

# Topics for Today

Deliciousness

What is Taste

What is Flavor

Cooking Techniques

Review



**Chef Rebecca Peizer**  
C.E.C., C.H.E.

# Taste vs. Flavor

the Pathway to Deliciousness

Do we all live in the same world?



# Memories of Food

What childhood memories do you have of food?

Positive?

Negative?

How does thinking about them make you feel?

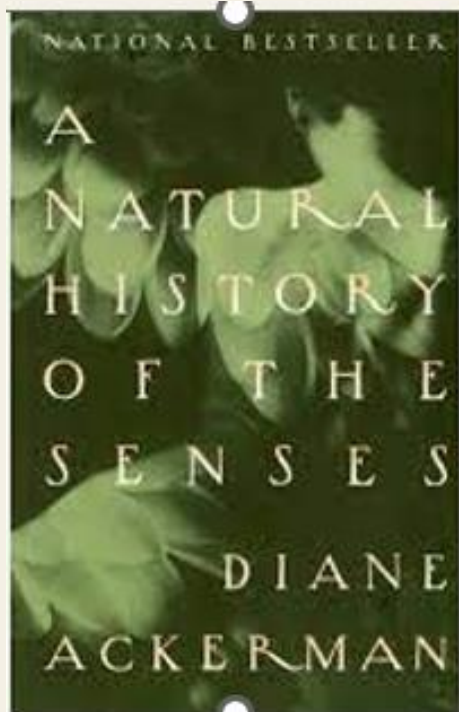


- After we Taste the food...
- Is our experience different than we created in our first impression?
- We refer to past experiences
- This is the Chef's opportunity to control the experience



# Taste

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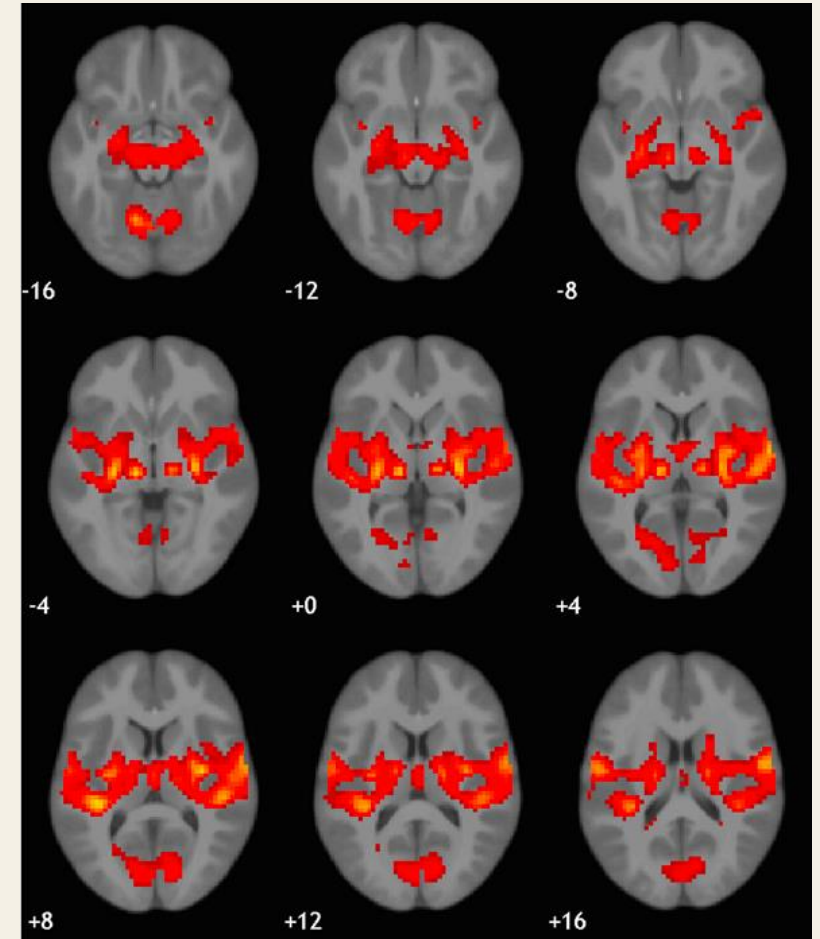


... is a big source of pleasure in most lives, a complex realm of satisfaction both physiological and emotional, much of which involves memories of childhood.”

