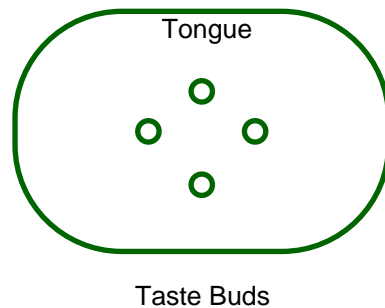


5.2.4 The Tongue and Sense of Taste

The tongue is the sense organ responsible for taste. It contains taste buds that detect different flavors in food and drinks. The tongue also helps in chewing, swallowing, and speaking.

Figure 1: Structure of the Tongue



1. Structure of the Tongue

The tongue is a muscular organ located in the mouth. Important parts of the tongue include: **Taste Buds:** Specialized receptors that detect taste. **Papillae:** Small projections on the tongue surface. **Muscles:** Help move the tongue during speech and swallowing. **Nerves:** Carry taste impulses to the brain.

2. Types of Taste

The tongue can detect several basic tastes: **Sweet Sour Salty Bitter Umami (savory)** Taste buds respond to dissolved substances in food and drinks.

3. How Taste Occurs

When food enters the mouth, chemicals dissolve in saliva. Taste buds detect these chemicals and produce nerve impulses. The impulses travel through sensory nerves to the brain where taste is interpreted.

4. Functions of the Tongue

The tongue performs many important functions: Detects taste. Helps mix food with saliva. Supports swallowing. Helps in speaking and pronunciation. Assists chewing during digestion.

5. Importance of Taste

The sense of taste is important because it: Helps identify nutritious and harmful foods. Improves appetite and enjoyment of food. Supports digestion. Warns against spoiled or poisonous substances.

6. Problems Affecting the Tongue

Some common tongue problems include: Mouth ulcers and infections. Loss of taste due to illness. Burns from hot food and drinks. Damage caused by poor oral hygiene.

7. Care of the Tongue

Proper tongue care is important for good health: Brush the tongue gently during oral hygiene. Avoid very hot foods and drinks. Eat balanced foods rich in vitamins. Drink enough clean water. Seek medical treatment for infections.

8. Summary

The tongue is the organ responsible for taste. Taste buds detect different tastes. The tongue also helps in speaking and swallowing. Taste helps identify good and harmful foods. Proper oral hygiene protects the tongue.

9. Questions and Answers

1. What is the function of the tongue?

The tongue helps detect taste, speak, and swallow food.

2. What are taste buds?

Taste buds are receptors that detect taste.

3. Name the five basic tastes.

Sweet, sour, salty, bitter, and umami.

4. How does taste occur?

Taste occurs when dissolved chemicals stimulate taste buds.

5. Why is the sense of taste important?

It helps identify nutritious and harmful foods.

6. What may cause loss of taste?

Illness or tongue infections may cause loss of taste.

7. How can the tongue be cared for?

By maintaining good oral hygiene and eating healthy foods.

Conclusion

The tongue is an important sense organ that helps humans taste food and perform speech and swallowing. Understanding the tongue and sense of taste helps students appreciate the importance of healthy feeding and oral hygiene.