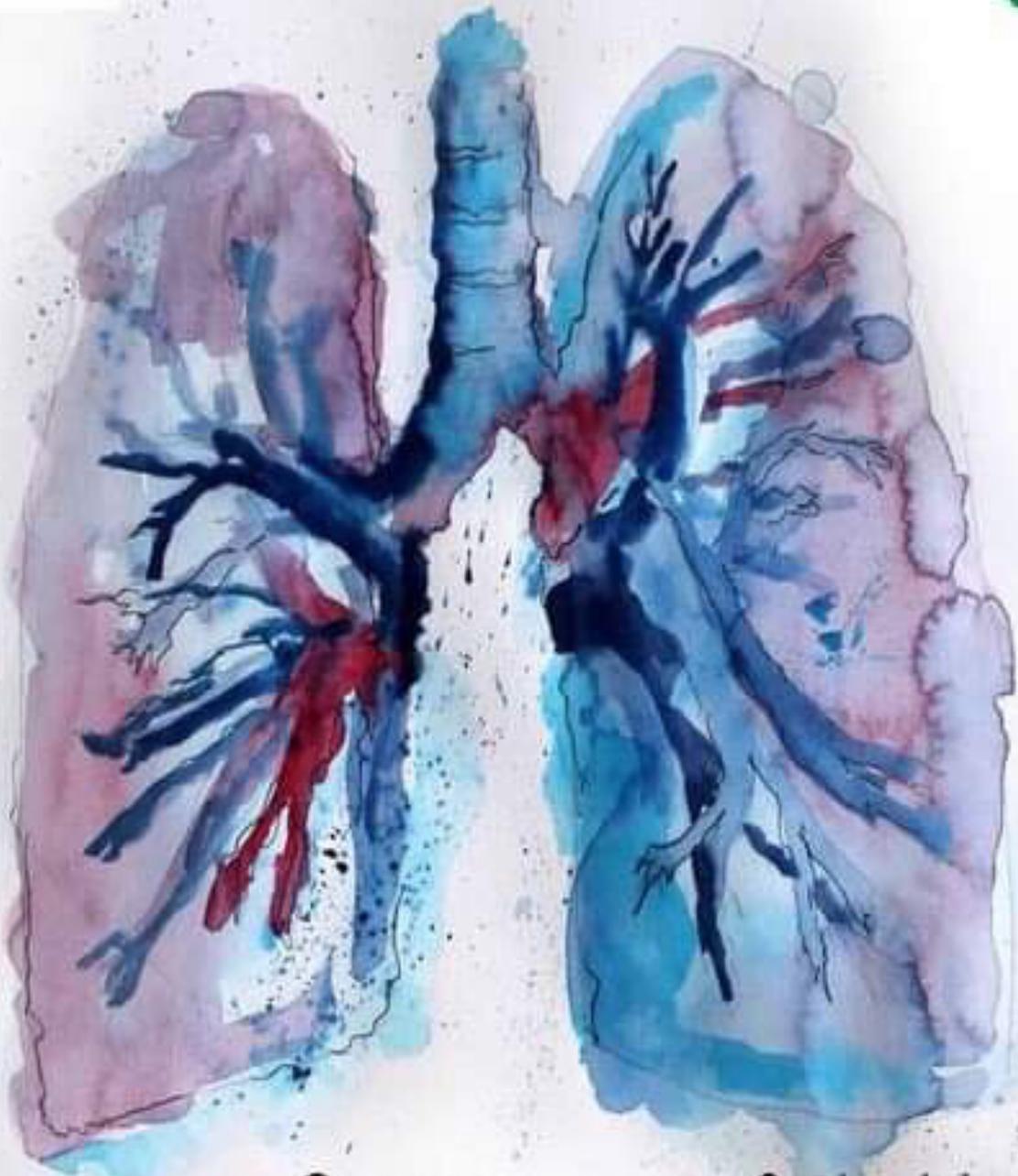




RS



● Anatomy

● Pathology

● Physiology

Lecture Nasal sinuses/pharynx. Date: 29/11/2019

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Edited BY : _____

Sheet correction link:

bit.ly/rsanatomy

Sinuses : are air filled spaces within specific bones of the skull, these sinuses are named after the bones they reside in, lined by respiratory epithelium and communicating with the respiratory atrium of the nose through tiny apparatus (tiny small organs)

