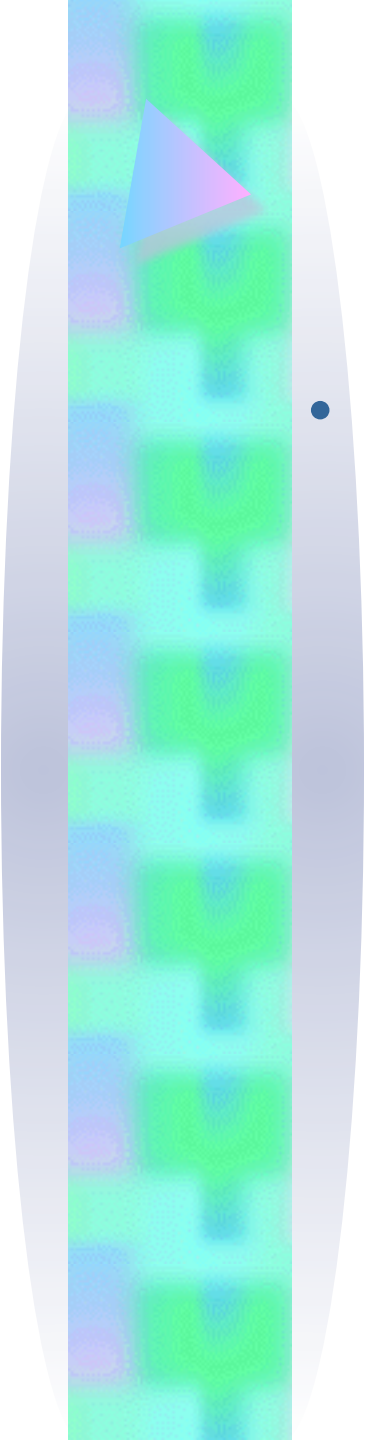
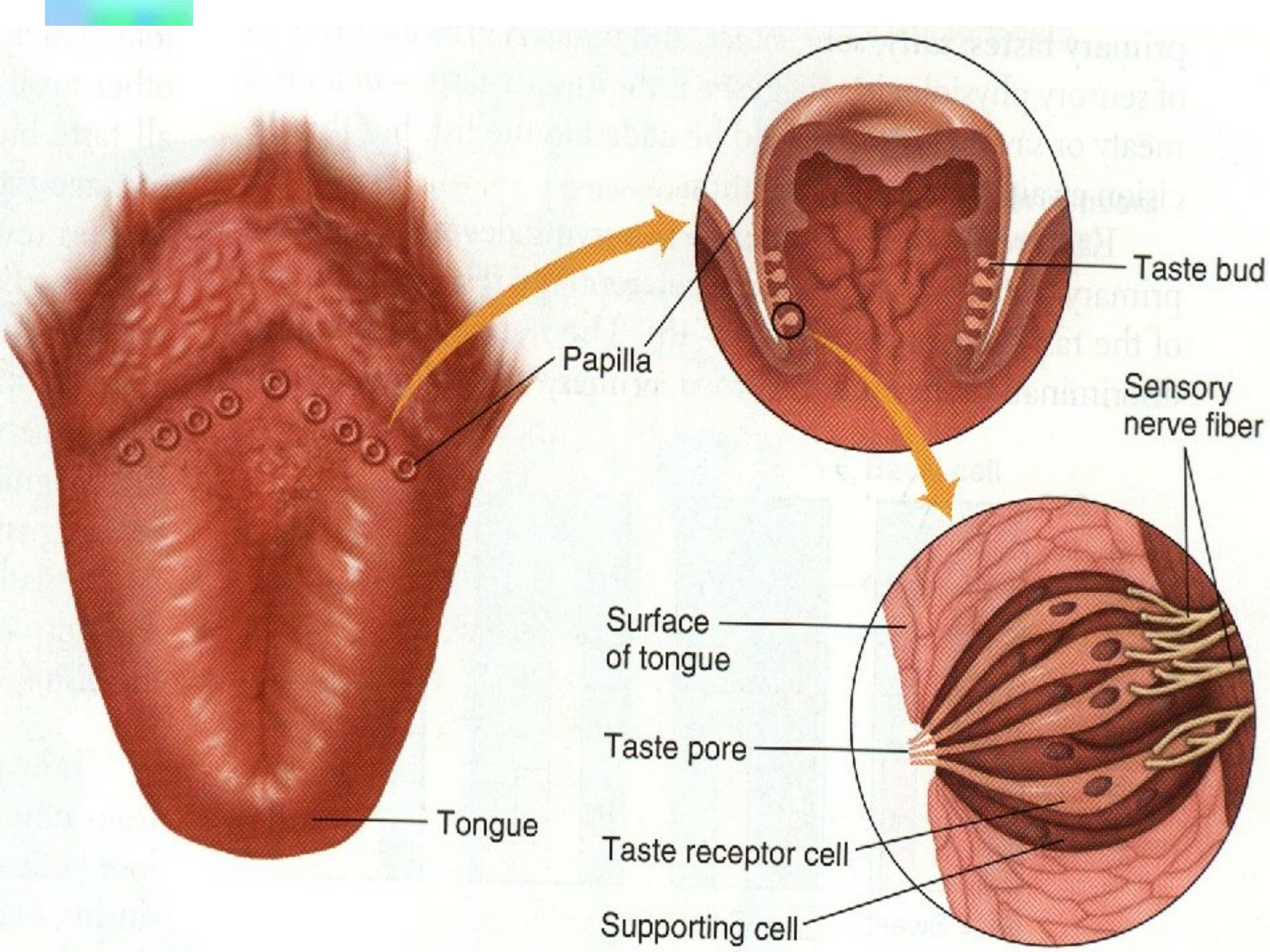