Source: Ackerman, Diane, A Natural History of the Senses

# Our brain tells us a story about what is going to happen.....

- Pleasurable sensory experiences (good meal, a hug) stimulate hedonic hotspots
- We eat because we are hungry. We dine for pleasure
- Creates a loop of pleasurable experience that fades once the stimulus decreases or stops
- Eating lesser delicious food will end the pleasure



# Thomas Keller's "Law of Diminishing Returns"



- "Our whole menu is based on the law of diminishing returns.
- The most compelling portion of a dish is in the first three or four bites.
- With the first bite you're getting into it, by the second bite you start to realize it, and it is at the third or fourth bites you get the maximum appreciation and pleasure from that dish...
- and you keep eating because of that *memory* of it being really extraordinary.
- But was it as good [at the end] as it was at that second, third or fourth bite? No."

# Adaptation and Palate Fatigue

- After tasting the same thing multiple times, our brain becomes fatigued with similar sensory information and creates false readings (palate fatigue)
- But.....if the simplest combinations trigger memories of pleasure, lust and love with every bite....
- Then why is it that all it takes is one bad oyster to make you steer clear of this food for life?

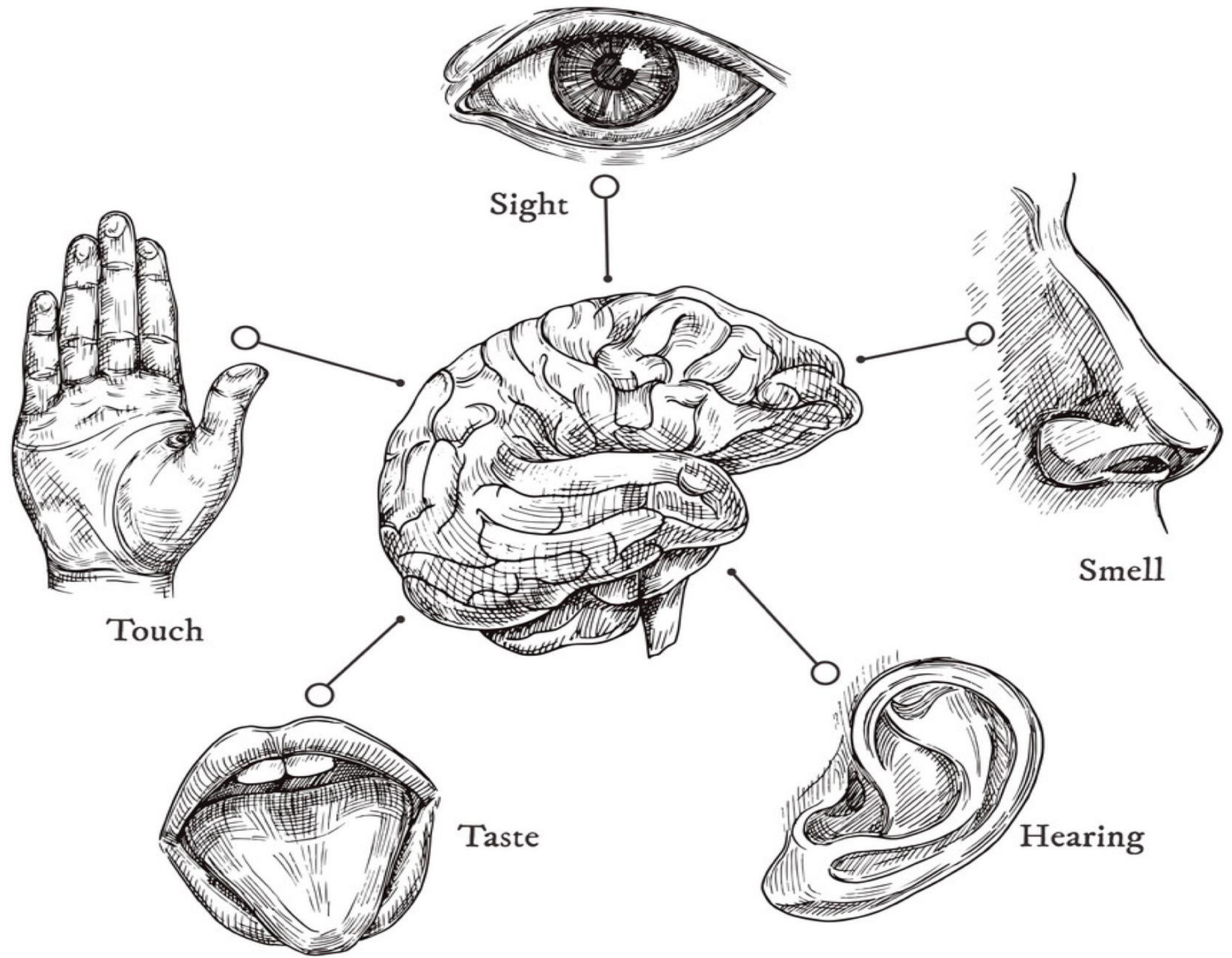
The “wow what are you cooking, that smells so good” starter pack:





