

# Get Ready for *Mrs. Garcia's Lunch*

1. Go to the back tables and pick up a cup
2. Place one of each item from the tables in your cup
3. Hold the items until Sheila directs you to use them



# Mrs. Garcia's Lunch

And why she won't eat it

Sheila M Campbell, PhD, RD



Mrs. Garcia is a 70 year old woman admitted for rehabilitation following repair of a hip fracture.

She 20 pounds overweight.

She consistently leaves 60-75% of her lunch and dinner meals uneaten.



Is this a problem?



# Reasons

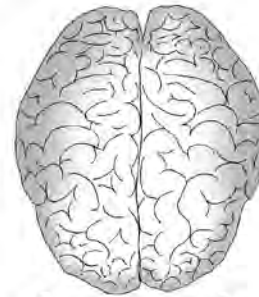
- Anorexia of Aging  
“Loss of appetite, food intake, and body weight that occur near the end of life”



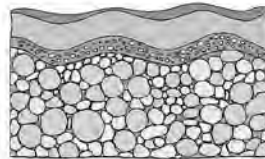
# BRAIN

**KEY**  
APPETITE STIMULANTS  
APPETITE SUPPRESSANTS

AgRP  
MCH  
NPY  
OREXINS  
  
 $\alpha$ -MSH  
CART  
NEUROTENSIN

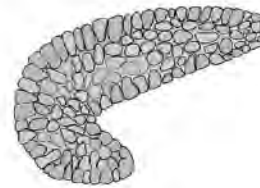


## ADIPOSE TISSUE



ADIPONECTIN  
LEPTIN  
RESISTIN

## PANCREAS



AMYLIN  
GLUCAGON  
INSULIN  
PANCREATIC POLYPEPTIDE

## GASTROINTESTINAL



### GHRELIN

BOMBESIN  
CCK  
GIP  
GLP-1  
OBESTATIN  
OXYNTOMODULIN  
PYY

AgRP=Agouti-related protein  
MCH=melanin-concentrating hormone  
NPY=neuropeptide Y  
 $\alpha$ MSH=alpha-melanocyte-stimulating hormone  
CART=cocaine- and amphetamine-regulated transcript  
CCK=cholecystokinin;  
GIP=glucose-dependent insulinotropic polypeptide;  
GLP-1=glucagon-like peptide 1  
PYY=peptide YY.

# Restricted Diets

- Restricted Diets



**NO DUH!!!!!!**

# Medical Conditions

- Kidney dysfunction
- COPD
- Cardiovascular disease
- Diabetes
- Neuromuscular diseases
- Dementia

# Medications

- Hydrocodone
- Cholesterol-lowering statins
- Lisinopril
- Levothyroxine sodium
- Amlodipine besylate
- Omeprazole
- Azithromycin
- Amoxicillin
- Metformin
- Hydrochlorothiazide



