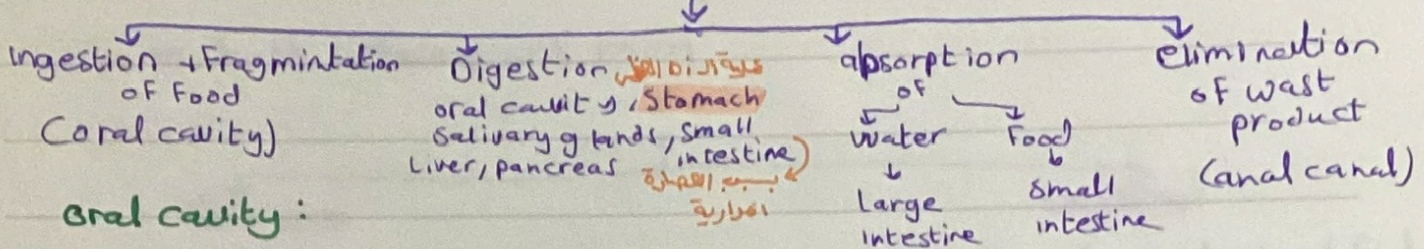


Histo "1"

①

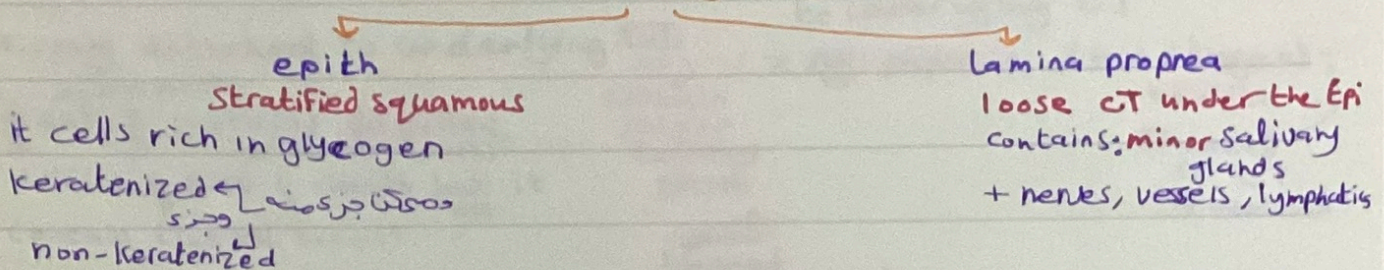
Function :



oral cavity :

- oral cavity is lined by mucous membrane

Formed by 2 layers



- Gums → \* Firmly attached to the bone under.

\* Covered with keratinized stratified squamous Epith (periosteum of the alveolar bone of the teeth)

The Lip

\* has External surface covered by skin + internal surface covered by m.m

+ inside the Lip contains bundle of skeletal ms. (orbicularis oris)

and fibro elastic CT → BV...

red margin of Lip : covered with modified skin (less keratinized)

No hair follicle, No sebaceous or sweat gland

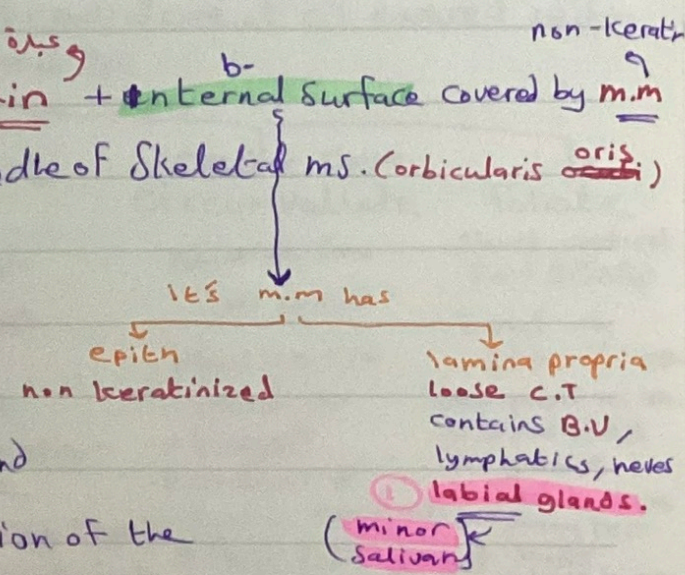
transparent red due to the reflection of the underlying BV

\* Lip margin (vermillion)

Less keratin (Face skin) vs highly keratin (Lip skin)