**Because:**

**We eat  
with  
ALL  
our  
senses**



**We see the food. We are curious. We believe we know what to expect**

**“Eating” has already begun**



**Our mouth begins to expect a sensation  
Based on past experiences  
Our palate moistens**

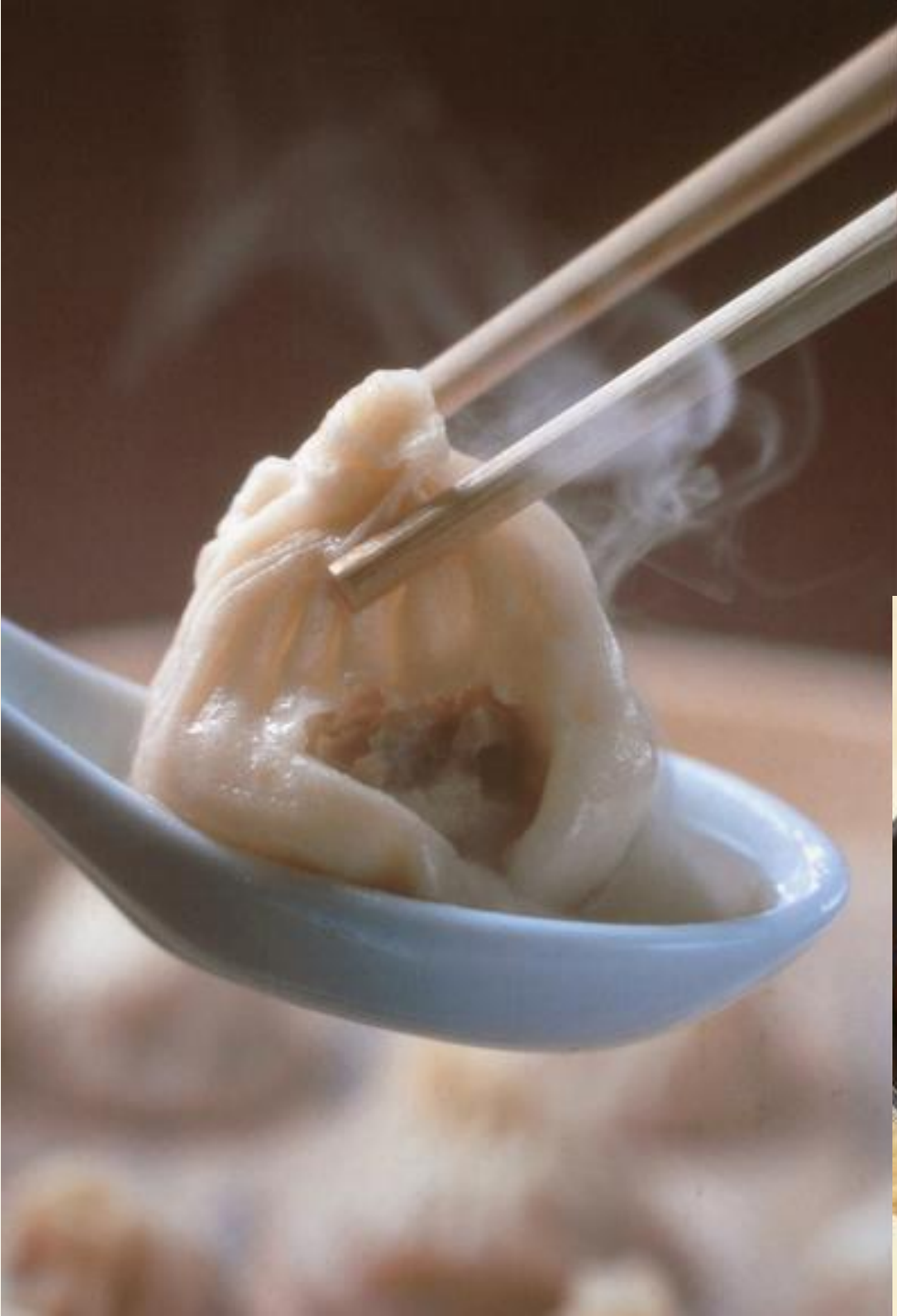
**What foods make your mouth water just SEEING  
or THINKING about it?**