# Meals On Wheels

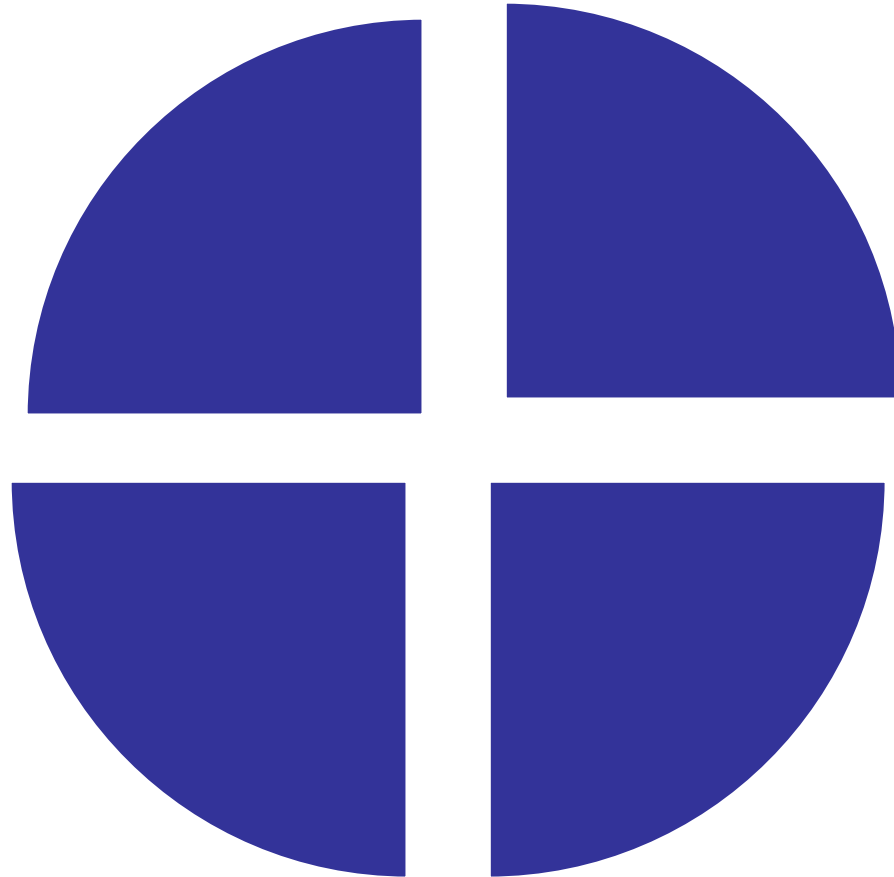
- **M**edication effects
- **E**mootional problems, especially depression
- **A**norexia nervosa, alcoholism
- **L**ate-life paranoia
- **S**wallowing disorders
- **O**ral factors
- **N**o money
- **W**andering
- **H**yperthyroidism, hypothyroidism, hyperparathyroidism, hypoadrenalism
- **E**nteric problems
- **E**ating problems
- **L**ow-salt, low-cholesterol, diets
- **S**ocial problems

