* structure of lip → Internal surface → (non ketratinized s.q) labial glands.

* structure of tongue → Dorsal surface → (Para ker. sq) Minor salivary glands.

* " " → Ventral portion → (non ker. sq) Lingual glands.

* palate → palatine glands.

* Circumvallate papillae → lateral sides → von Ebner's gland (serous, begin lipid hydrolysis)

+ found in : Foliate papillae (حكيتها المذكورة بالمحاضرة)

- the only give serous

* all of them (except Von. E) give mucous.

※ Accessory salivary gland : small, micro. scattered in CT of oral mm.

⇒ secret saliva 10% Constant rate.

⇒ secreation mainly mucous.

the tongue

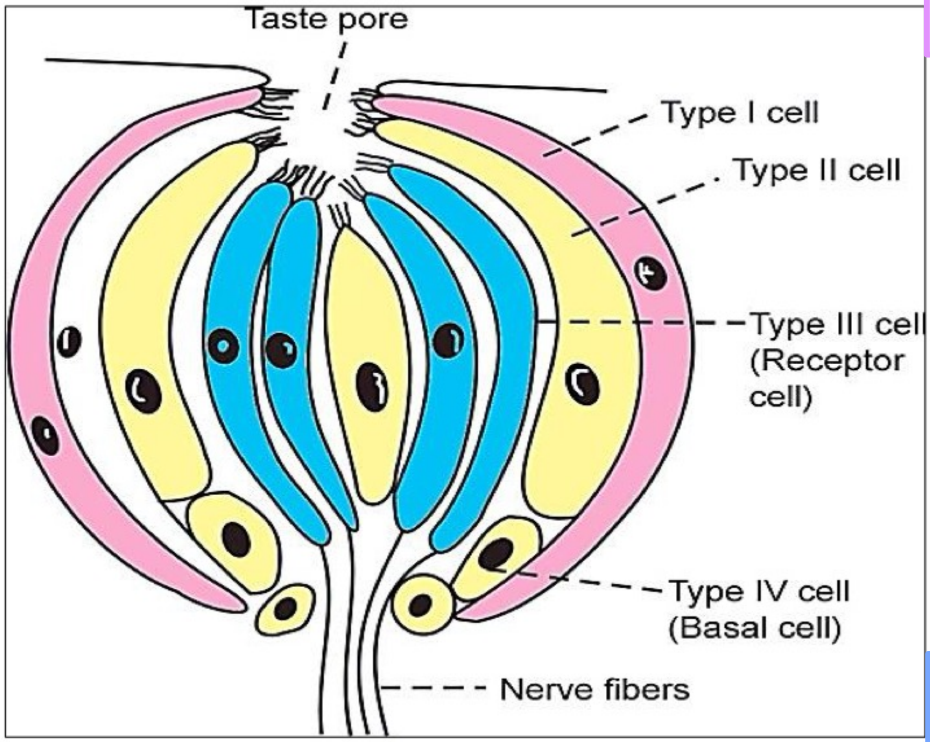
ant 2/3 - contain papillae

post 1/3 contain lingual tonsil.

Dorsal	Ventral
* Para-ker. s.q firmly attached to the CT.	* Non ker. s.q attached loosly attached to CT.
# * papillae (ant 2/3)	* No papillae.
* Minor salivary glands	* lingual glands

* papillae

Papillae Type	Shape	Epithelium	Taste Buds	Location	Key Features
Filiform Papillae	Conical	Keratinized stratified squamous	None	Anterior 2/3 of tongue	Numerous; mechanical function.
Fungiform Papillae	Mushroom-shaped	Non-keratinized stratified squamous	Present (superior surface)	Anterior 2/3 of tongue	Highly vascular; red color due to many blood vessels in underlying connective tissue.
Circumvallate Papillae	Circular	Non-keratinized stratified squamous	Present (lateral sides)	Front of sulcus terminalis	Largest; surrounded by groove (trench); contains Von Ebner's glands for lipid hydrolysis.
Foliate Papillae	Short vertical folds	Non-keratinized stratified squamous	Present	Sides of tongue	Separated by grooves; high risk for oral cancer.