Taste

- 
- **Taste bud is specialised receptors in the oral cavity but mainly on the tongue, some on the palate**



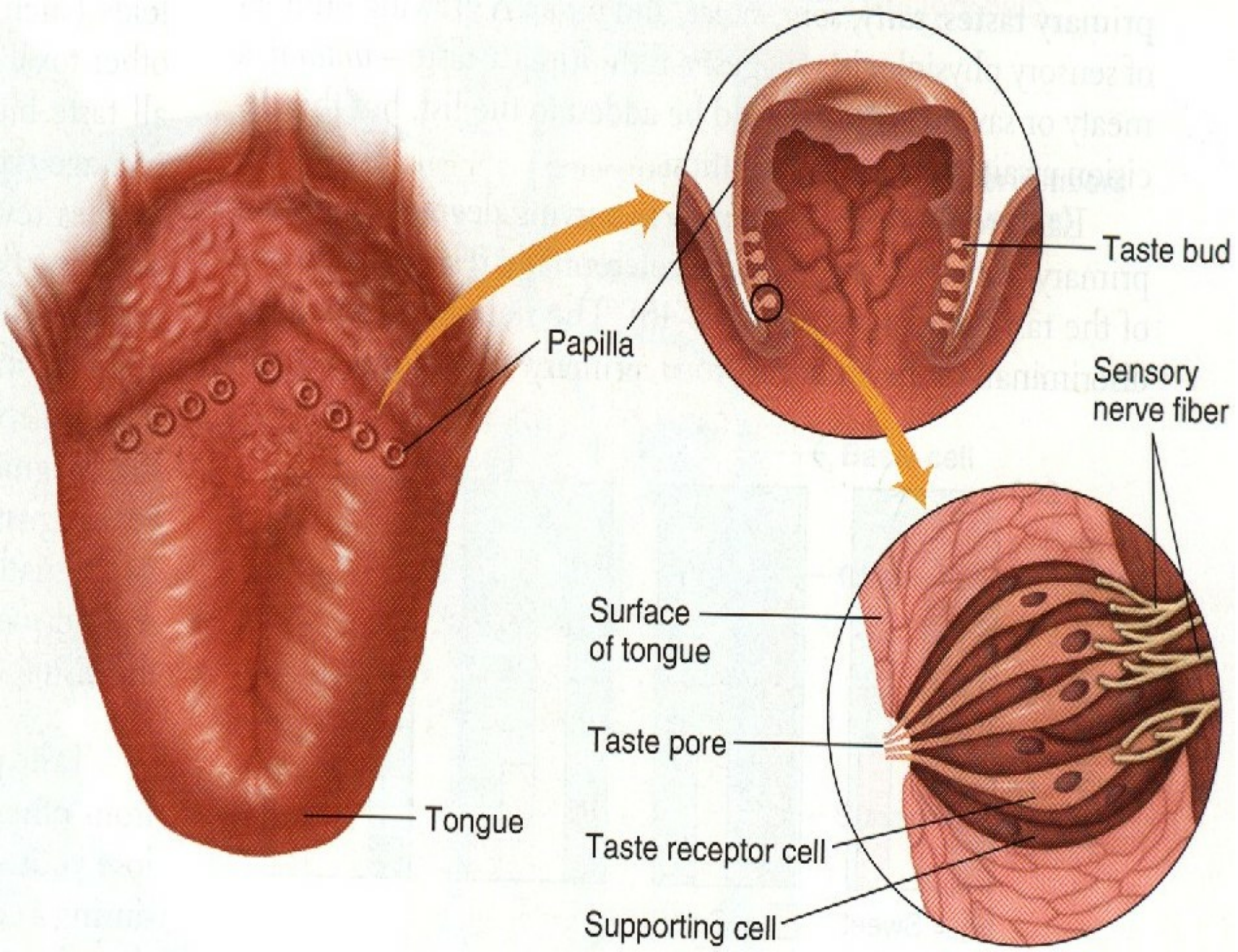
