Tongue

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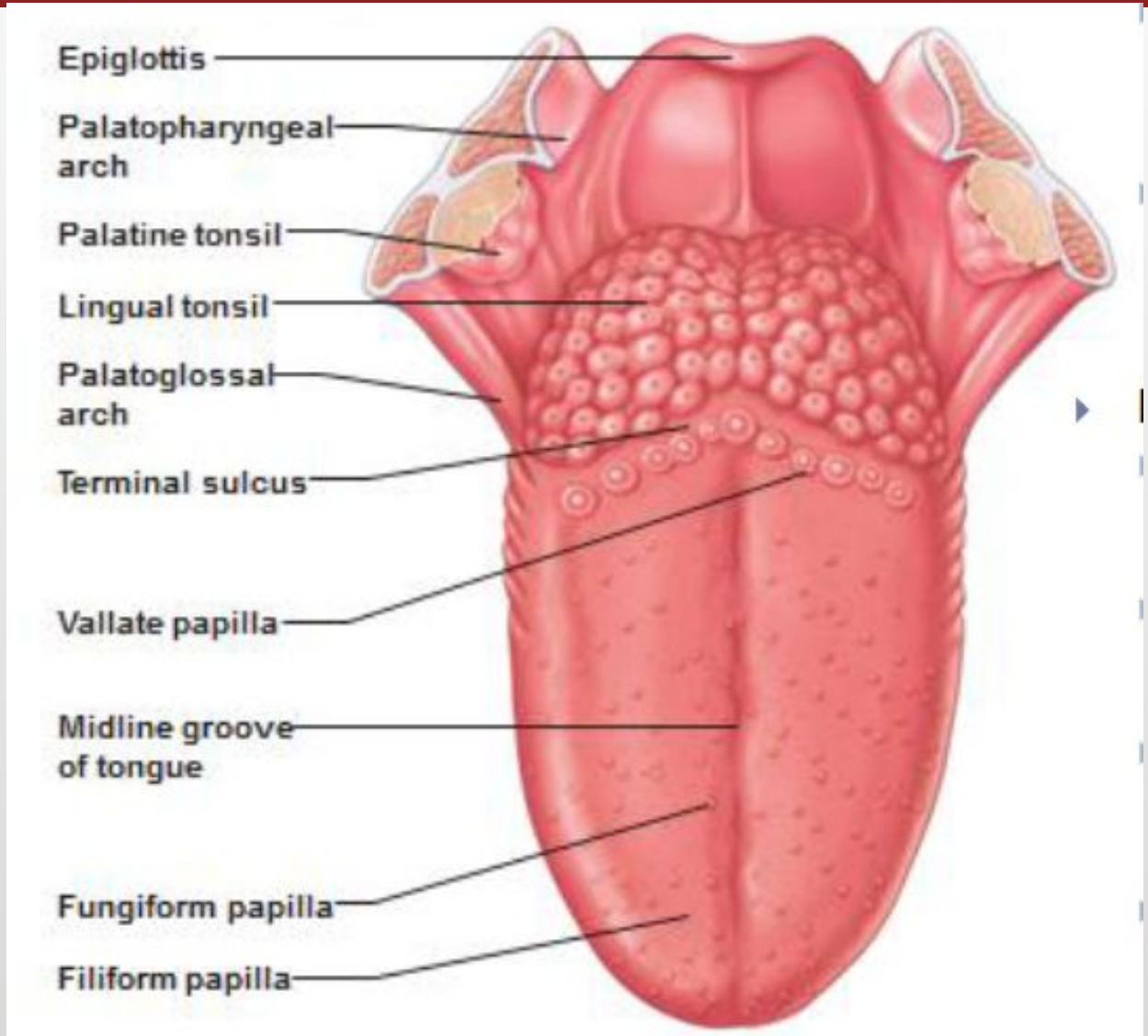
CLASS: 8C

Structure of the tongue



Information about tongue

- The tongue is a muscular organ in the mouth. The tongue is covered with moist, pink tissue called mucosa. Tiny bumps called papillae give the tongue its rough texture. Thousands of taste buds cover the surfaces of the papillae. Taste buds are collections of nerve-like cells that connect to nerves running into the brain.

Information about tongue

- The tongue is anchored to the mouth by webs of tough tissue and mucosa. The tether holding down the front of the tongue is called the frenum. In the back of the mouth, the tongue is anchored into the hyoid bone. The tongue is vital for chewing and swallowing food, as well as for speech.

