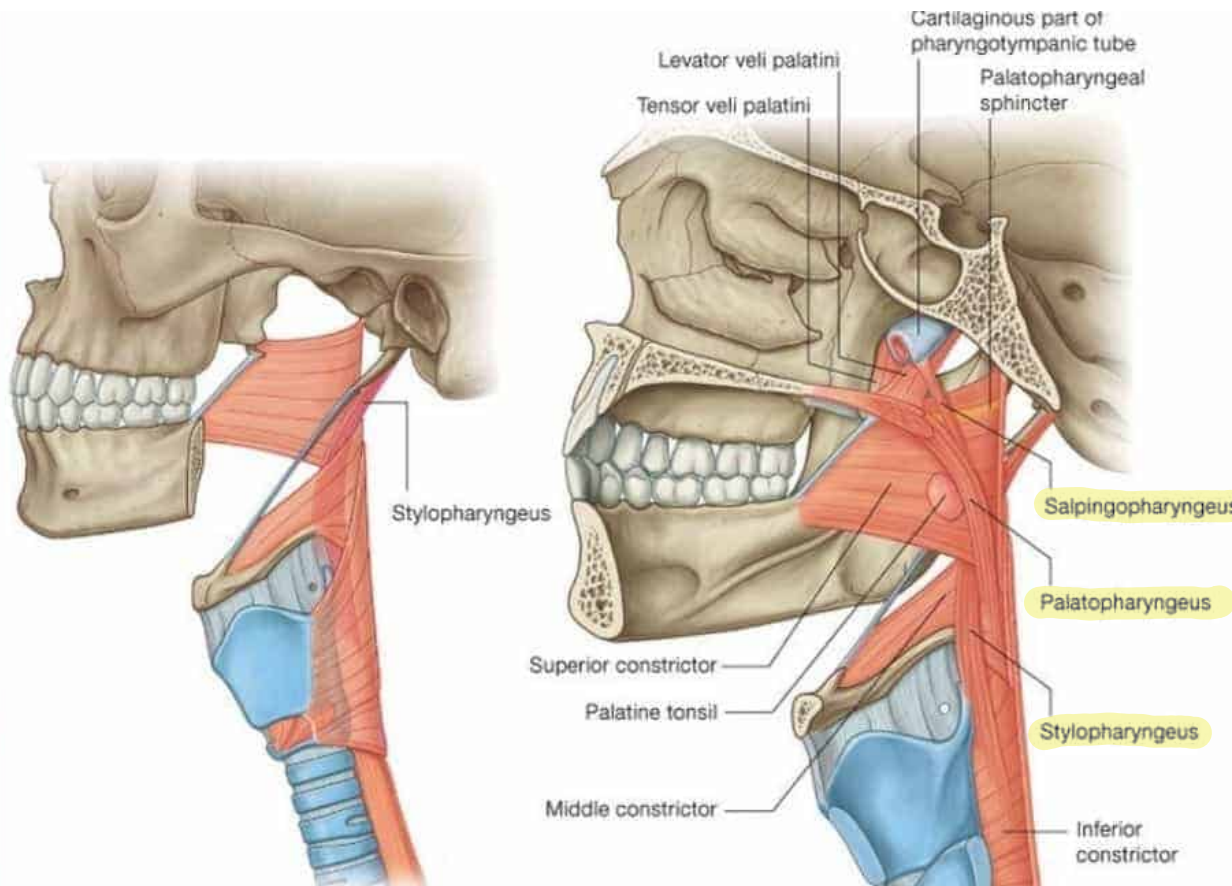
* **Action:** They pull larynx & pharynx upward during swallowing to close the laryngeal inlet.



Salpingo → tube
عنا

مدخل الحنجرة

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قليلًا مِنَ التَّفَاوُلِ يَصْنَعُ أَلْفَ طَرِيقٍ نَحْوَ السَّعَادَةِ..
بالتوفيق



#النادي_الطبي
#معكم_خطوة_بخطوة