# Taste Receptors





# Types of papillae (projection)

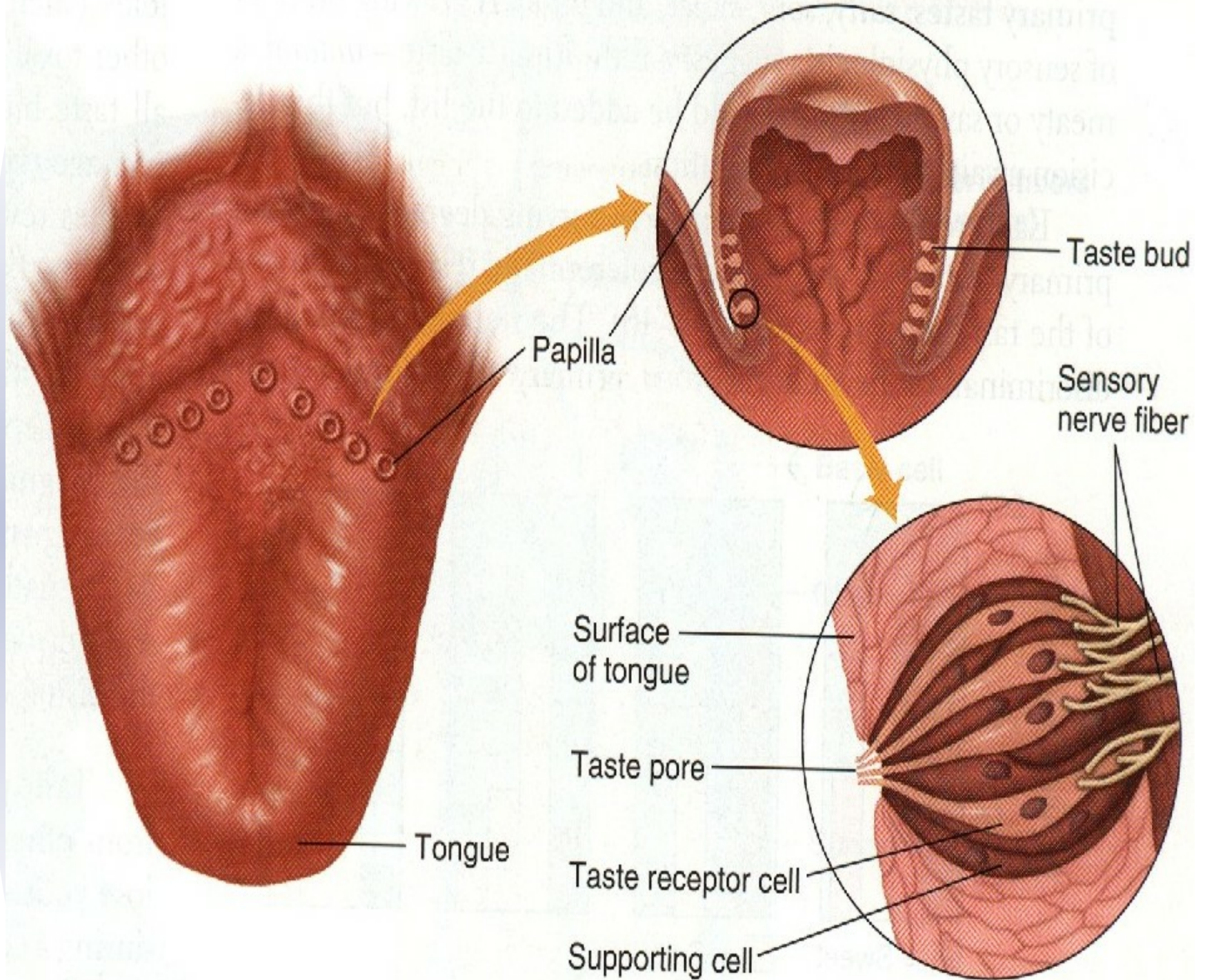
- **Filiform**
- **Fungiform**
- **Circumvallate**
- **No taste buds on the mid dorsum of the tongue**