∴ it is the change of epidermis from high keratin to less keratin

\* richly supplied of free nerve endings so it's highly sensitive

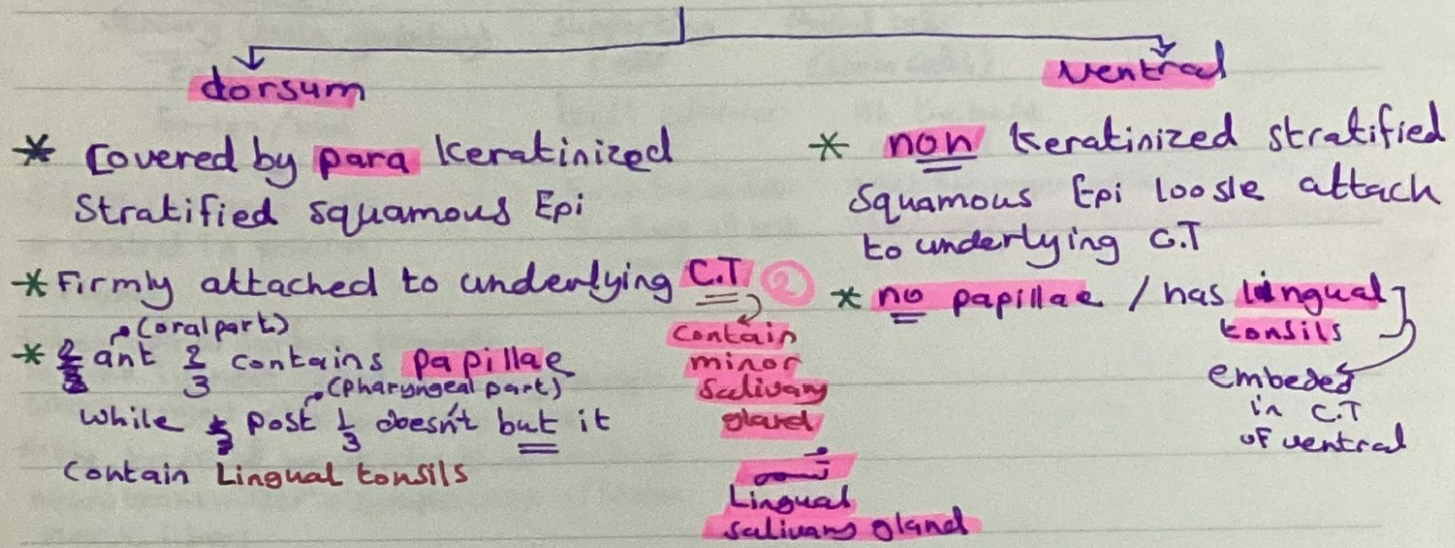




(2)