# Seeing Flavor

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- Bright Colors Indicate Freshness / Proper Doneness
- Juicy Looking Hints at Succulence
- Steaming Foods Imply Hot Foods





# Taste Buds

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The tongue acts as one of our gatekeepers by helping us distinguish between good and toxic substances, consequently guiding our food choices.



- Regenerate Every 7 - 10 Days
- Influenced by
  - Age,
  - Medication,
  - Pregnancy,
  - types of foods you eat
- They readily “learn” to love the foods they’re with
- All tastes are acquired, except sweet since sugars are the foundation of the earth’s food chain

# Acquired Taste

Something that you do not like at first but that you begin to like after trying it a few times...

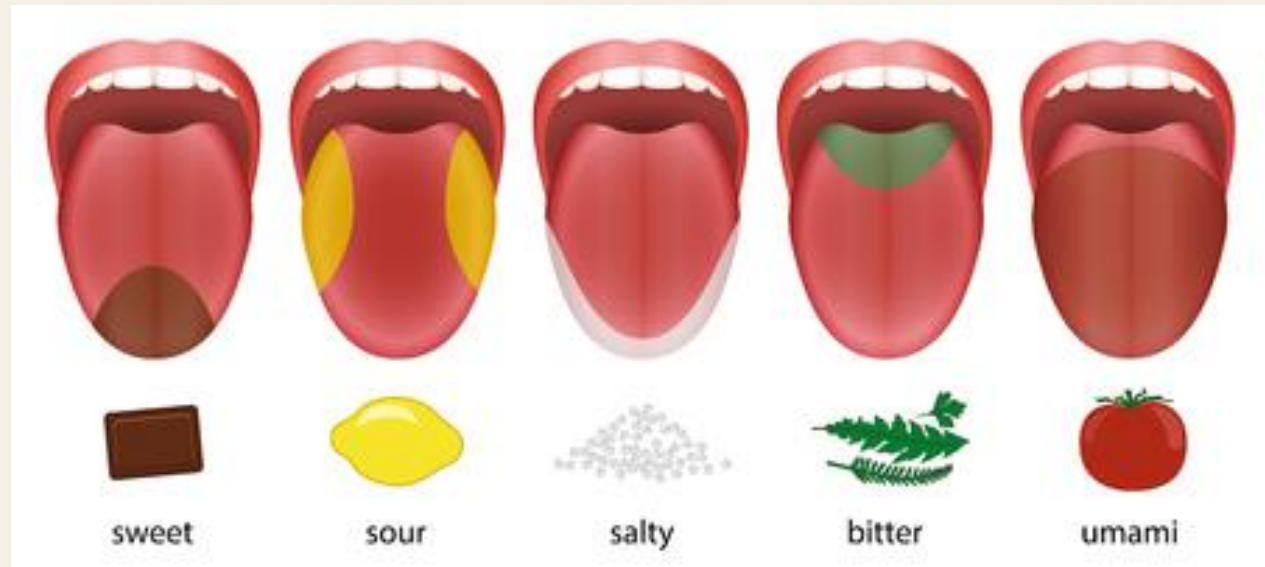


"I didn't always like caviar.  
It's an acquired taste."

