



Marilyn Magaram Center

Food Science • Nutrition • Dietetics



Nutrition
Experts

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Whole Body Whole Health

Sense Your Health: Taste

Nutrition
Experts

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Our Mission

To enhance and promote good health and well-being through research, education and services in food science, nutrition and dietetics





American Culinary Federation



NEIGHBORHOOD PARTNERS IN ACTION



Working Within Our Community

- Schools to incorporate nutrition & lifestyle intervention techniques
- National and international collaborations
- Programs (50+) and research projects (20+) funded by federal, state, and private grants & donations
- Collaborating with (50+) various community partners reaching more than 70,000+ community participants

Presenters



Housekeeping

We welcome all your questions and comments.

Try to write them down and ask at the end.

We can only answer general nutrition questions. For specific medical nutrition therapy, we will refer you to your medical provider and Registered Dietitian Nutritionist (RDN).

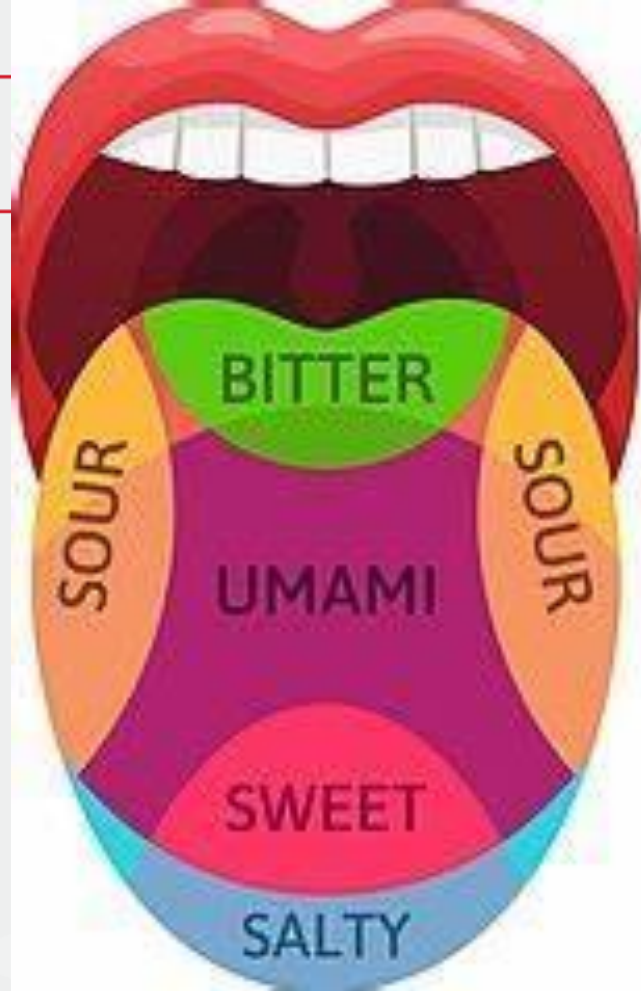
Learning Objectives

Learn how our sense of taste affects our health

How taste buds and gustatory system work, how it relates to the whole body

How to manage changes in taste

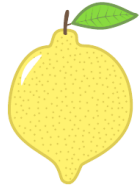
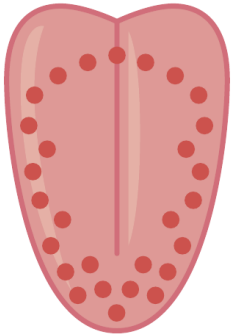