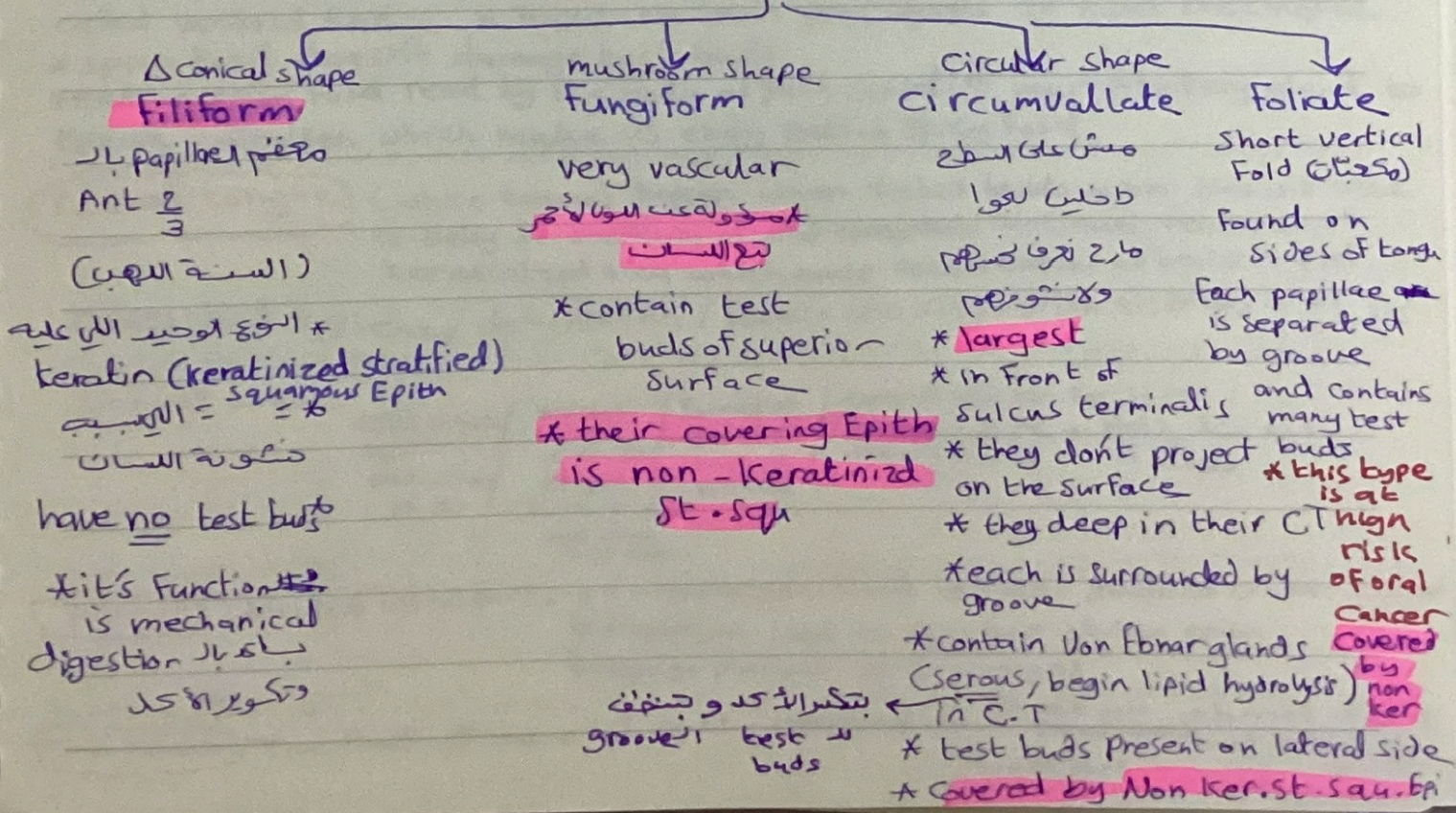
**The tongue**

Made of skeletal voluntary Ms. (4 intrinsic + 4 extrinsic) covered on both surfaces with m.m



**Lingual papillae**

\* Little projection of m.m of dorsum  
 \* each is formed of central core of C.T covered with stratified squamous Epi

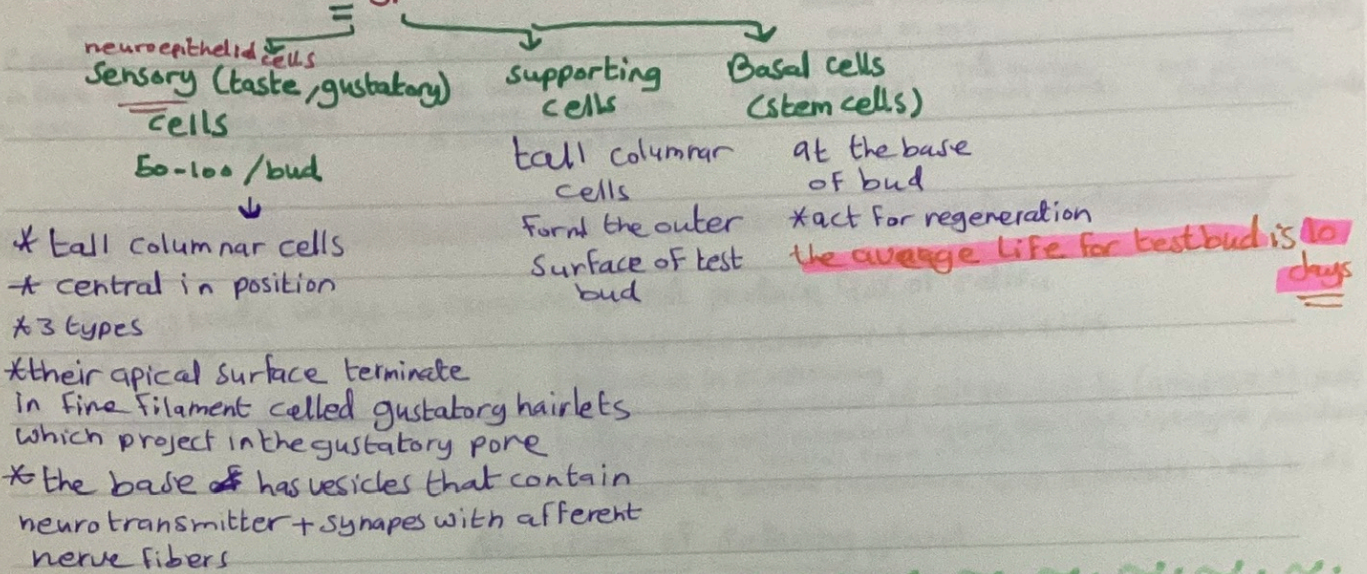




Test buds (neuroepithelium)