Structure of the taste bud

1- Type I cells :
- are glial –like cells that provide structural support to the taste bud & maintain the ionic environment within the taste bud

2- Type II (receptor cells)
- Sensory receptor cells for detecting specific taste stimuli they have microvilli on their apical surface which extend into the taste pore where they interact with the tastants

- These cells contain (G-protein-coupled receptors)that bind with specific taste molecules

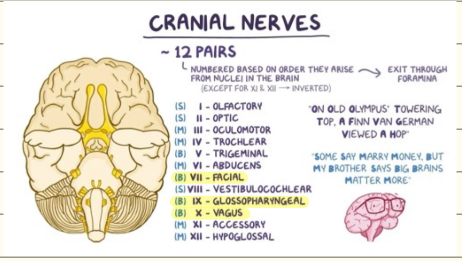
- Type II undergo signal transduction & release neurotransmitters which are then communicate with type III cells

3- Type III (presynaptic cells)
- Type III are involved in transmitting taste information to the brain
- These cells have synaptic vesicles and form synaptic connections with afferent fibers
- They responsible for transmitting signals from type II cells
to the afferent fibers of cranial nerves (VII, IX or X)

4- The basal cells
found at the base of taste bud act as a stem cells for regeneration other types Type I, II & III

(Type II & Type III are the neuroepithelium of taste buds)
The average lifespan of a taste bud is 10-14 days

Extra :



CRANIAL NERVES

~ 12 PAIRS
NUMBERED BASED ON ORDER THEY ARISE FROM NUCLEI IN THE BRAIN → EXIT THROUGH FORAMINA
(EXCEPT FOR XI & XII → INVERTED)

(S) I - OLFACTORY
(S) II - OPTIC
(M) III - OCULOMOTOR
(M) IV - TROCHLEAR
(B) V - TRIGEMINAL
(M) VI - ABDUCENS
(B) VII - FACIAL
(S) VIII - VESTIBULOCOCHLEAR
(B) IX - GLOSSOPHARYNGEAL
(B) X - VAGUS
(M) XI - ACCESSORY
(M) XII - HYPOGLOSSAL

"ON OLD OLYMPUS' TOWERING TOP, A FINN VAN GERMAN VIEWED A HOP"

"SOME SAY MARRY MONEY, BUT MY BROTHER SAYS BIG BRAINS MATTER MORE"

* Coated tongue : _ depris builds upon it.
(white tongue) - delay renewal of keratinized area on the <u>dorsal</u> surface.

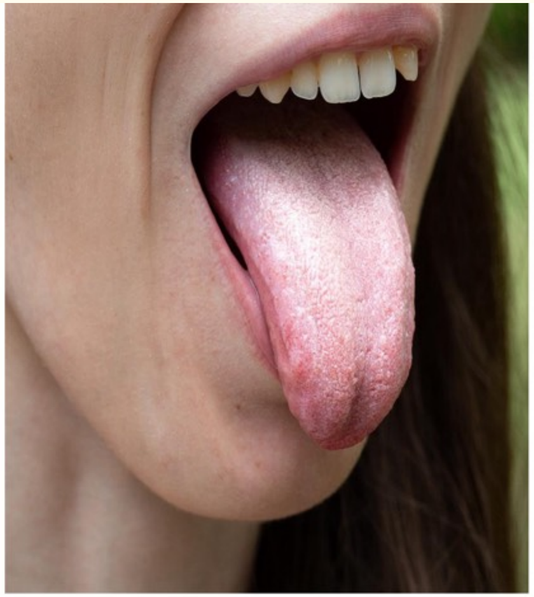
- accumulation of bacteria and inflammati