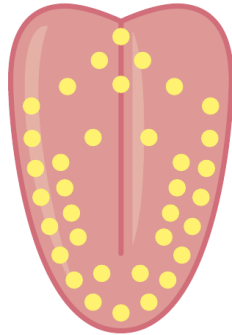
OUR TONGUES CAN DIFFERENTIATE BETWEEN THESE FLAVOURS



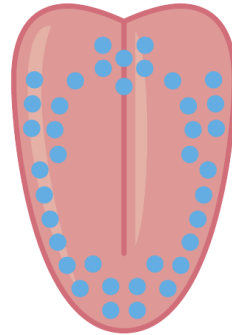
SWEET



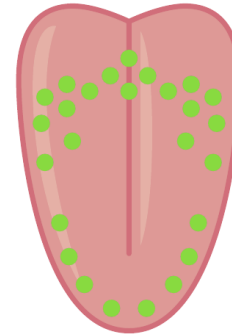
SOUR



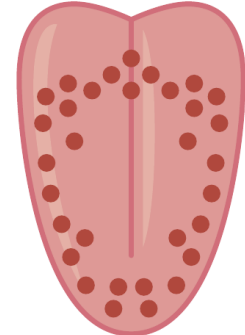
SALTY



BITTER



UMAMI



Gustatory cortex
(in insula)

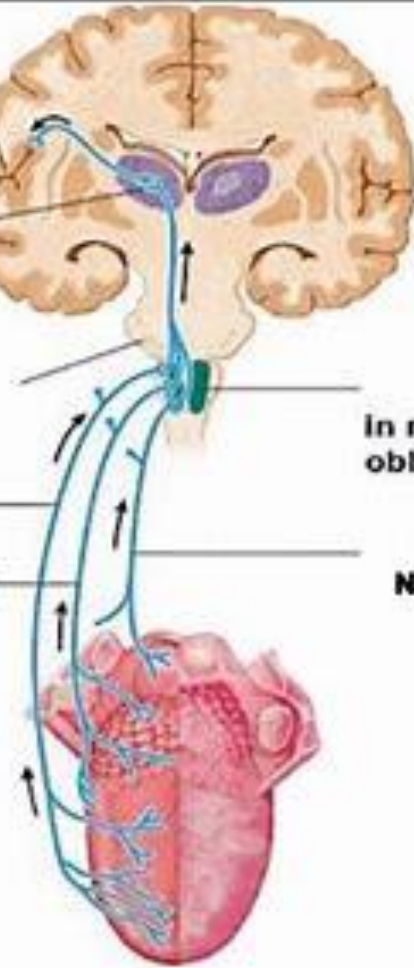
Thalamus

Facial
nerve (VII)

Glossopharyngeal
nerve (IX)

In medulla
oblongata

Vagus
Nerve (X)

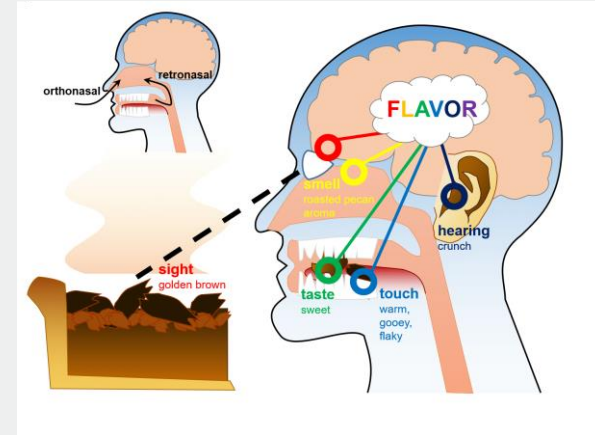


Tasting with a Purpose

- Our brains send us signals to continue or to stop eating certain foods based on their flavors
- If we didn't have the ability to taste food, we would have a hard time eating enough every day

Changes in Taste

- Sometimes treatment can cause a change in tastes
 - Foods can suddenly taste metallic
 - Foods you used to love now tastes bad
 - Loss or diminished taste



Changes in Taste

- This is called “Dysgeusia”
- Can sometimes be accompanied by dry mouth, or “Xerostomia”
- Can be caused by certain cancer medications, radiation therapy to the head/neck area, inflammation, nutrition deficiencies, sometimes by metabolic disorders or viral infections (COVID-19)
 - Or can be caused by a loss of smell

Managing Dysgeusia and Xerostomia

- For *lack of taste* add lemon/citrus or vinegar to foods
- If foods taste *bitter* add sweeteners or honey, or have cold or at room temperature
- For foods that tastes are too strong, try *bland* foods
- If food tastes *metallic* or sharp, try adding fat and add a little salt on top



