



ANATOMY TEAM

LECTURE 3

Anatomy of Larynx, Trachea & bronchi

Objectives:

- Describe the Extent, structure and functions of the larynx.
- Describe the Extent, structure and functions of the Trachea.
- Describe the bronchi and branching of the brochial tree. Describe the functions of bronchi and their divisions.

تنويه : هذا العمل لا يعتبر مصدر أساسي للمذاكرة ، وتم التأكد بأنه لا يوجد أي اختلاف بين سلايد الأولاد والبنات ..

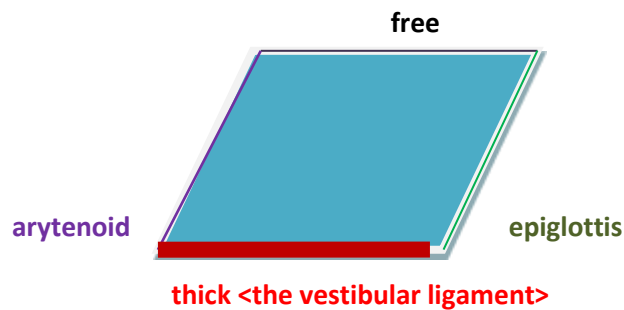
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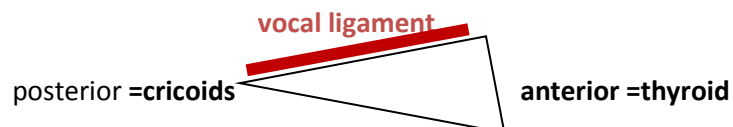
Note:

- *The larynx function as Deglutition (swallowing) by closing it
- *any injury of Carotid arteries , jugular veins, and vagus nerve, Superior and inferior thyroid arteries, Superior and recurrent laryngeal nerves will be associated with larynx .
- *the main structure of the larynx <cartilage >
- *the movement of the larynx associated with the movement of hyoid bone
- *Thyroid= Adams apple
- *Cricoid=ring shape<synovial joint>
- *Epiglottis =leaf shape
- *Corniculate and Cuneiform=you can see them only on living body due to mucosa membrane
- *the thickening of the Thyroid membrane called , median & lateral thyrothoid ligaments
- * Cricothyroid is the only intrinsic muscle which found outside the larynx.

*Quadrangular membrane



*Cricothyroid membrane (conus elasticus):

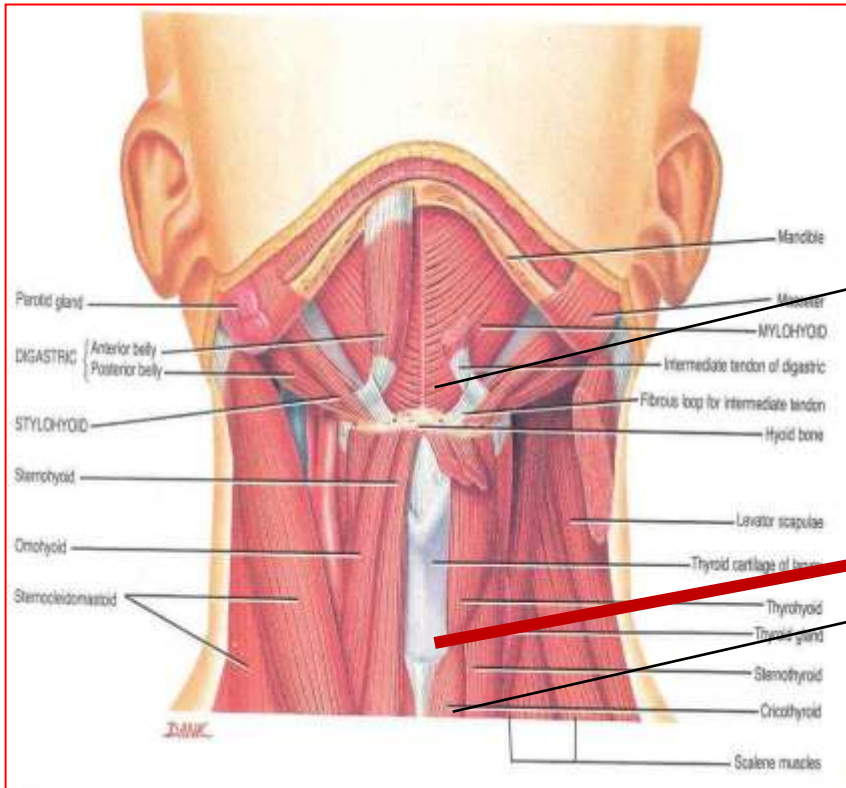


- *Laryngeal Inlet is thick because it should be open all the time !*doctor *
- *Narrowest in the region of the vocal folds (rima glottidis) (**imp**)

* Laryngeal Cavity it has different sizes .

- The bronchioles end in a cluster of thin walled alveoli.