[www.Idioms.Online](http://www.Idioms.Online)

# The “TASTES”

- SWEET
- SOUR
- SALTY
- BITTER
- UMAMI



# What Taste Means...

- **Sweet** -- signals ripeness in fruit
- **Sour**-- indicates underripe or spoiled
- **Salty** -- indicates minerals / or electrolytes
- **Bitter** -- signals poison
- **Umami** -- can indicate protein





# Mixture Suppression

- When the basic tastes are combined, they mask each other
- Perceived intensity is suppressed
- Pesto has ALL the tastes... but together? HARMONY
  - Basil
  - Garlic
  - Cheese
  - Nuts



# *UMAMI* Means ‘**Deliciousness**’

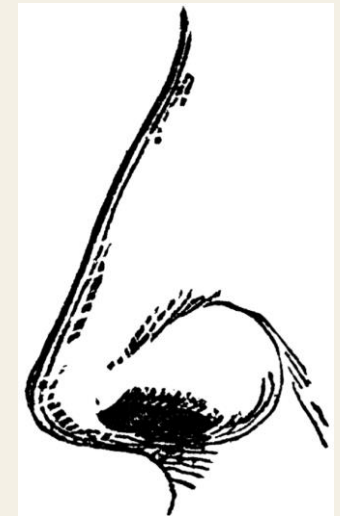
- fish sauce
- ripened cheese
- aged meat
- fermented
- mushroom, dried
- dry/cured fish
- cured meat
- browned meat
- browned vegetables



# Taste + Aroma = Flavor

## How are aromas used to entice customers?

- The smell of freshly baked bread, coffee, popcorn
- The aroma of cinnamon buns in the airport
- French fries at a fast food drive through
- Onions, Garlic and Simmering Soup



*Sometimes the nose picks up aroma  
before any other senses engage*

# Experiencing Flavor

- Are you surprised to hear that you can also...
  - Hear flavor
  - Smell flavor
  - Feel flavor



Flavour is multifaceted sensory experience involving, taste, smell, touch, temperature, sound, sight, and pain that we perceive when consuming food” (Delwiche, 2004)

# Hearing Flavor

- The sounds that food makes influences the perception of its flavor
  - Sizzling platter of fajitas
  - Fizzle of champagne
  - Crunchy potato chips
  - Crisp apples

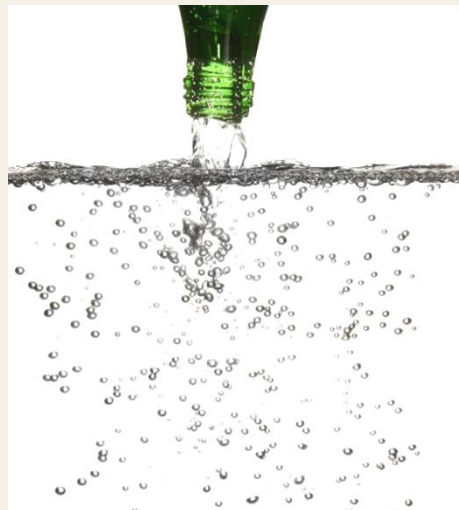


# Feeling Flavor

“Carbonation”

“Cool”

“Spicy/Hot” pain



# Crunchy vs. Chewy

- Chocolate chip cookies
  - Is there a difference in flavor?



# Crispy vs. Crunchy

- Lay's potato chips
  - Initial sound and texture quickly lost
- Kettle Chips
  - More sustained echo of texture throughout





# How Cooking Techniques Affect our Perception of Flavor

## DRY

- Bake
- Roast
- Saute, Stir Fry
- Grill
- Fry

## MOIST

- Steam, Boil,
- Poach, Simmer



# Cooking Plants- “Root to Stem”

**We can eat all parts of the plant**

- Roots
- Stems
- Leaves
- Flowers
- Seeds
- Fruits



# Plant Pigments

- Small molecules create a variety of colors
- Some soluble in water, some in fat
- Different sensitivities cause breakdown
- The more colorful, the more nutritious
- Can You Taste COLOR???