# Age-related Changes in the Chemosenses

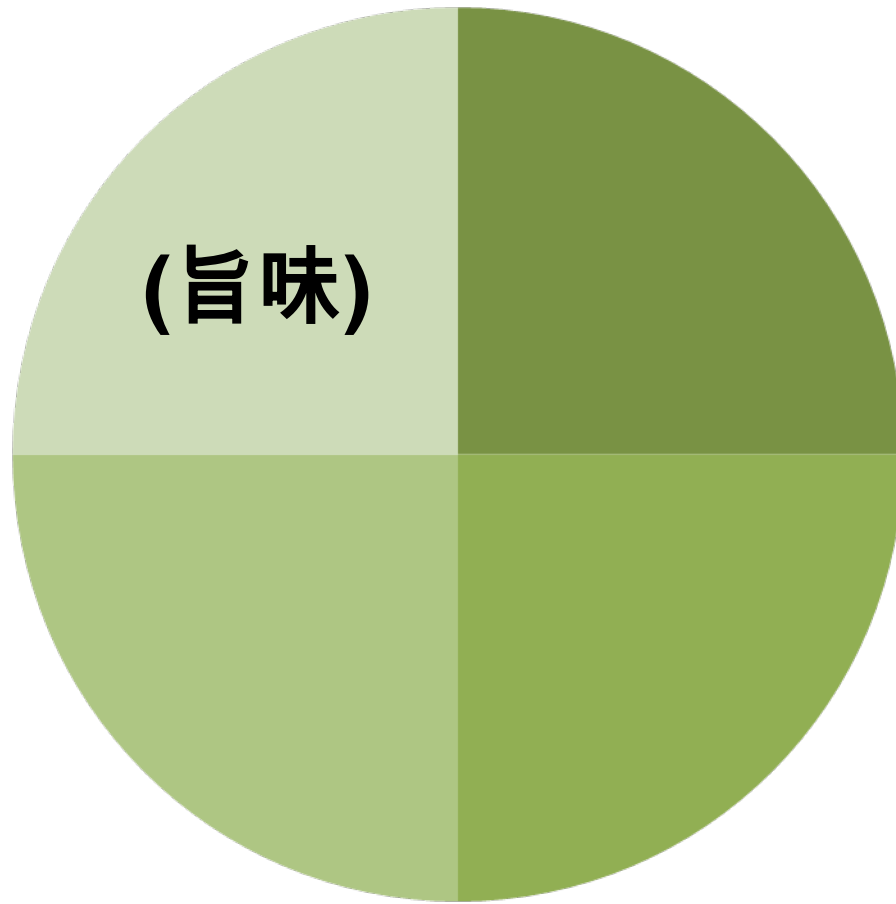


- Senses of taste and olfaction decline
  - 60 years
  - 70 years

# Four Tastes



# *More Tastes*

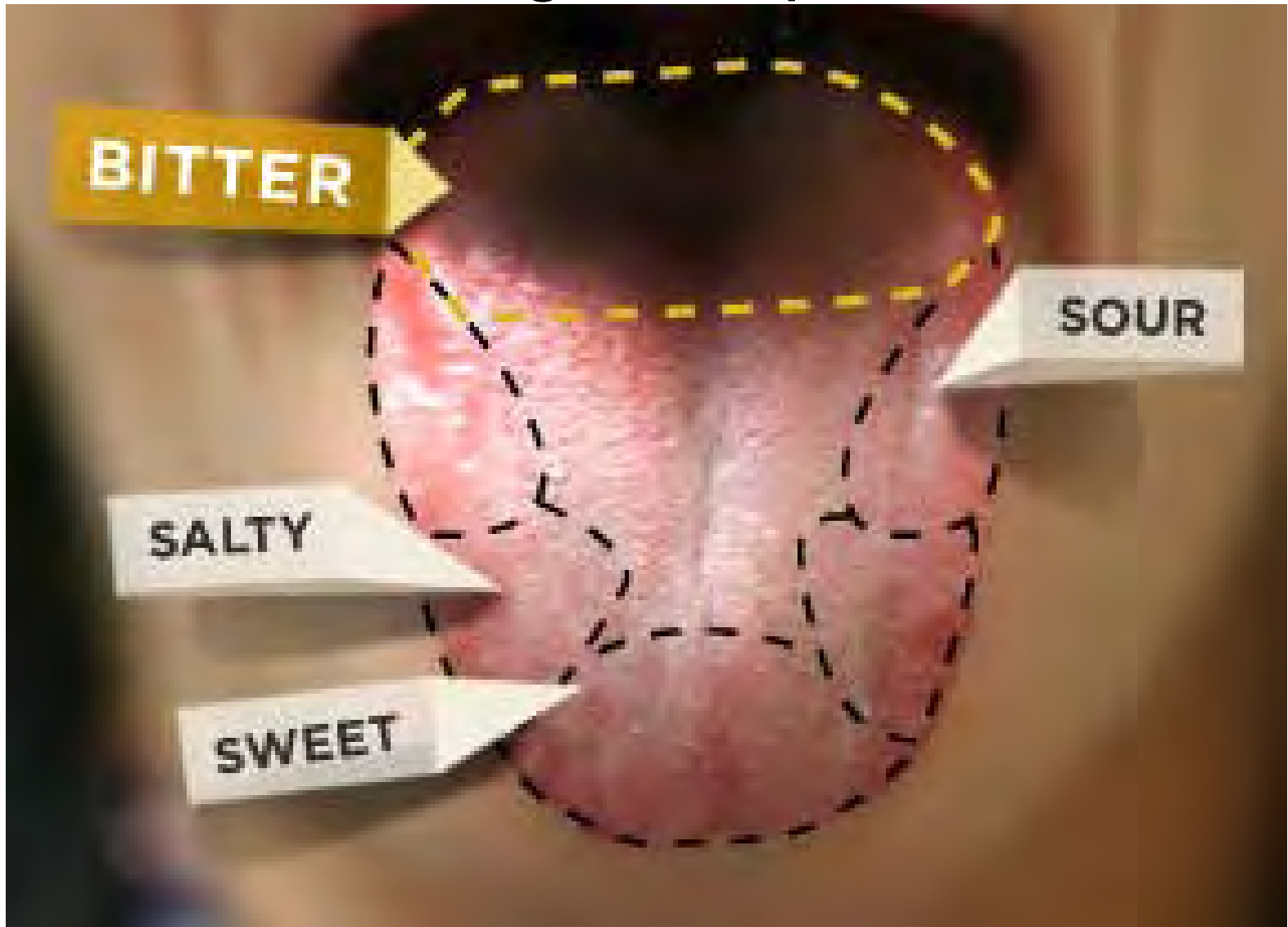


# Four Tastes



Babies develop taste buds at week 22

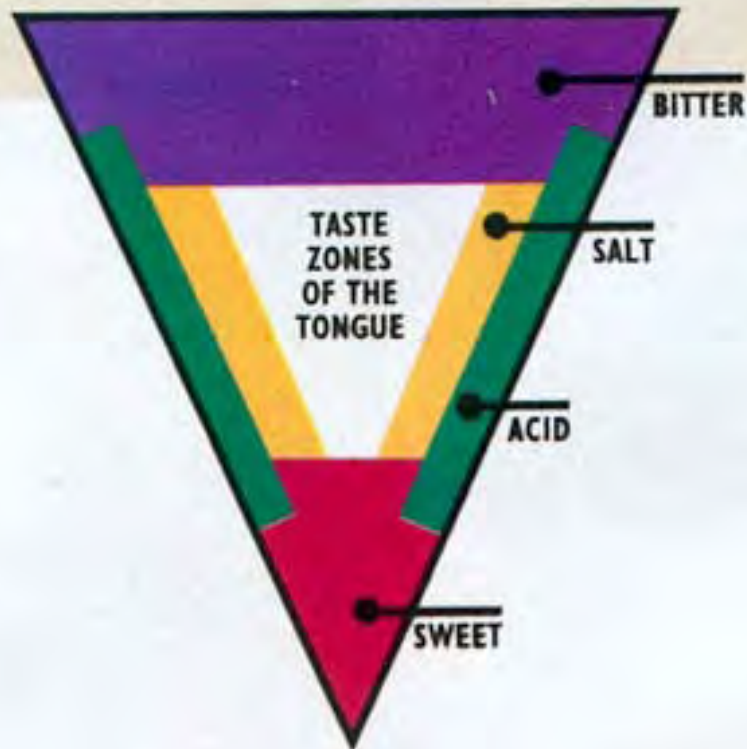
# Tongue Maps



# Great Marketing

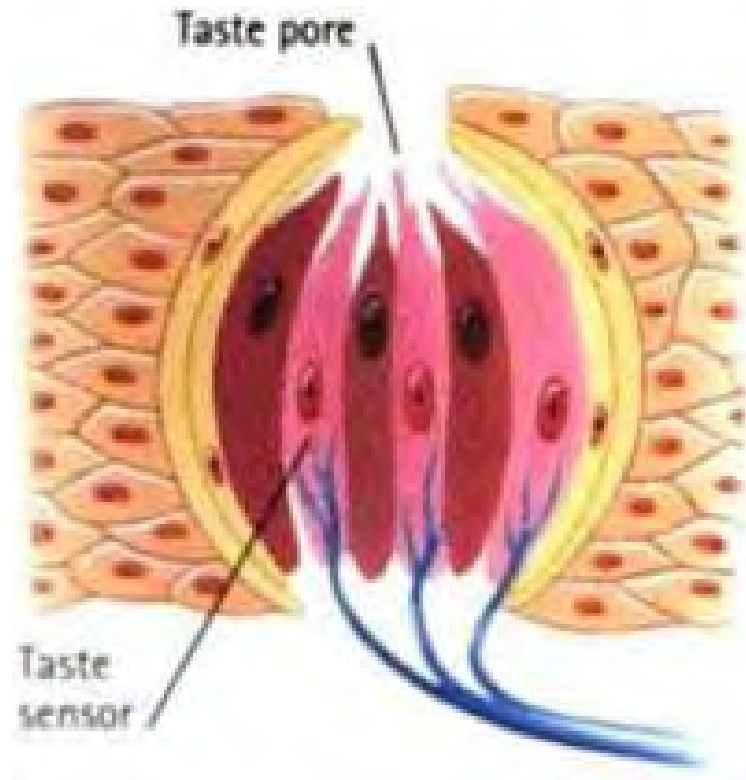
## *Taste and Palate*

The specially designed shape of each glass directs the flow of wine to the proper areas of your palate, emphasizing a wine's best qualities and creating a balanced taste for maximum enjoyment.



**Riedel Vinum Red & White Wine Glass Collection (Set of 8) \$210.00 USD**

# Taste Buds



Are you a super taster?