Based on their function, the divisions of bronchi can be divided into two groups



Suprahyoid Muscles= Elevators of the Larynx

Hyoid bone

Infrahyoid Muscles = Depressors of the Larynx

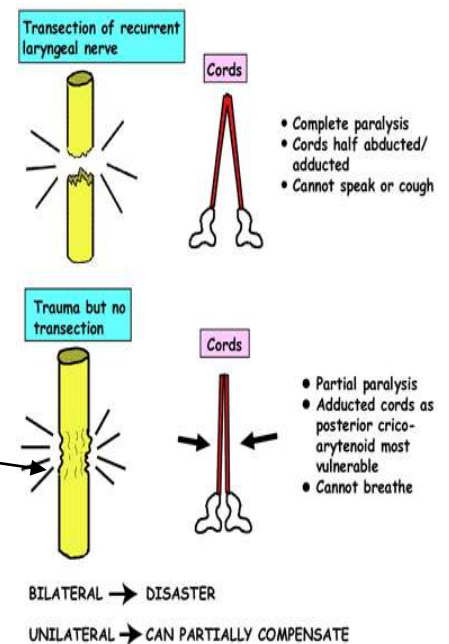
*pay attention to slide 13 its not **Pharyngeal Inlet!! Its larynx inlet**

Posterior cricoarytenoid it's the most important for allowing the air to pass

*Semon's Law

the external laryngeal nerve is an important nerve

*The ridge at the bifurcation is called carina. It is the most sensitive part of the tract and is associated with the cough reflex



Right Principal Bronchus= Wider its most common place for foreign body

<http://www.youtube.com/watch?v=Z3S2dD9BrSY>

This is only in male slides:

You can remember Suprahyoid Muscles as the word (MSGD) مسجد

1. Mylohyoid.
2. Stylohyoid.
3. Geniohyoid.
4. Digastric.

Quiz :

1-The long of the larynx is :

- A-2 inch
- B-3inch
- C-4inch

2-The larynx is related to:

- A-Carotid arteries
- B-jugular veins
- C-both

3-The larynx consists ofbasic components:

- A-4
- B-3
- C-5

4- Epiglottis is formed of-cartilage:

- A-elastic
- B-hyaline
- C-both

5-Quadrangular membrane Its lower free margin forms the
:

- A-vestibular ligament*
- B-Vocal ligament*
- C-Thyroepiglottic ligament*

6-The free margin of cricothyroid membrane forms vocal ligament

- A-upper*
- B-Lower*
- c-lateral*

7-Narrowest in the region of the vocal folds

- A-rima vestibule*
- B-vestibule*
- c-rima glottides*

8-The part between the vestibular & the vocal folds, is called the:

- A-ventricle*
- B-rima glottidis*
- C-rima vestibule*

9-The surface of vocal folds:

- A- ciliated columnar epithelium*
- B- stratified squamous epithelium*
- C- both*

10-which one is considers as Depressors of the Larynx

- a- Stylopharyngeus*
- b- Geniohyoid*
- c- Sternohyoid*

11-Muscle Controlling the larynx Inlet:

- a- Oblique arytenoid*
- b- Aryepiglottic muscle*
- c- both*

12-Thyroarytenoid (vocalis) :

- a- decreasing the Length & Tension of Vocal Cords*
- b- increasing the Length & Tension of Vocal Cords*
- c- both*

13-which one is more important :

- a- Lateral cricoarytenoid*
- b- Transverse arytenoid*
- c- Posterior cricoarytenoid*

14-the most sensitive part of the tract and is associated with the cough reflex:

- A-carina*
- b-volac*
- c-primary bronchi*

15-The cricothyroid muscle is supplied by the:

- a-the external laryngeal nerve*
- b- Recurrent laryngeal nerve*
- c-Internal laryngeal nerve,*

16-In the trachea The ridge at the bifurcation is called :

A-carina

b-volac

c-primary bronchi

17-Relations of Trachea in the Superior Mediastinum "left"

a- Left vagus nerve

b-Pleura

c-both

18-the.....supply sensory fibers to the mucous membrane:

a-vagus nerve

b-the recurrent laryngeal nerve

c-both

19-Gives superior lobar bronchus before entering the hilum of the right lung:

a-Right Principal Bronchus

b-Left Principal Bronchus

c-both

20-Based on their function, the divisions of bronchi can be divided into.....groups :

a-2

b-3

c-4

| Q | Answer |
|-----------|---------------|
| 1 | A |
| 2 | C |
| 3 | A |
| 4 | A |
| 5 | A |
| 6 | A |
| 7 | C |
| 8 | A |
| 9 | B |
| 10 | C |
| 11 | C |
| 12 | A |
| 13 | C |
| 14 | A |
| 15 | A |
| 16 | A |
| 17 | C |
| 18 | C |
| 19 | A |
| 20 | A |