We have four sinuses →

(from anterior to posterior)

1) maxillary sinuses

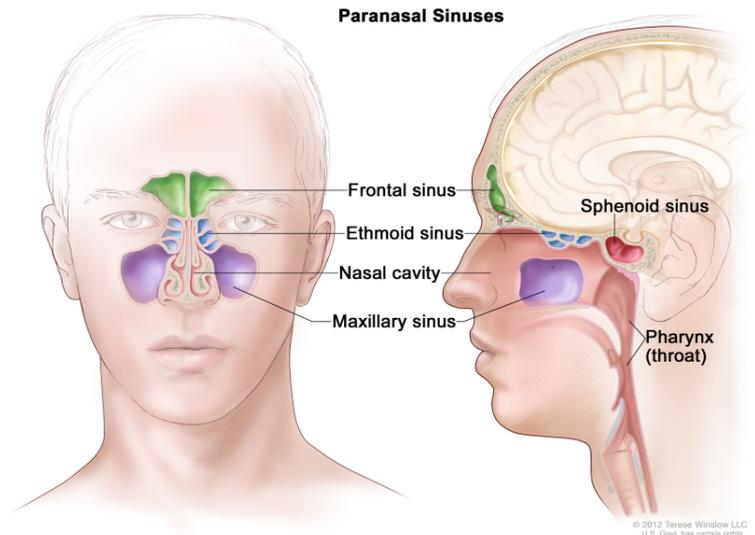
2) Frontal

3) ethmoid

4) sphenoid sinuses

! Num. 2 + 3 + 4 → Drain easily

! Num. 1 → heavily drained
“condensed” why is that ?



* because maxillary sinus is like a jug or a container , it can't spill its contents unless its over filled

* In cases of sinusitis of the maxillary sinus, its not easy for it to evacuate its contents, so we advice the patient with such case to sleep on the other side “قلبنا الجرة عجنبها” to evacuate the max. Sinus contents, we do this move because the opening of the maxillary Sinus is located on the top of the sinus.

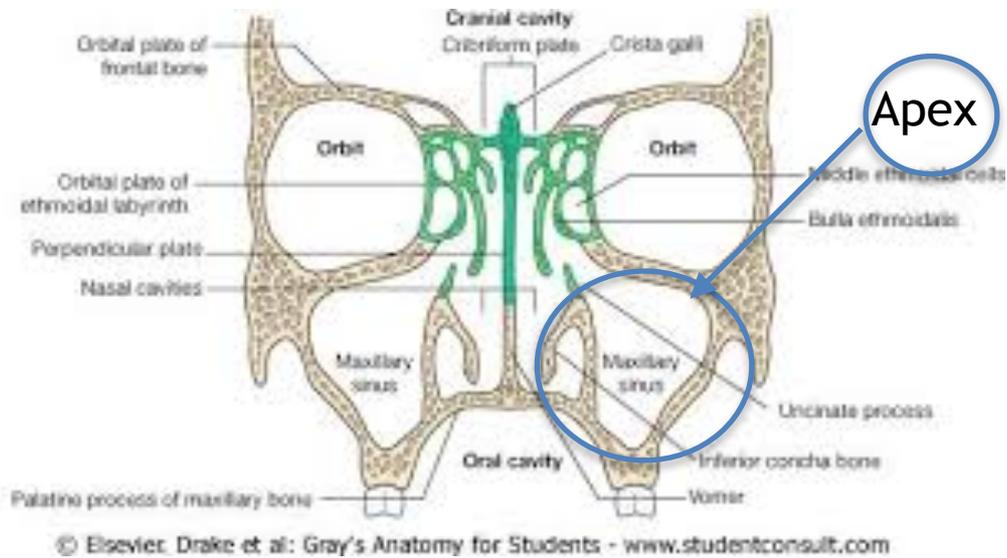
The function of the sinuses →

! Lower the weight of the head

! Sound resonance

! Alter the shape of the face while growing

** please refer to the slides



**please refer to the doctor picture

Maxillary sinus →

The floor of it : roots of molars and premolars

Roof : floor of orbit

Patients with sinusitis of the Maxillary Sinus suffer from **throbbing pain**.

