

**ANATOMY TEAM** 

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Lecture (1)

Nose, Nasal cavity,
Paranasal Sinuses & Pharynx

#### **OBJECTIVES**

## At the end of the lecture, the students should be able to:

- Describe the boundaries of the nasal cavity.
- Describe the nasal conchae and meati.
- Demonstrate the openings in each meatus.
- Describe the paranasal sinuses and their functions
- Describe the pharynx and its parts

تنويه: هذا الملف لا يعتبر مرجع أساسي للمذاكره وإنما هو للمراجعه فقط، المرجع الاساسي هو السلايد ويوجد اختلاف بسيط بين سلايد الأولاد والبنات وتمت اضافته في الملف

للأولاد فقط: السلايد رقم 19 يوجد به نقص والمفروض يكون كالتالي ( النقص بالاحمر ):

#### Lateral wall shows:

- Palatopharyngeal folds.
- Palatoglossal folds
- Palatine tonsil located between them in a depression called the 'tonsillar fossa'.

#### فقط عند البنات

- Nose, is the only visible part of the respiratory system and serves as the entrance to the respiratory tract
- The nose has two cavities, separated from one another by a wall called the septum.

#### **Pharyngeal plexus**

 A network of nerves located on the surface of the middle pharyngeal constrictor muscle, is formed by pharyngeal branches of glossopharyngeal nerve (sensory), pharyngeal branch of vagus nerve (motor) and sympathetic fibers from superior cervical ganglion (vasomotor)

#### عند الأولاد فقط

#### The lymphatics from the:

- Vestibule drains into the submandibular lymph nodes.
- Rest of the cavity drains into the upper deep cervical lymph nodes.

The anterior wall of the nose is deficient and shows (from above downward):

- Posterior nasal apertures.
- Opening of the oral cavity.
  - Laryngeal inlet.

#### **Function of Circular (Constrictor) Muscles**

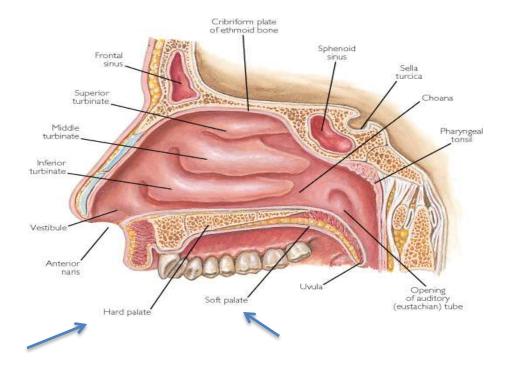
lower fibers of the inferior constrictor (Cricopharygeus)
 act as a sphincter, preventing the entry of air into the
 esophagus between the acts of swallowing.

# RESPIRATORY BLOCK LECTURE 1

(Nose, Nasal cavity,
Paranasal Sinuses & Pharynx)

#### **General notes:**

- roof of nasal > Body of sphenoid, Cribriform plate of ethmoid bone, frontal bone, nasal and cartilage.
- 2) Posterior part of septum > bone Anterior part of septum > cartilage
- 3) After hard palate there is soft palate



- 4) Posterior opining of nasal cavity is to Pharynx.
- 5) Ethmiod bone has a group of sinuses.
  - CALLED <u>ethmiodal</u> sinuses : not ethmiod sinuses.
- 6) When I remove the mucosal membrane that covers the Palatoglossal fold I will find the palatoglossal muscle.
- 7) Constrictor muscles of pharynx >it is constrict and push the food down to the esophagus

	Multiple
Single	
Concha	Conchae
Meatus	Meati

#### #Meaning:

- Meatus > is a natural body opening or canal.
- Recess > extension of cavity.