# Anatomy

- **Taste bud : gustatory cells with microvilli (gustatory hair)**
- **They are receptors cells with cilia projected through taste pore in between there are supporting cells**







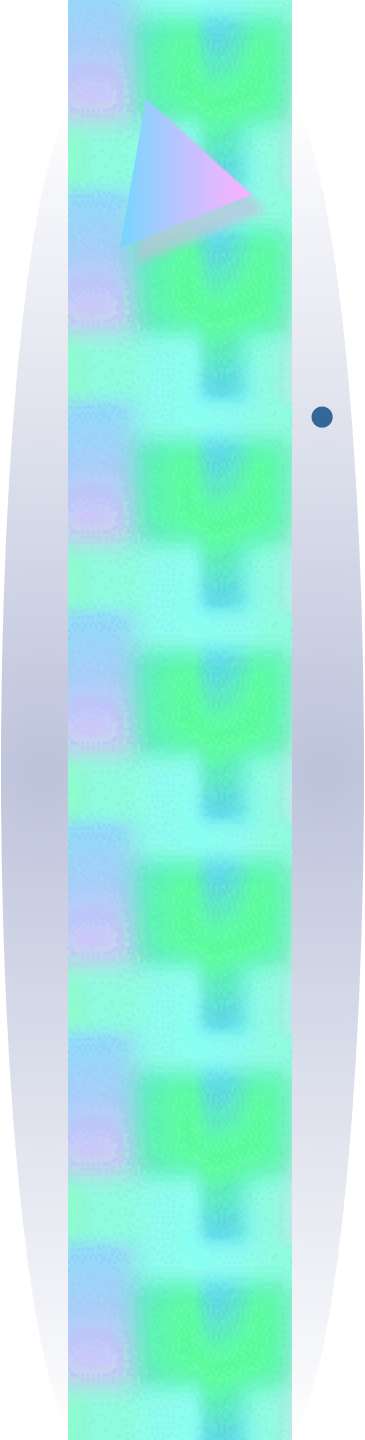
## Taste bud:

- **When stimulated produce nerve impulse to specific brain area through:**
- **Anterior 2/3 of the tongue »»»»» VII**
- **Posterior 1/3 of the tongue »»»»» IX**
- **Receptors on the palate, pharynx, epiglottis »»»»» X**



# Taste pathway

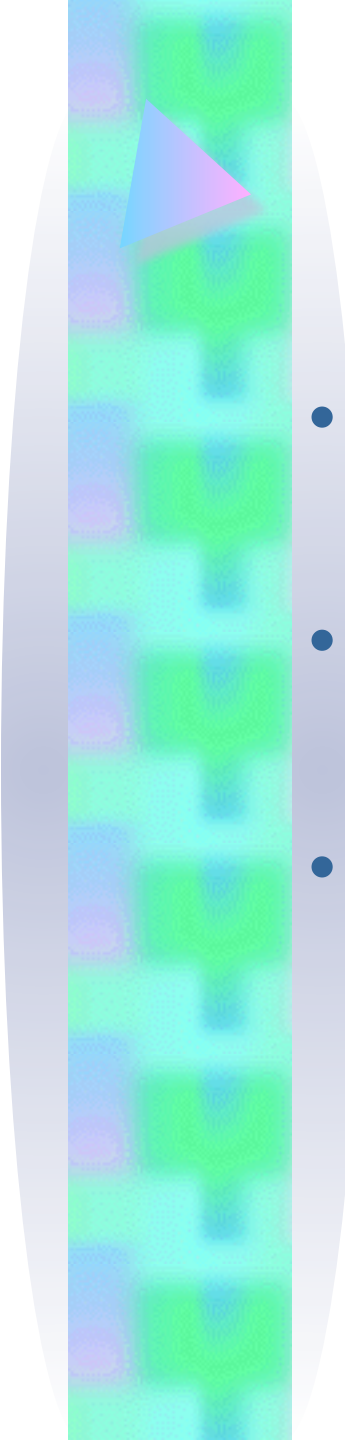
- **First order neurone:**
  - Taste fibres from the three cranial nerves form tractus solitarius »»»»» end in the nucleus of tractus solitarius (medulla)
- **Second order neurone:**
  - From TS cross the midline to ascend in the medial lemniscus to the thalamus