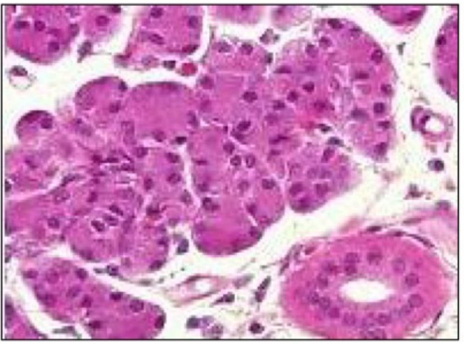
※ Bad oral hygine

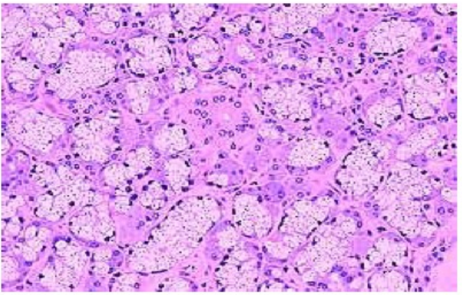
Xerostomia

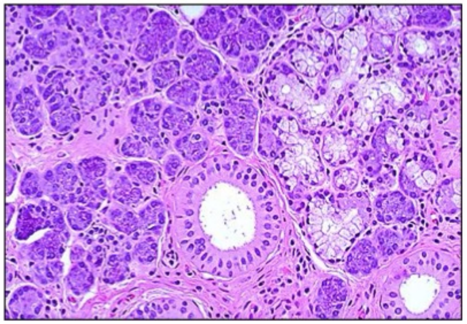
Mouth breathing

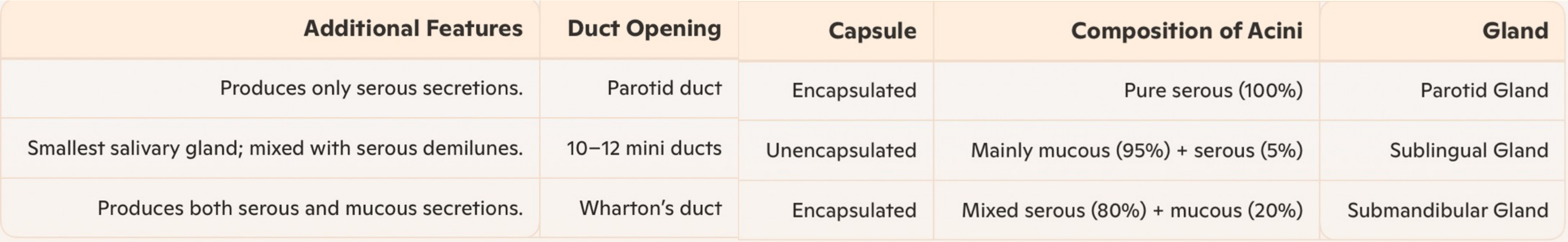
alcohal /Tobacco ...











Gland	Composition of Acini	Capsule	Duct Opening	Additional Features
Parotid Gland	Pure serous (100%)	Encapsulated	Parotid duct	Produces only serous secretions.
Sublingual Gland	Mainly mucous (95%) + serous (5%)	Unencapsulated	10–12 mini ducts	Smallest salivary gland; mixed with serous demilunes.
Submandibular Gland	Mixed serous (80%) + mucous (20%)	Encapsulated	Wharton's duct	Produces both serous and mucous secretions.

Done by : Raghad mrayat

اللَّهُمَّ إِنِّي أَعُوذُ بِكَ مِنْ قَلْبٍ لاَ يَخْشَعُ، ومِنْ دُعَاءٍ لاَ يُسْمَعُ، وَمِنْ نَفْسٍ لاَ تَشْبَعُ، وَمِنْ عِلْمٍ لاَ يَنْفَعُ، أَعُوذُ بِكَ مِنْ هَؤُلاَءِ الأَرْبَعِ