# Cellulose and Lignin

- Structural components of cell walls
- Resistant to heat breakdown
- Must be destroyed by long cooking, fermentation, or physical means



# But Why Cook Plants at All?

- Palatability
- Digestibility
- Some nutrient retention
  
- Changes that Occur
  - Flavor
  - Texture
  - Water content

Cooking breaks down the plant's cell walls, releasing more of the antioxidants and nutrients bound to those cell walls.



ROASTED



AIRFRYER



BLANCHED



# Effects of Cooking Techniques

STEAMED



MICROWAVED

RAW



BOILED

SAUTÉED



what do you notice

what does it mean?



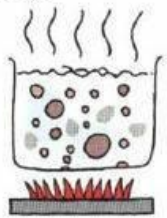
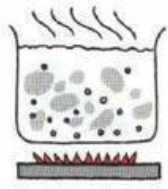

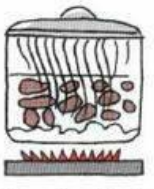


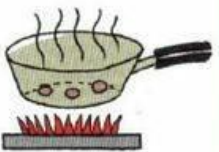

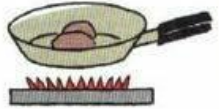
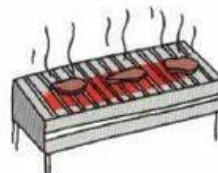