# Age-related Changes in the Chemosenes

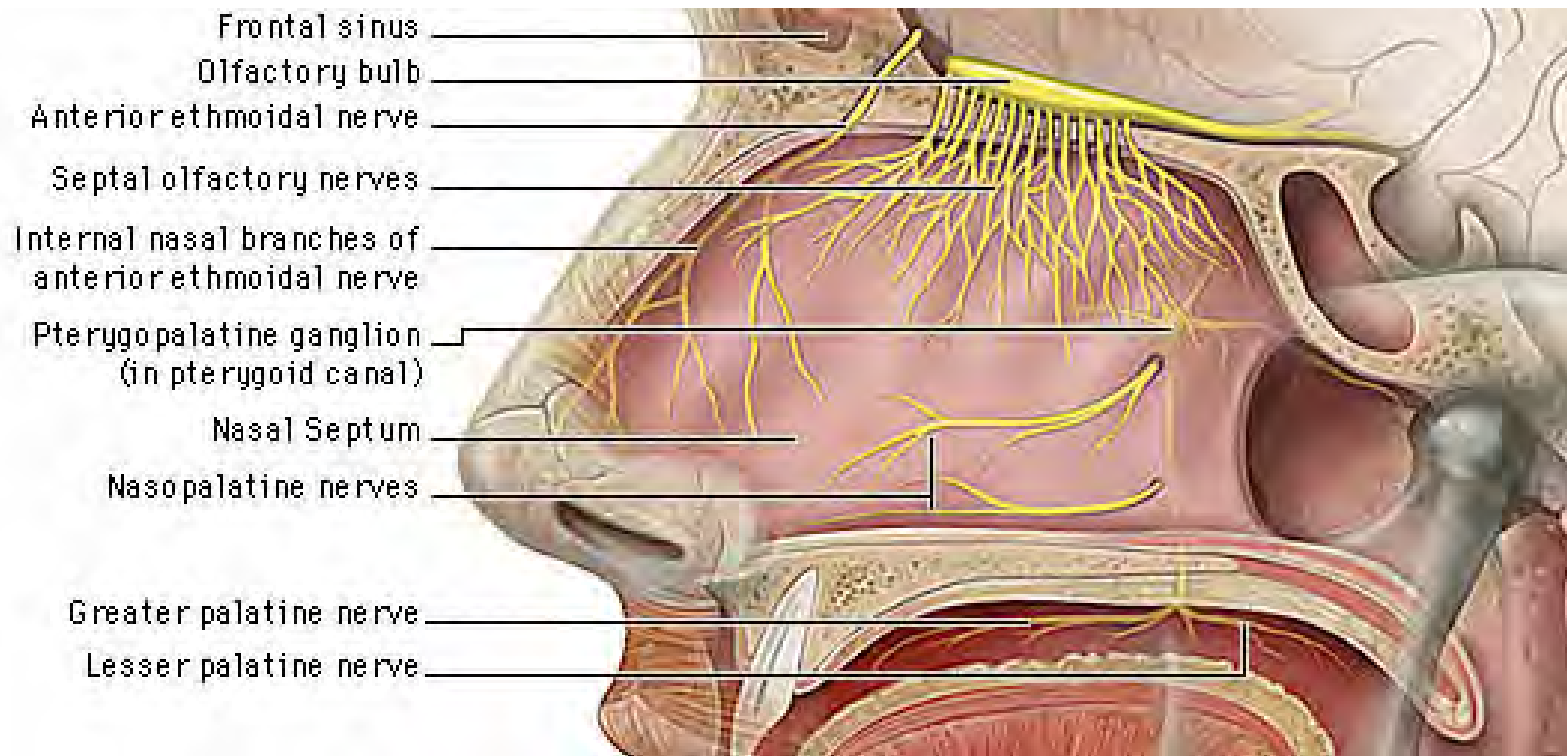
Olfaction



# Flehming



# The Sense of Smell is Powerful and Fragile



# Why Doesn't My Coffee Taste As Good As It Used To?

- Age
- Colds, infections, flu
- Hay fever, allergies
- Chronic sinusitis
- Nasal polyps, deformities, tumors
- Alzheimer disease
- Diabetes
- Malnutrition
- Head trauma
- Dentures
- Poor oral hygiene
- Medications, therapies
- Others

