

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

histro " " " "

تاريخی کا استکلا جیروا لسهیل اکفر

oral cavity

m.m

S.S. ker or non ker

C.T in lamina propria  
loose

contains  
minor salivary glands

gums

S.S ker

lips (ext surface)

S.S ker

—

contain hair follicles  
+ sebaceous and sweat glands

lips (int surface)

S.S. non ker

loose

contains B.V  
+ labial gland

lips (side)

—

Fibro-elastic

contains bundles of sk, muscles (orbicularis)

red margin of lip (vermillion)

—

—

covered with modified skin (thin, less ker, no hair follicles, no sebaceous and sweat gland)  
transparent red due to the reflection of underlying B.V

+ represent the change in the epidermis from highly ker

Face skin to less ker lip sk.:  
+ richly supplied of  
Free nerve endings ∴ it  
is highly sensitive

lounge  
(dorsum)

para ker  
S.S

C.T contains  
minor salivary  
gland

ant  $\frac{2}{3}$  contain papillae  
Post  $\frac{1}{3}$  = Lingual  
tonsils

(lounge)  
ventra

non.ker  
S.S

loosely attached  
to underlying  
C.T / no papillae  
lingual glands  
are embedded  
in its CT

fliriform  
papillae

النوع الوحيدة  
papillae

وهو Ker . S.S

بسبب قسوة اللسان

(مخروطية)  
conical shape  
- no test buds,  
الزكريات

Fungiform  
papillae

non ker  
S.S

mushroom  
shaped  
very vascular  
(red in color)  
→ test buds  
on super surface

Circumvallate  
papillae

non-ker  
S.S

largest, circular  
10-15 in number  
in front of  
sulcus terminalis  
deep in C.T  
contain Von-ebner  
gland  
(serous begin  
fat hydrolysis)  
test buds on  
lateral side

Foliate  
papillae

non. ker  
S.S

short vertical fold  
→ found on side of  
the tongue,  
each papilla is  
separated by a groove

\* \* \* \* \*  
this type is at high risk for oral cancer buds

pharynx

nasopharynx

pseudo stratified  
columnar ciliated

oropharynx

non.ker.S.S

laryngopharynx

non.ker.S.S

# test buds

- ① neuro epi cells → tall columnar → central in position → in base contain vesicles with neurotransmitter and synapses with afferent nerve
  - ② supporting cells → tall columnar → form the outer surface of the bud
- \* the average life of the test buds is 10 days

recognize all chemicals in the taste buds  
all testants

minor salivary gland

- lips → Labial
- tongue → lingual
- palate → palatine gland

\* Microscopic  
\* mainly mucous  
\* 1% of total secretion

## Function of Saliva

- Contain anti microbial agents (IgA, lysozyme, lactoferrin that control the bacterial flora of oral cavity)
- assist in swallowing
- lubricating + clean
- act as a solvent that stimulate test buds
- initiating digestion of triglycerides

## perenchyma of salivary glands

secretory acini  
duct

secretory cells

non-secretory cells  
(Basket cells)  
star shaped

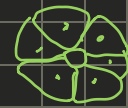
Found between  
the base of the  
secretory cells  
and the basement membrane

# Immunohistochemical

Staining for  
the myofibril  
within mesothelial  
cells

parotid gland is serous gland

sublingual is mucous gland

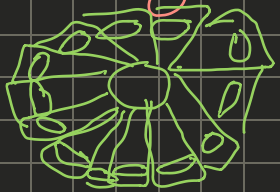


pyramidal cells  
small  
central and rounded nucleus  
narrow lumen

cytoplasmic is pale (basophilic RER)

cytoplasmic is pale

foamy / vacuolated



larger  
wide lumen  
~~large~~ tall cells  
nuclei are flat and peripheral

basophilic ← salivary glands  
rich in RER

acidophilic ← ion transporting cells  
rich in  
Mitochondria (striated) ducts

Sublingual → only unencapsulated  
(mixed) 95% + 5%

Submandibular → 1.8% + 20%