oval structure on dorsal surface of tongue in lingual papillae (2000-8000)

each form of 3 types of cells and taste pore for passage of saliva



Sensation of taste: bitter, umami, sour, sweet, salt

Spicy taste → is not a taste

it's a combination of hot and pain sensation  
 Capsaicin is the active gradient in chili peppers bind to Rec on the tongue called vanilloid Rec  
 \* the brain send signals to numb the tongue  
 \* spicy food doesn't damage test buds  
 \* eating spicy food read by the body as pain sensation your pituitary gland to release endorphin which make us enjoy eating spicy food

Coated tongue (white tongue) happen when debris builds upon this will lead to delay of shedding of and continual renewal of keratinized area which cause accumulation of bacteria + inf

causes: bad hygiene / dehydration / tobacco smoking, drink alcohol, oral candidas

Lingual tonsils assist immune sust in production of Ab

Mucous gland drain into crypts to wash off and clean any debris

Formed of group of lymphoid follicles

covered with non-ker, st. squ. that invaginate & post + 1/3 of tongue inward forming crypts

Pharynx Divided into 3 parts → nasopharynx: lined by pseudo stratified columnar ciliated epith  
 ↳ oropharynx: lined by non ker. st. squ. epith  
 ↳ laryngo pharynx: as oropharynx

The palate → The Roof of the oral cavity composed of

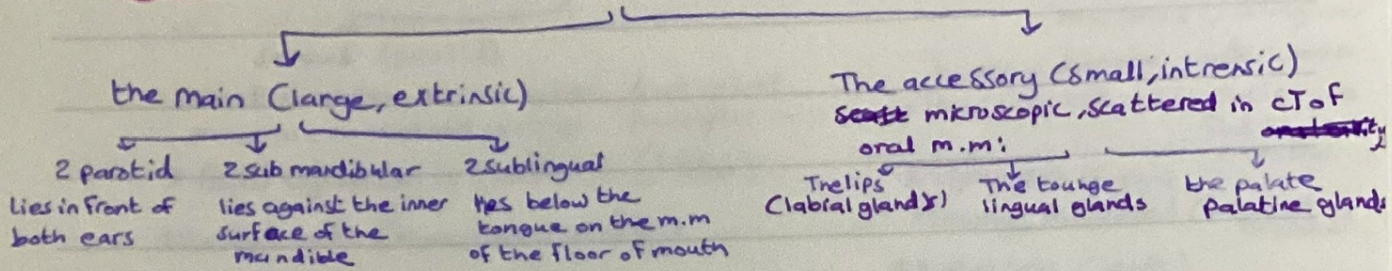
↳ ant part → formed of bone (hard palate) lined by ker. st. squ. epi

↳ post part → covered by non-ker. st. squ. epi (soft palate)



# Salivary gland

(4)

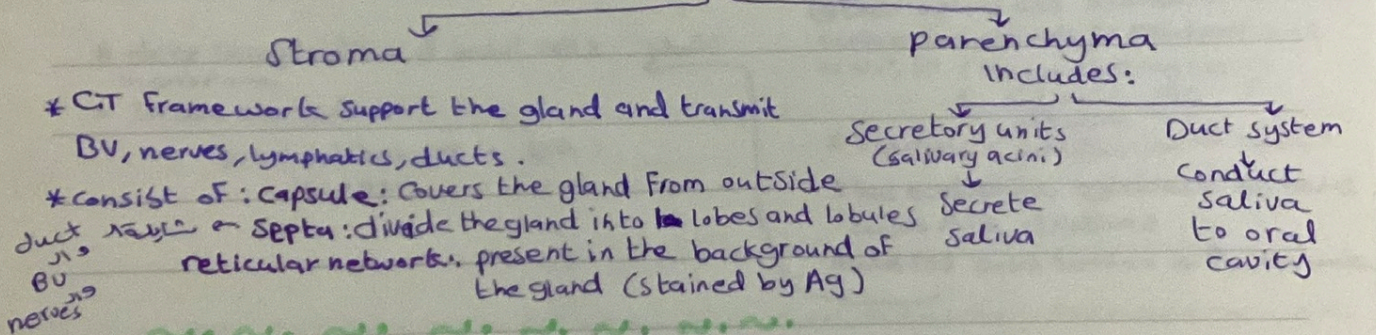


\* They secrete saliva 10% constant rate \* their secretion is mainly mucous accessory glands