Maxillary sinus is innervated by the the maxillary nerve.

**What's the common cause of maxillary Sinusitis ??

Dental Caries تنخر الاسنان

A periapical or periodontal infection of the upper premolars and molars may spread beyond the confines of the supporting dental tissue into the maxillary sinus causing **sinusitis**

How to treat the patient with maxillary Sinusitis in the clinic without the urge to go to the hospital ?

By extracting the tooth with caries

The doctor started to talk about another way of treatment , he mentioned the following muscles without explaining anything

**What are muscles used while elevating the upper lip/angle of the mouth

Zygomatic major

Zygomatic minor

Levator labii superioris

risorius “forced smile muscle”

Frontal sinus

Located in the frontal bone in the forehead, infection of this sinus is one of the causes of forehead pain.

It is separated by a septum, “rarely central or equal”

Nerve supply → Trigeminal nerve, mainly supraorbital branch.

Ethmoidal sinus

You should know the drainage of this sinus *mentioned in the slides*

Nerve supply → anterior and posterior ethmoidal nerves

Sphenoid sinus

Nerve supply → post. Ethmoidal nerve

Sinusitis of the sphenoid sinus it may affect the upper near to it which is hypophyseal fossa then pituitary gland, that's why sometimes you hear that someone got a tumor removal from pituitary gland tumor through trans nasal endoscopy .

Patients with pituitary gland tumor suffer from blindness due to damage of the optic nerve.

****Endoscopic pituitary surgery, also called transsphenoidal endoscopic surgery, is the most common surgery used to remove pituitary tumors. The pituitary gland is located at the bottom of your brain and above the inside of your nose.** EXTRA**

What's on the left and right of sphenoid bone ?

Cavernous sinus and its a dural venous sinus

the sinusitis of the sphenoid bone affects the cavernous sinus so it may cause meningitis .

The worse type of meningitis is caused by cold “viral infection”.

The only two sinuses that can be seen /present at birth are : maxillary and frontal sinuses

If the sinus is almost always infected we remove all of the mucous membrane “last option”

Pharynx

Pharynx is a musculomembranous funnel shaped tube about 15 cm long extending from base of skull to esophagus at the level of c6 , located behind nasal opening or laryngeal opening .

Its divided and named according to the openings anterior to it:

-nasopharynx

-oropharynx

-laryngopharynx

The pharyngeal wall is like trachea *check the pharyngeal wall slide num 4*

He added to that slide : that this structure is like the trachea's structure

Its deficient posteriorly or defected “mafi posteriorly he said”

Its bordered anteriorly by the posterior opening of the nose

**the function of pharynx and oesophagus

Moving bolus of food through contraction of circular muscle layer “movement of food from superior to inferior”

The function of longitudinal muscles is to push the bolus down when its stuck “as the doctor said”

He moved then to the pharyngeal muscles slide 12

Pharyngeal muscles

-3 constrictors “ don't forget the slides “

They have an anterior fan shaped narrow origin and they insert posteriorly into a medial line or ligament called median fibrous raphe

Pharyngeal raphe : is a fibrous line extending from the base of the skull “anterior to the foramen magnum → pharyngeal tubercle” to cricopharyngeous muscle

-3 longitudinal “check slide 14”

When we remove the pharyngeal raphe we will be able to see longtidunal muscles

*Stylopharyngeous they origin from the styloid process of temporal bone

*salpingopharyngeus → salpingo means tube

Pharyngeal muscles are innervated by pharyngeal branches of vagus and glossopharyngeal nerves and sympathetic GVS , “GVS : glossopharyngeal vagus sympathetic”