

The Sensory Evaluation of Food

Chapter 6

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The Sensory Evaluation of Food

Objectives

- Explain how various influences affect food choices.
- Describe sensory characteristics that affect food preferences.
- Plan a setting for successful sensory evaluation.
- Explain the role of sensory evaluation in the food industry.
- Explain the relationship between sensory characteristics and nutrition.

Vocabulary

- Flavor
- Garnish
- Monosodium glutamate
- Mouthfeel
- Olfactory
- Sensory characteristics
- Sensory evaluation
- Sensory evaluation
- Sensory evaluation panels
- Taste blind
- Taste buds
- volatile



What Influences Food Choices?

- Culture and Geography
- Emotions and Psychology
- Beliefs
- Health Concerns
- Food Costs
- Technology

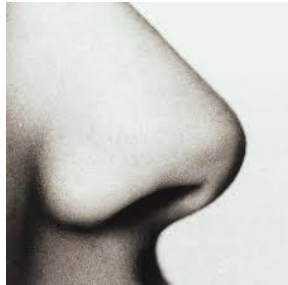




Sensory Evaluation: A Scientific Approach



- **Sensory evaluation** – scientifically testing food, using the human senses of sight, smell, taste, touch and hearing.



- **Sensory characteristics** – the qualities of a food identified by the senses. How it looks, tastes, smells, sounds and feels when eaten.



Flavor and Appearance

- **Flavor** – distinctive quality that comes from a food's unique blend of appearance, taste, odor, feel, and sound.

Appearance-Based on habit and preconceived notions

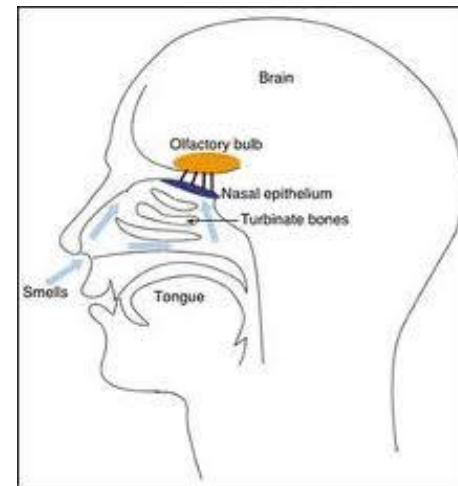
- **Garnish**- a decorative arrangement added to food or drink





Taste and Odor

- **Taste blind** – unable to distinguish between the flavors of some foods. (if you have a cold, you can't taste your food)
- **Taste buds** – sensory organs located on various parts of the tongue
- **Monosodium glutamate** – a salt that interacts with other ingredients to enhance salty and sour tastes.
- **Olfactory** – related to the sense of smell
- **Volatile** – substances that are easily changed into vapor when heated and add to the odor.





Comparison Chart



Bitter

- Coffee, bitter melon, unsweetened cocoa, citrus peels.
- Bitterness of substances is compared with bitter taste threshold of quinine which is 1.
- Unpleasant and disagreeable taste.
- Bitter flavors are recognized by taste buds at the back of tongue, throat and palate.

Sour

- Lemon, orange, grape, melon, wine and sour milk.
- Sourness taste threshold is rated with respect to dilute hydrochloric acid which has a value of 1.
- Sharp taste that indicates acidity of substance.
- Taste buds at the sides of tongue recognize sour taste.



Texture



- **Texture** – soft, brittle, grainy, chewy, hard, tender, dry, etc...
- **Mouthfeel** – how a food feels in the mouth
- **Sound** – crunchy foods need to sound crunchy, crackers you don't want to be soggy.



+ Sensory Evaluation



- Sensory evaluation panels – groups of people who evaluate food samples
- Three main groups
 - Highly trained experts
 - Laboratory panels
 - Consumer panels

+ Experiment 6

- Taste Recognition