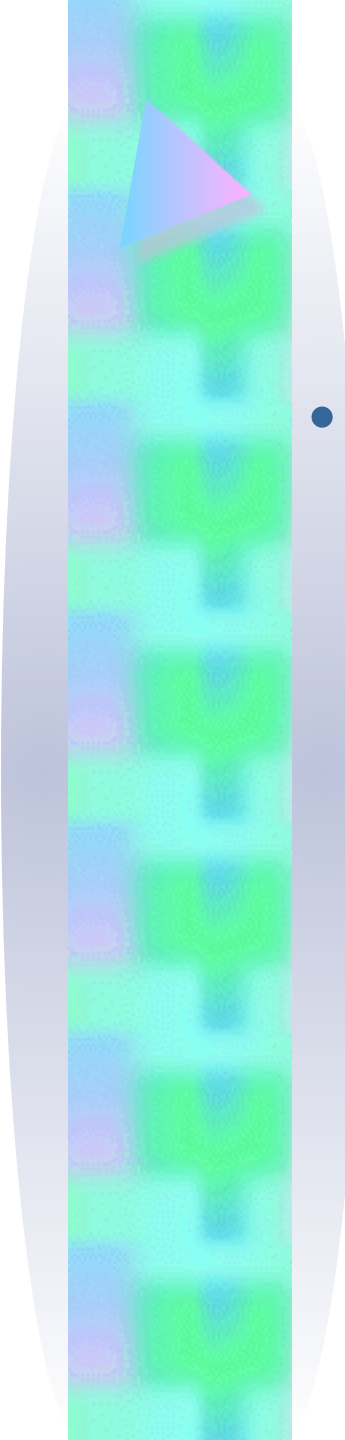
- 
- **Third order neuron:**
    - from thalamus project the cerebral cortex through thalamic radiation



# Taste sensation

- **Molecules dissolve in the saliva  
»»»»»» attached to receptors on cilia  
of gustatory cells »»»»»» receptors  
potential »»»»»» action potential**
- **Combination between molecules and  
receptors are weak (since taste can  
be easily abolished by washing  
mouth with water)**

- 
- **Sweet receptors respond to »»»»»» sugar, saccharine, some amino acids**
  - **Sour receptors respond to »»»»»» H ion**
  - **Salty receptors respond to »»»»»» salts**

- 
- **Distribution of taste buds on tongue not uniform**
    - **sweet - tongue tip**
    - **sour - tongue margins**
    - **bitter - back of tongue**
    - **salt - widely distributed**



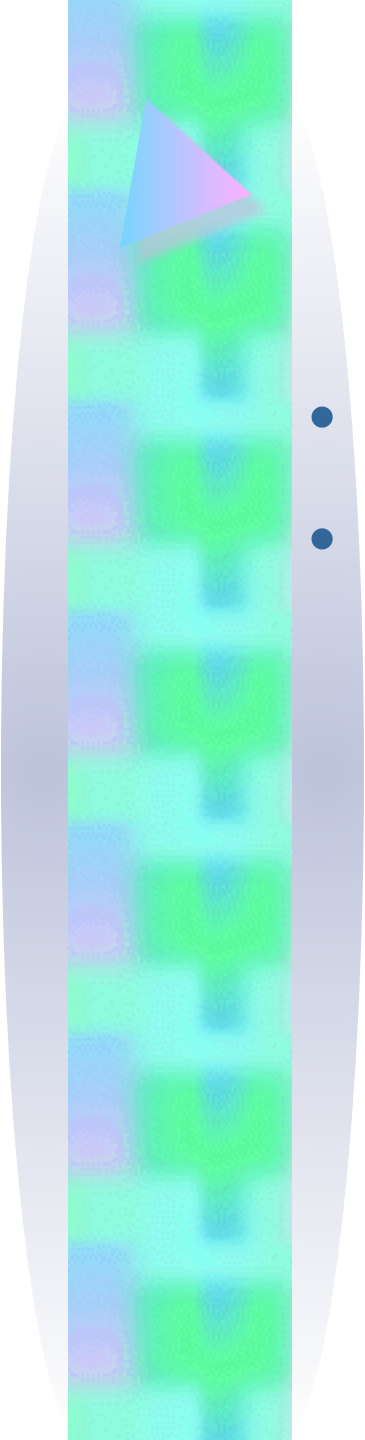
# Pathophysiology

- **Ageusia (complete loss of taste)**

- 
- **Dysgeusia (disturbed taste)**



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- **Hypogeusia**

- 
- **Hypergeusia**
  - **Adrenal insufficiency**