Managing Dysgeusia and Xerostomia

- If flavors are too strong, try bland foods
- Eat starchy foods such as bread, potatoes, rice and plain pasta.
- Eggs, cheeses (including cottage cheese) hot cereals, puddings, custards, tapioca, cream soups, toast, potatoes, rice and peanut butter are less likely to taste strange than foods with more distinctive flavors



Managing Dysgeusia and Xerostomia

- For any or all taste changes, try swishing & swallowing (or spitting) plain carbonated water
 - Before, during, and after meals
- Marinate foods in different flavors, add lots of sauces
- Remember F.A.S.S. technique for flavor improvement:
 - extra virgin olive oil (the Fat)
 - lemon juice (the Acid)
 - sea salt (the Salt)
 - grade B organic maple syrup (the Sweet)



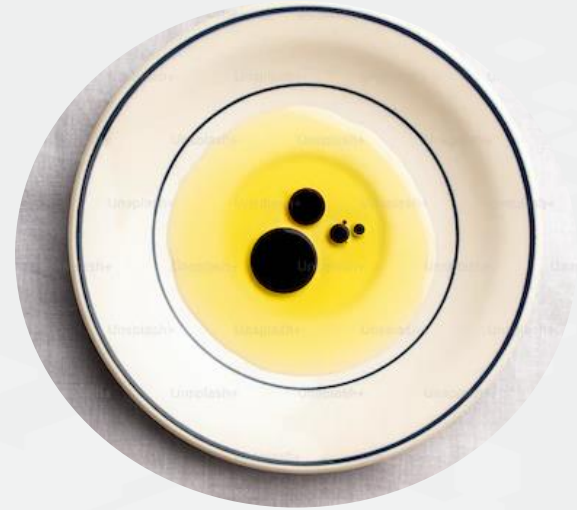
Managing Dysgeusia and Xerostomia

- Experiment with different herbs, spices, flavorings
 - Spicy/hot peppers only if you tolerate it
- Don't forget to stay hydrated
- Try sucking on hard candy, mint, or gum (sugar-free)
- Mouth hygiene – brushing teeth after meals, flossing, regular visit to dentist
 - Make sure there are not cuts or sores.
 - Seek treatment if there are.



Managing Dysgeusia and Xerostomia

- If you're avoiding acid due to mouth sores
 - Add a little fat (olive oil), sweet flavoring (maple syrup).
 - The fat creates a coating action that smoothes over mouth sores
 - The sweet stimulates the taste buds to help boost appetite
- Try drinking calories via smoothies/shakes, protein drinks
- Can be treated by: changing medications, or correcting nutritional deficiencies



Oral Mucositis

- Mouth Sores/Ulcers
 - Avoid hot or hard foods
 - Choose soft and bland foods
 - Instant oatmeal, grits, pancakes (cut into small pieces), cold cereal that has been softened in milk, cottage cheese, ricotta cheese, yogurt, pudding, ice cream, custard, macaroni and cheese, mashed white or sweet potatoes, rice or risotto, applesauce, gelatin, smoothies.
 - Medicated syrups to coat the mouth
 - Swish and swallow with L-glutamine
 - Drink from straw
 - Swish ice water with ice chips while undergoing treatment for prevention

Oral Mucositis

- Discuss all symptoms with your oncology team
- If any medication side effect decreases your quality of life, let your team know
 - Medications oftentimes can be switched to something different that would be equally beneficial without the side effects
 - Every body is different and has different reactions
 - Your oncologist would not know unless you tell them.

Cancer and Nutrition

- Any side effect that affects what and how you eat is important
 - Because it can affect your nutrition status
- Having enough micronutrients, calories, protein, fat, carbs is important to provide energy and promote healing
- Weight loss may delay cancer treatments or make healing harder.



Cancer and Nutrition

- This is the time to focus on nourishing ourselves
- Not only does food provide the nutrients, mealtimes can provide joy
- When you taste food, try practicing mindfulness
 - Pay attention to the different tastes
 - Do you taste sour, sweet, bitter...where do you notice the tastes on your tongue?
 - Do they make you feel a certain way? Bring back certain memories?





Activity: Sensory Analysis and Mindfulness



Thank you!