Information about tongue

- The four common tastes are sweet, sour, bitter, and salty. A fifth taste, called umami, results from tasting glutamate (present in MSG). The tongue has many nerves that help detect and transmit taste signals to the brain. Because of this, all parts of the tongue can detect these four common tastes; the commonly described “taste map” of the tongue doesn’t really exist.

Facts about the tongue

- The tongue has about 10,000 taste receptors.
  - They are called taste buds, but "taste hairs" would be a more accurate name in that these receptors project like hairs from the walls of the tiny trenches that run between the bumps on your tongue.
  - When you eat, the receptors send signals to the brain, which translates the signals into combinations of sweet, bitter, salty, and sour tastes.

Facts about the tongue

- Newborn babies have few taste buds.
  - Soon after birth, more buds begin to grow, an by early childhood they cover the top and some of the bottom of the tongue, as well as areas in the cheeks and throat.
  - Since young children have many more taste buds blooming in their mouths than adults, they frequently find foods to be too bitter or too spicy.
  - Some adults seek out bitter or spicy foods because of a declining number of taste buds.
  - In children and adults, each taste bud lives a matter of days before it is replaced.

Facts about the tongue

- Different parts of the tongue are sensitive to different tastes.
  - The four primary tastes; such as, sweet, bitter, salty, and sour, are each associated with a specific area on the tongue.
  - The tip of the tongue is most sensitive to sweet and salty tastes, while sour seems to register more strongly on the sides of the tongue.
  - Far to the rear of the tongue, grouped in a V-shape, are most of the receptors for bitter tastes.

Facts about the tongue

- The taste buds account for less than twenty percent of the flavors of food.
  - The sense of smell, with its own separate receptors, mostly determines what we experience as taste.
  - The temperature and texture of food also contribute to its overall flavor.
  - Oddly one's sensitivity to saltiness and bitterness seems to increase as food cools, sensitivity to sweetness increases with heat.
  - A piece of chocolate may have very little taste when cold, taste fine at room temperature, but seem unpleasantly sweet when hot and half-melted.

Muscles

- *The eight muscles of the human tongue are classified as either intrinsic or extrinsic*. The four intrinsic muscles act to change the shape of the tongue, and are not attached to any bone. The four extrinsic muscles act to change the position of the tongue, and are anchored to bone.

Papillae

- Papillae contains taste bud (chemo-receptors), which helps us identify between different tastes of food. When we chew food, a portion of it dissolves in the saliva. This dissolved part of food comes in contact with the taste buds and generates nerve impulses. These nerve fibres are known as microvilli. These nerve fibres carry messages to the taste center in the brain. Then brain perceives the taste.

Types of papillae

- There are four types of papillae there,
  - Filiform (thread shaped)
  - Fungiform (mushroom shaped)
  - Foliate (leaf shaped)
  - Vallate (ringed shaped)
- Foliate, Vallate and Fungiform have taste buds which helps in identifying the taste
- Filiform helps in holding the food (to grip the food in place)

Tonsils

- They are present at the back of the tongue.

There are two types of tongue,

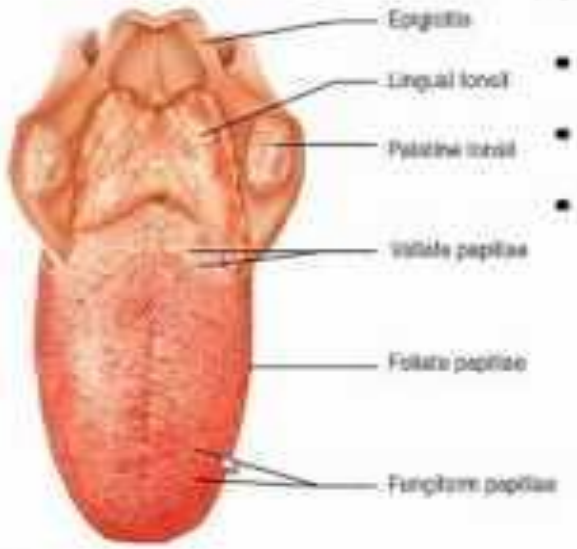
- Lingual tonsils
- Palatine tonsils

Adenoids

- They help in fighting infections.

Video about tongue

Filliform



- They have a filament shape.
- They are the most numerous.
- They are not a taste buds.
- They support and stabilizes.