Chapter 17:

Taste Receptors

Each taste bud contains about 40-100 receptor cells and many small stem cells, called basal cells. The basal cells continually divide to produce daughter cells that mature in stages.

Gustatory receptor cells) what the cells ↑ at the last stage are called. Replaced every 10 days.

Taste pore) a narrow opening. Gustatory receptor cells that extend microvilli, sometimes called *taste hairs.*

Gustatory Pathways

Taste buds are innervated by cranial nerves VII (facial), IX (glossopharyngeal), and X (vagus). The combination of taste and smell is what provides the *flavor*, or overall distinctive quality of a particular food or drink.

Gustatory Discrimination

Primary Taste Sensations:

- **Sweet**
- **Salty**
- **Sour**
- **Bitter**

Two Additional Taste Sensations:

- **Umami:** (Japanese for deliciousness) is a pleasant savory taste corresponding to the flavor of beef broth, chicken broth, and Parmesan cheese.

- **Water receptors:** in the pharynx. Sensory output of these receptors is processed in the hypothalamus.