# Cooking Methods

Each technique delivers a result at varying levels of intensity

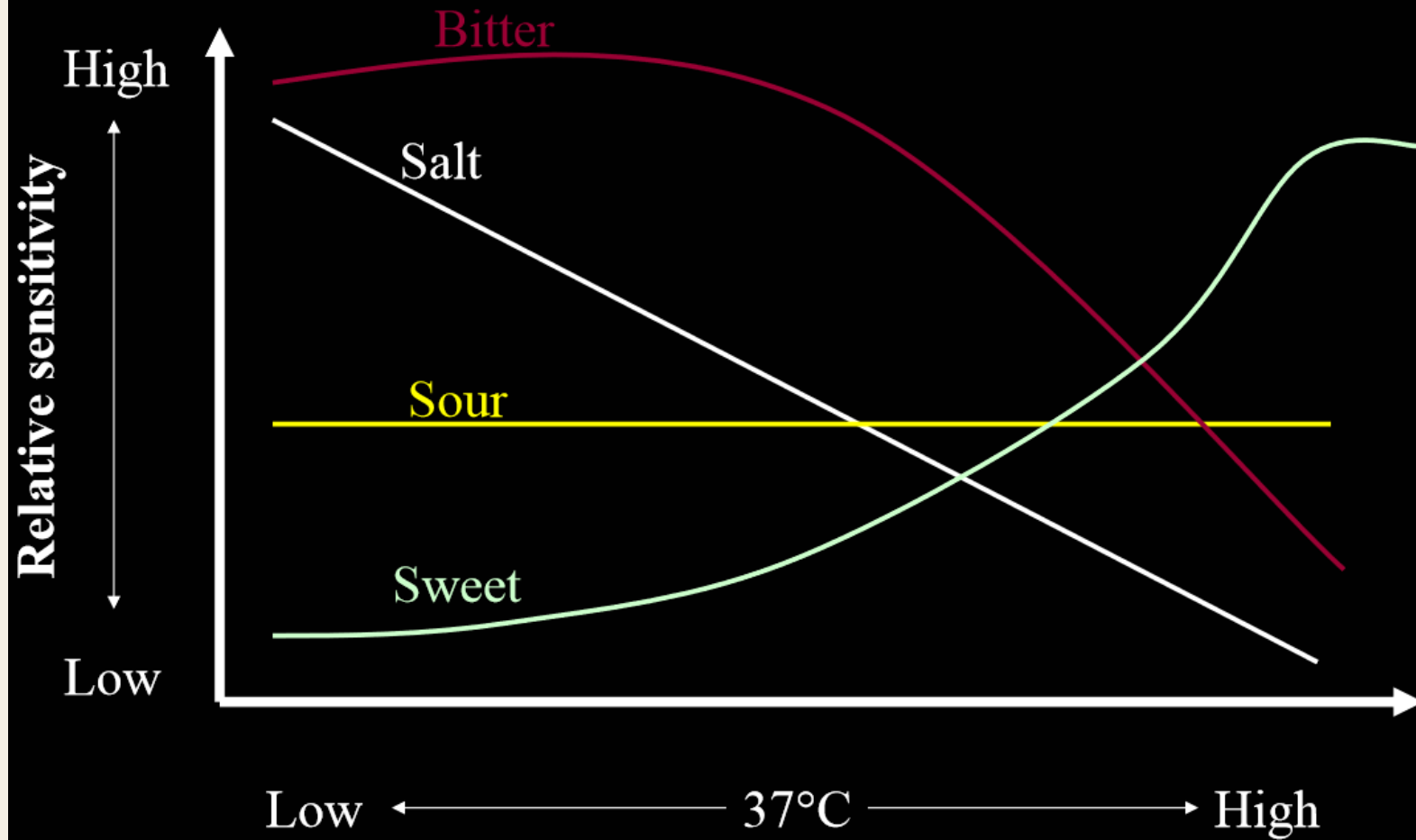
Certain textures are derived

Offers a vast variety of experiences

Creates expectations

<p><b>Boiling</b></p>  <p>Food is cooked in deep boiling liquid [water, stock, wine etc.] in an open or covered saucepan.</p>	<p><b>Simmering</b></p>  <p>Like boiling, but the liquid is kept just below boiling point in an uncovered pot.</p>	<p><b>Steaming</b></p>  <p>Food is placed on a container and cooked in the steam from boiling water in a covered pan or steamer.</p>	<p><b>Stewing</b></p>  <p>Cooking food in its own juices with a little additional liquid, in a covered pan, at simmering point.</p>
<p><b>Braising</b></p>  <p>Pieces of food are first browned in a little fat, then cooked with some liquid in a closed pan.</p>	<p><b>Deep-frying</b></p>  <p>Frying pieces of food in a deep pot or fryer with plenty of hot oil or fat.</p>	<p><b>Sautéing</b></p>  <p>Cooking small or thin pieces of food in a little very hot oil or fat. The frying pan is shaken constantly to stop the food from burning.</p>	<p><b>Flambéing</b></p>  <p>After frying, alcohol is added to the food in the frying pan and set on fire. This gives added flavour to the food.</p>
<p><b>Pan-frying</b></p>  <p>Frying food in a little oil or butter using a frying pan over moderate heat.</p>	<p><b>Broiling/grilling</b></p>  <p>Cooking food like steak or fish, over or under open heat, e.g. under the oven grill, or on a barbecue or hot plate.</p>	<p><b>Roasting</b></p>  <p>Cooking food like meat or poultry with some fat in a hot oven [between 200-240 degrees centigrade].</p>	<p><b>Baking</b></p>  <p>Cooking food like cakes, pies, bread etc. in a closed oven at a temperature of between 120-240°C.</p>

# Effects of temperature on taste perception



Temperature of solution consumed

(Sekuler, 2002)



# How do we Harness Deliciousness? EXPOSURE

Cook often- with a variety of  
foods and methods

Learn and understand why  
food tastes the way that it  
does- develop its story

Repeat the process- it will  
teach you everything you  
want to know

Cook, eat, repeat,  
cook, eat, repeat,  
cook, eat, repeat,  
cook, eat, repeat,  
cook, eat, repeat.

*Ingredients, recipes  
and stories.*

Nigella Lawson

**THANK YOU!**

**Chef Rebecca Peizer, C.E.C. C.H.E.**  
**The Culinary Institute of America**  
**[r\\_peizer@culinary.edu](mailto:r_peizer@culinary.edu)**

**All Things Culinary LLC**  
**[www.all-things-culinary.com](http://www.all-things-culinary.com)**

# THANK YOU



Chef Rebecca Peizer, C.E.C. C.H.E.

The Culinary Institute of America

[r\\_peizer@culinary.edu](mailto:r_peizer@culinary.edu)

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