### Note: slide (8) is very important as the doctor said

#### # Helpful website:

- 1) <a href="http://www.youtube.com/watch?v=UGj7d1aNhsE">http://www.youtube.com/watch?v=UGj7d1aNhsE</a>
- 2) <a href="http://www.getbodysmart.com/ap/respiratorysystem/quizzes/nasalcavity2/quiz.html">http://www.getbodysmart.com/ap/respiratorysystem/quizzes/nasalcavity2/quiz.html</a>
- 3) <a href="http://www.getbodysmart.com/ap/respiratorysystem/pharynx/m">http://www.getbodysmart.com/ap/respiratorysystem/pharynx/m</a> enu/menu.html

Pharynx	Nasopharynx	Oropharynx	Laryngopharynx
Extends from the base of the skull to level of the 6 <sup>th</sup> cervical vertebra, where it is continuous with the esophagus	Extends from the base of skull to the soft palate	Extends from soft palate to upper border of epiglottis	Extends from upper border of epiglottis to lower border of cricoid cartilage.

#### Review:

- The Longitudinal Muscles of pharynx are..
  - Stylopharyngeus
  - Salpingopharyngeus
  - o Palatpharyngeous
- A small depression situated on either side of the laryngeal inlet ...

Piriform fossa

- Pharynx divide into:
  - 1) Nasopharynx
  - 2) Oropharynx
  - 3) Laryngopharynx
- the Functions of Paranasal Sinuses
  - Lighten the skull.
  - Act as resonant chambers for speech.
  - Air conditioning: The respiratory mucosal lining helps in warming, cleaning and moistening the incoming air.
- The cavity below each concha is called Meatus

## - The small space above the superior concha is the sphenoethmoidal recess

#### # Quiz:

- 1. The nose formed above by:
  - A. Plates of hyaline cartilage
  - **B.** Bony skeleton
  - C. Plates of elastic cartilage
- 2. Nasal cavity extend from:
  - A. External nares to the posterior nares.
  - B. Internal nares to the anterior nares.
  - C. Non of this
- 3. Nasal cavity divide into right and left haves by:
  - A. Middle concha
  - B. Nasal septum
  - C. Superior meatus
- 4. Which one of flowing is a part from roof of nasal cavity:
  - A. Crista golli
  - **B. Frontal bone**
  - C. Pharyngeal tonsil
- 5. The small space above the superior concha is
  - A. Pharyngeal tonsil
  - **B.** Pharyngeal recess
  - C. sphenoethmoidal recess

6. The cavity below each concha is called A. Meatus B. Conchae C. Duct 7. Olfactory mucosa supplied by A. Axillary nerve **B.** Olfactory nerve C. Median nerve 8. The general sensation nerve of nasal cavity are derived from A-Ophthalmic, Autonomic fibers and maxillary nerve T1 and T2 Α. Olfactory nerve B. 9. Act as resonant chambers for speech is a function of A. Nasal cavity **B.** Paranasal sinuses C. Pharynx 10. Pharynx divides into A.3 parts B. 4 parts C. 2 parts 11. Pharynx is a muscular tube lying behind the A. Nasal cavity and oral cavity **B.** Oral cavity and larynx C. Nasal cavity, oral cavity and larynx

- 12. Nasopharynx is:
  - A. Medial part
  - **B.** Superior part
  - C. Inferior part
- 13. ..... Extends from the base of skull to the soft palate
  - A. Nasopharnx
  - **B.** Orpharynx
  - C. Laryngopharynx
- 14. The muscle of the pharynx are arranged in:
  - A. Circular
  - **B.** Longitudinal
  - C. Circular & Longitudinal

#### 15- Stylopharyngeus is supplied by:

- A-pharyngeal plexus
- **B-Vagus nerve**
- C- glossopharyngeal nerve

#### 16- Palatine tonsil located between:

A-Palatopharyngeal fold and Tonsillar fossa

**B-Palatoglossal fold and Palatopharyngeal fold** 

C- Palatopharyngeal fold and

Salpingopharyngeal fold

N.O	Answer
1	В
2	${f A}$
3	В
4	В
5	C
6	$\mathbf{A}$
7	В
8	$\mathbf{A}$
9	В
10	$\mathbf{A}$
11	C
12	В
13	$\mathbf{A}$
14	C
15	C
16	В

### GOOD LUCK ©