PHYSIOLOGY OF SALIVA

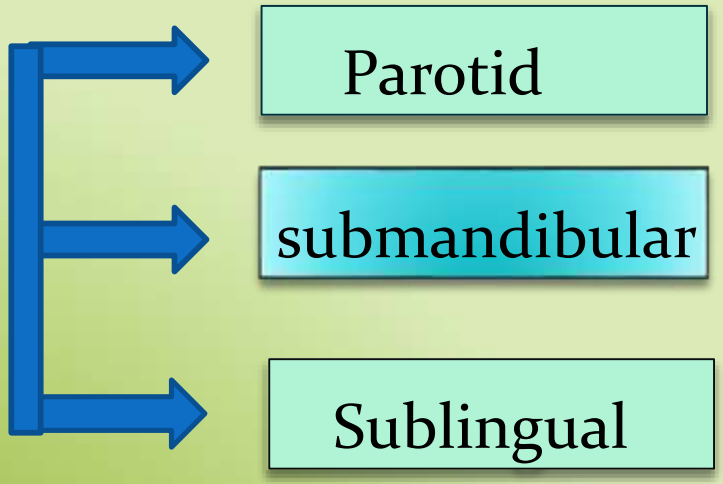
INTRODUCTION

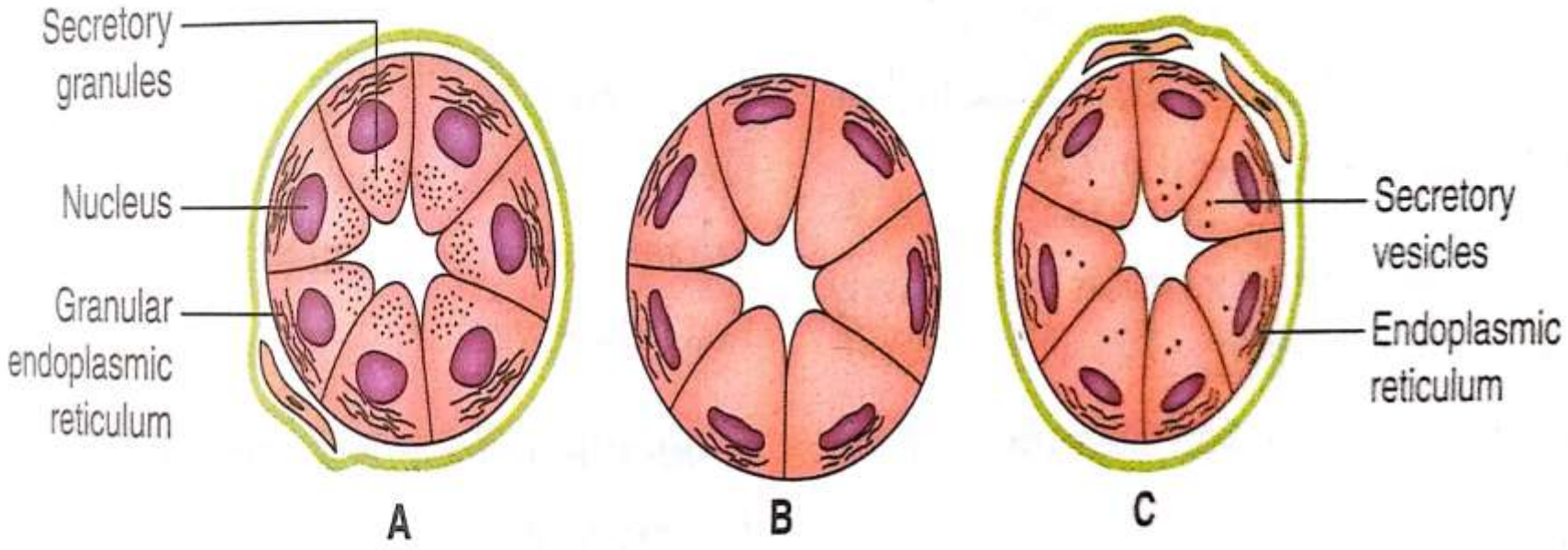
- **Human saliva consist of organic and inorganic components and plays role in mastication, bolus formation, acts as lubricant, speech, and protects oral mucosa**

- **Enzymes in saliva helps in digestion of starches and fat**

ANATOMICAL CLASSIFICATION

A. MAJOR SALIVARY GLANDS





Different types of acini in salivary glands: A, serous; B, mucous and C, seromucous.