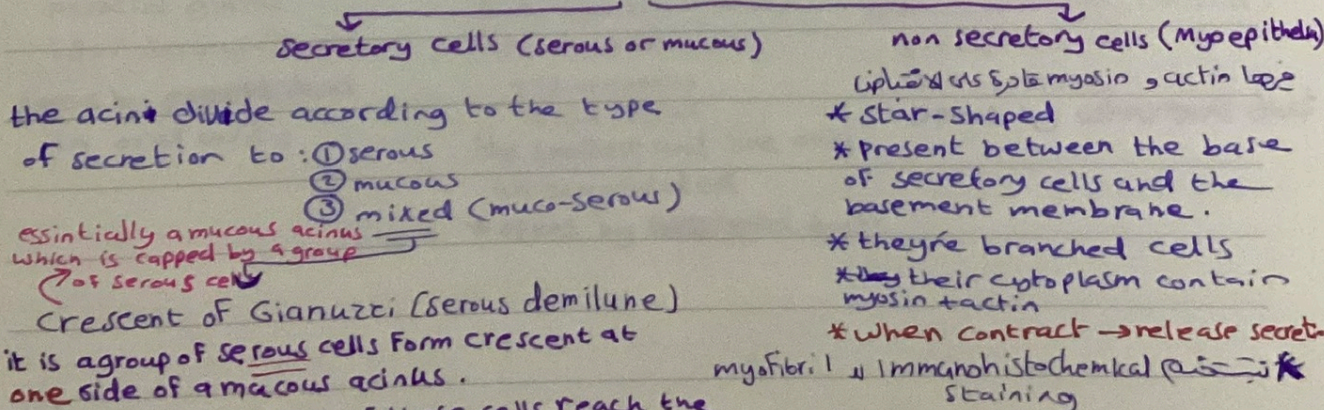
Salivary glands are exocrine gland produce 90% of saliva (PH 6.5-7.5)

- Functions of Salivary gland:
- ① Lubricate + clean oral mucosa + lips
  - ② assist in swallowing
  - ③ initiate digestion of CH<sub>20</sub>, lipids (amylase + lipase)
  - ④ contains antimicrobial agent like LISA, lysozyme, lactoferrin that control normal flora of oral cavity
  - ⑤ act as solvent substance that stimulate taste buds

## Structure of Salivary gland



(Secretory acini) → groups of cells encircling a lumen  
2 types



\* Demilune cells secrete the proteins that contain the lysozyme + Enzymes → so add antimicrobial activity to mucos



Serous Vs Mucous acinus

Serous (parotid)

- \* small diameter, narrow lumen, lines as short paramyidal cells
- \* Nuclei are rounded and central
- \* Basal cytoplasm is basophilic (↑RER)
- \* Basket cells (myoepithelial cells) less
- \* Secret fluid serous
- \* = amylase aid in digestion of starch

Mucous (sublingual)

- larger in diameter, wide lumen
- lines with tall cells, Nuclei are flat and peripheral
- \* Cytoplasm is pale
- o Foamy, vacuolated (dissolved mucous)
- \* Basket cells (more)
- \* Secret viscid mucus
- \* = mucous for lubrication

B- the duct system (branching system)

intercalated ducts

thin duct, drains the secretory units  
lined with flat or cuboidal cells

- \* deep invaginations of basal cells membrane
- \* Zonula occludans
- proximal tubules in (NS) kidney

Striated (secretory) ducts

- \* ① present inside the lobule
- \* ② take part in the secretion of saliva
- تغير تراكيب لتحتاج الى secretion
- \* ③ lined with low columnar cells
- \* ④ their apical and basolateral membranes contain ion channels to transport ions as Na<sup>+</sup>, K<sup>+</sup> (ion transporting cells)
- (saliva or تحت alkaline)
- \* hypotonic (بتقلبات في Na<sup>+</sup>)
- \* has acidophilic cytoplasm by basal acidophilic striations
- \* infolded basal lamina + ↑ mitochondria

Glands

parotid gland  
100% serous (purely)  
opens by parotid duct  
in oral cavity

sublingual (mixed)  
(mainly mucous)  
95% → mucous  
5% → serous  
the smallest and the only  
unencapsulated  
\* opens by 10-12 mini ducts

submandibular (mixed)  
80% → mucous  
20% → serous  
opens by Wharton's duct