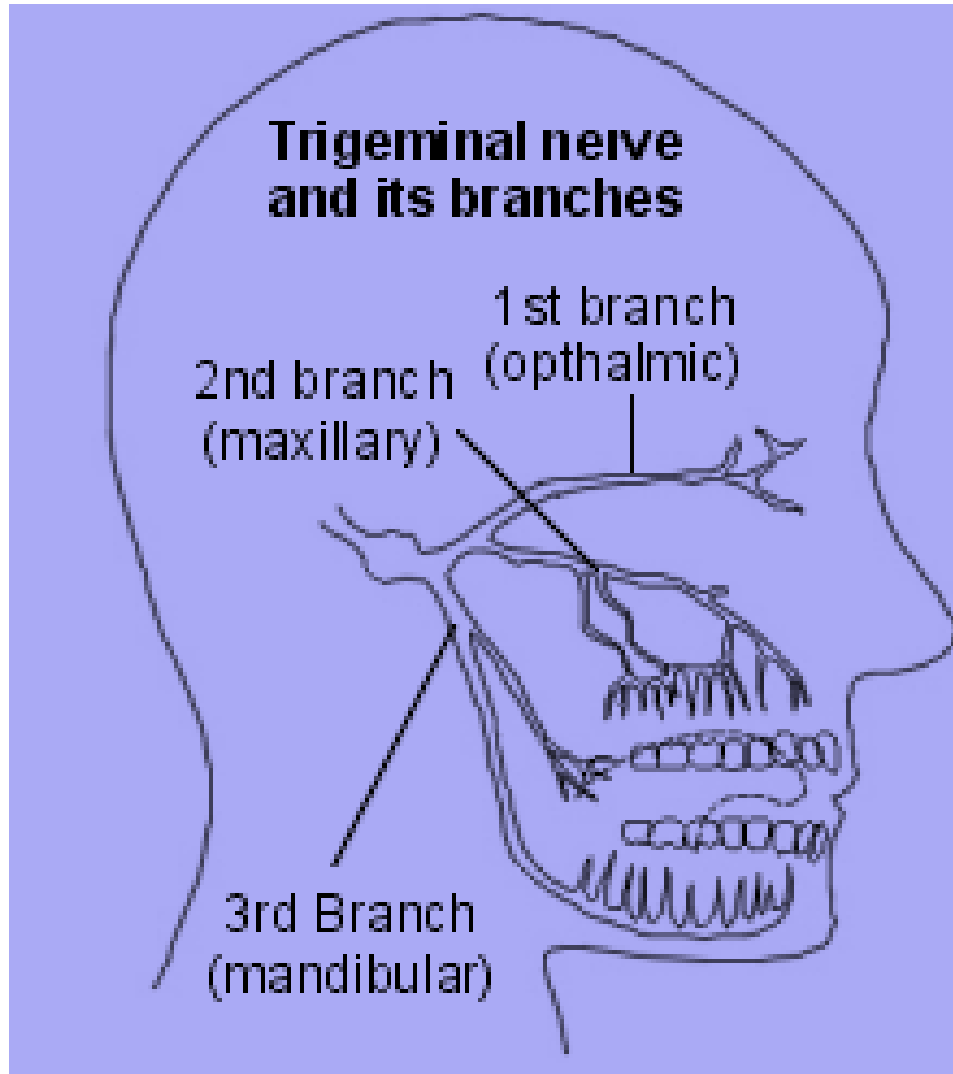


# Age-related Changes in the Chemosenes



The Sense of  
Touch

# Taste + Touch



Coolness  
Heat  
Carbonation  
“Bite”

# Chemosensory Dysfunction

- Aguesia

- A = absence of; guesia = taste

# Chemosensory Dysfunction

- Hypoguesia

- Hypo = diminished; guesia = taste

# Chemosensory Dysfunction

- Dysguesia

- Dys = distorted; guesia = taste

# Chemosensory Dysfunction

- Anosmia

- A = absence; osmia = sense of smell

# Chemosensory Dysfunction

- Hypo-osmia

- Hypo = diminished; osmia = sense of smell

# Chemosensory Dysfunction

- Dysosmia

- Dys = distorted; osmia = sense of smell

# What Can We Do?



Increase  
concentration  
of tastants

# What Can We Do?



Add moisture

# What Can We Do?



Warm food  
rather than cold

# What Can We Do?



Add texture

# What Can We Do?



Stimulate the  
trigeminal nerve

# What Can We Do?



Good oral hygiene

# Make A Plan

Mrs. Garcia is a 70 year old woman admitted for rehabilitation following repair of a hip fracture.

She 20 pounds overweight.

She consistently leaves 60-75% of her lunch and dinner meals uneaten.