Composition of Saliva

Quantity- 800- 1500 ml/day
Colour- Colourless
pH- 6-7
Content- 99.5% water & 0.5% solids

SOLIDS-

Inorganic
Rich in K, HCO_3
Less Conc of Na, Cl

Organic
Ptylin, Mucin
Blood grp Antigen
Lysozyme
Plasma protein
Salivary Lipase

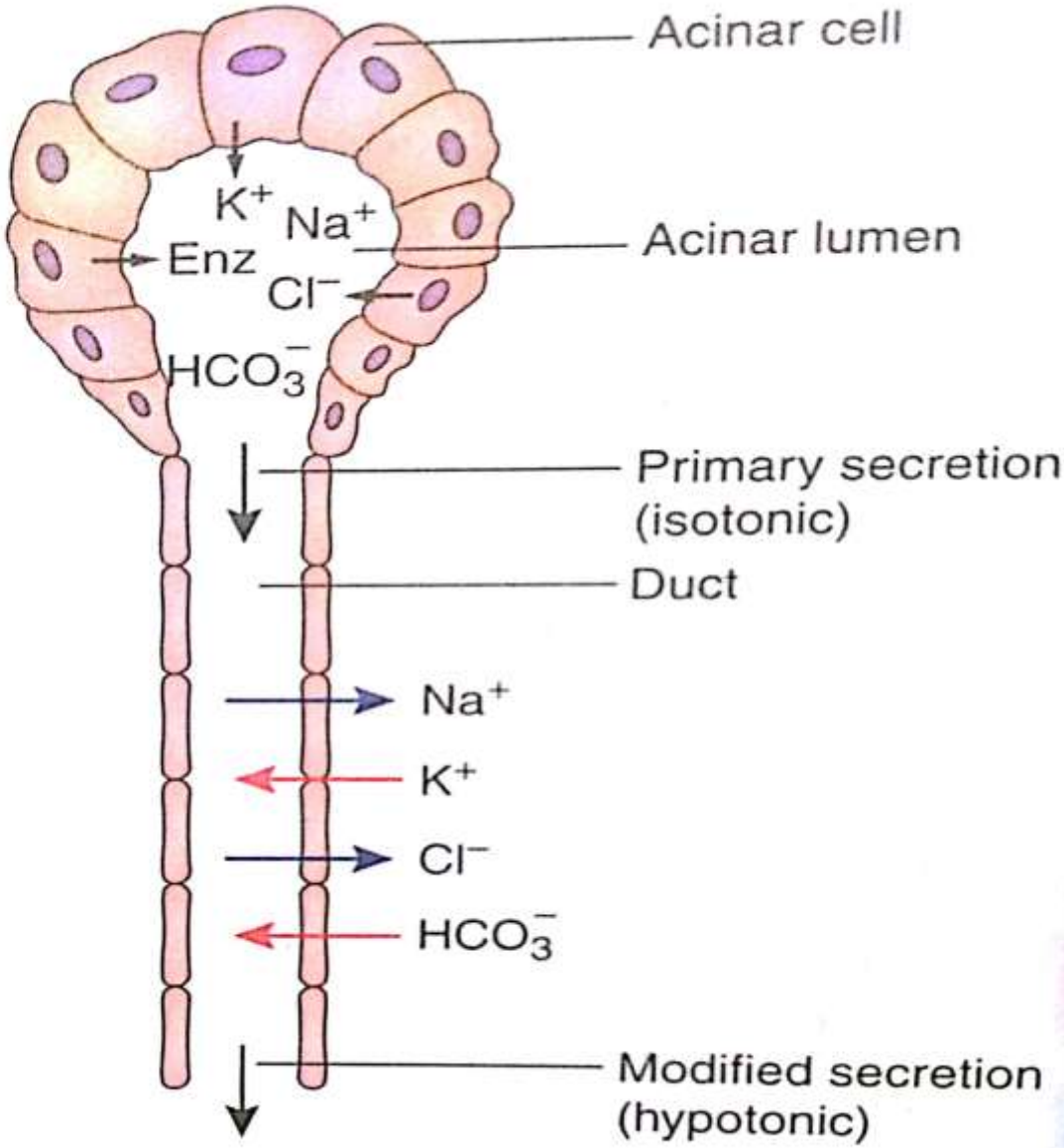


Fig. 7.2-2 Mechanism of formation of saliva.

Functions Of Saliva

1.Oral Hygiene Maintenance- During awake condition, 0.5 ml of saliva is secreted & it helps in maintaining oral hygiene by:

- Continous flow of secretion
- Saliva destroy bacteria by proteoloytic enzyme, lysozyme & thiocyanite ions
- It contains protein antibodies which destroy bacteria

2. Softening of food & bolus formation

3. Lubrication Of Oral Cavity
4. Taste
5. Salivary Amylase helps to digest starch partially
6. Helps in speech
7. Salivary HCO_3 helps to buffer acid in stomach
8. In lower animals like dog, panting causes evaporation of saliva & thus regulates body temperature
9. Prevents dental caries & decay
10. Excretion Function

Applied

I. Mumps
II. Xerostomia
III. Sialorrhoea

SIALORRHOEA

- Increased saliva
- Droling
- Increased swallowing
- **Drugs responsible-**
  - Alprazolam
  - Xanax
  - Amiodarone
  - Clozapine
  - Digoxin
  - Galantamine
  - Lamotrigine
  - Levodopa
  - Nifedipine

EFFECT OF DRUGS AND CHEMICALS ON SALIVARY SECRETION

- ***Acetylcholine stimulates salivary secretion***
- ***Atropine, Antihistaminic cause inhibition of salivary secretion***