N.C. Nurse Aide I Curriculum

MODULE J

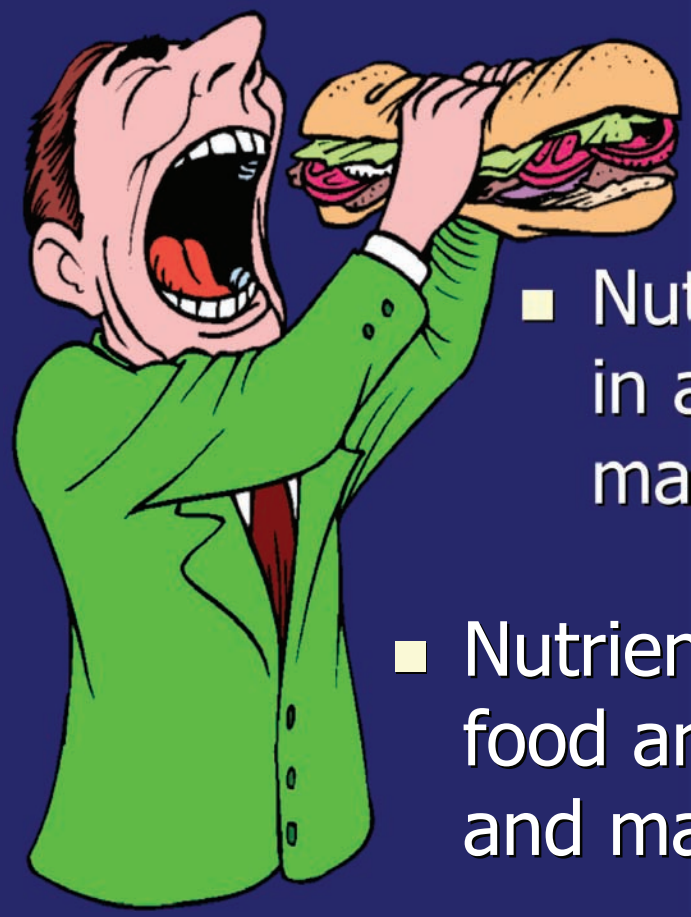
Nutrition

Objectives

- Describe nutrition and fluid requirements for the older adult.
- Identify basic nutrients.
- Explain how to read and use information from a Nutrition Facts label.
- Explain the use of the U.S. Department of Agriculture's (USDA's) MyPlate.

Objectives

- Identify special diets ordered for the older adult based on particular illnesses or conditions.
- Calculate dietary intake, fluid intake, and output.
- Discuss nurse aide responsibilities related to dysphagia and prevention of aspiration, hydration and prevention of dehydration.
- Explain the nurse aide's role in enteral and parenteral nutrition.



Important Terms

- Nutrition – when the body takes in and uses foods and fluids to maintain health
- Nutrients – substance found in food and fluids used for growth and maintenance of health
- Malnutrition – the lack of proper nutrition because of lack of food intake, improper diet, or impaired use of food

Good Nutrition - Importance

- Promotes physical and mental health
- ⇧ resistance to illness
- Produces energy and vitality
- Aids in healing
- Assists one to feel and sleep better
- Helps avoid or manage common diseases

Characteristics of Good Nutrition

- Healthy body
- Alert expression
- Healthy, shiny hair
- Clear skin and bright eyes
- Healthy appetite
- Regular elimination
- Restful sleep

Characteristics of Poor Nutrition

- Changes in weight
- Poor skin color and appearance
- Dull looking hair, eyes and skin
- Irregular elimination
- Poor sleep
- Abnormal conditions
- Tired

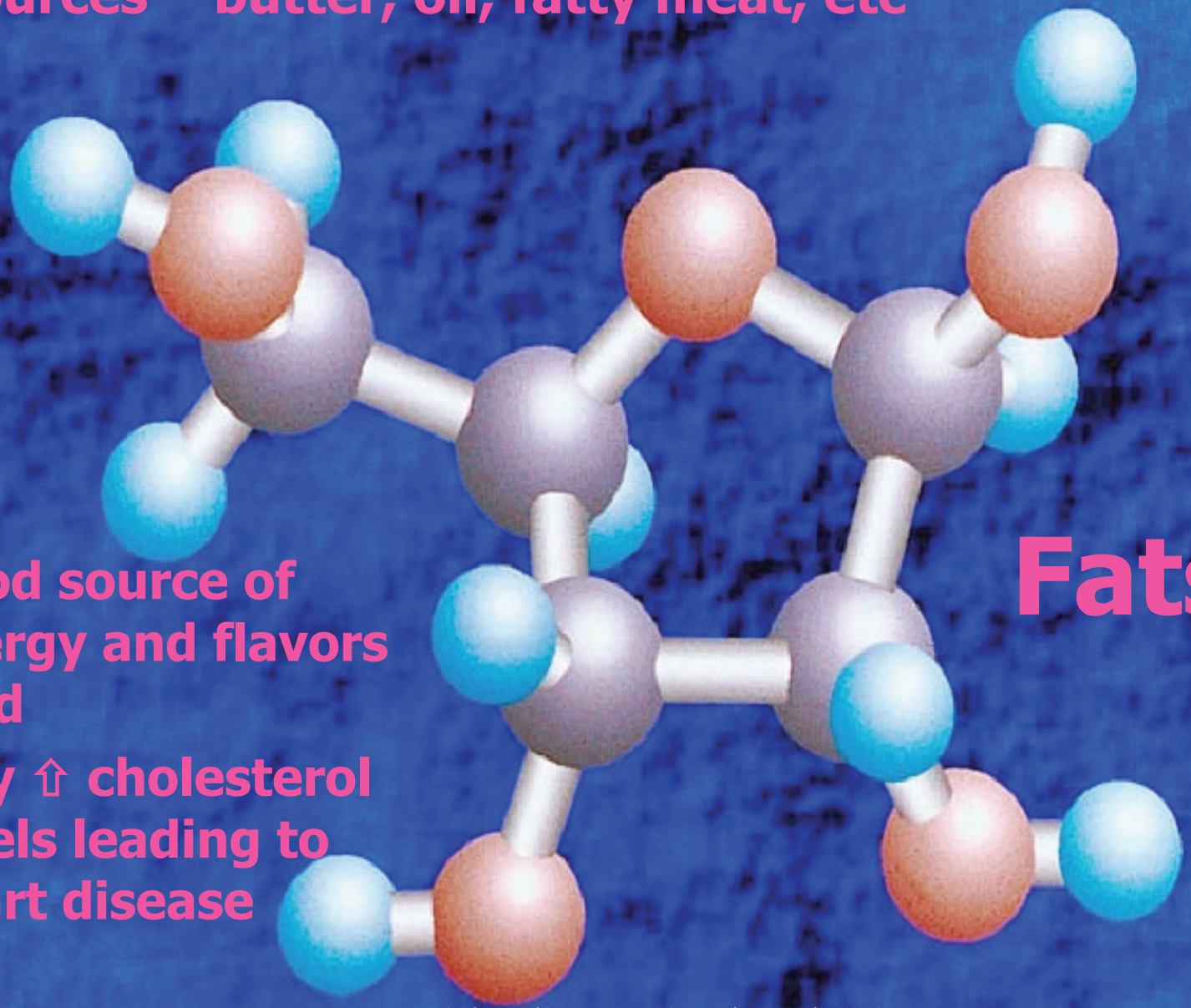
Nutrients

- Water
- Fats
- Carbohydrates
- Proteins
- Vitamins
- Minerals

Water

Fats

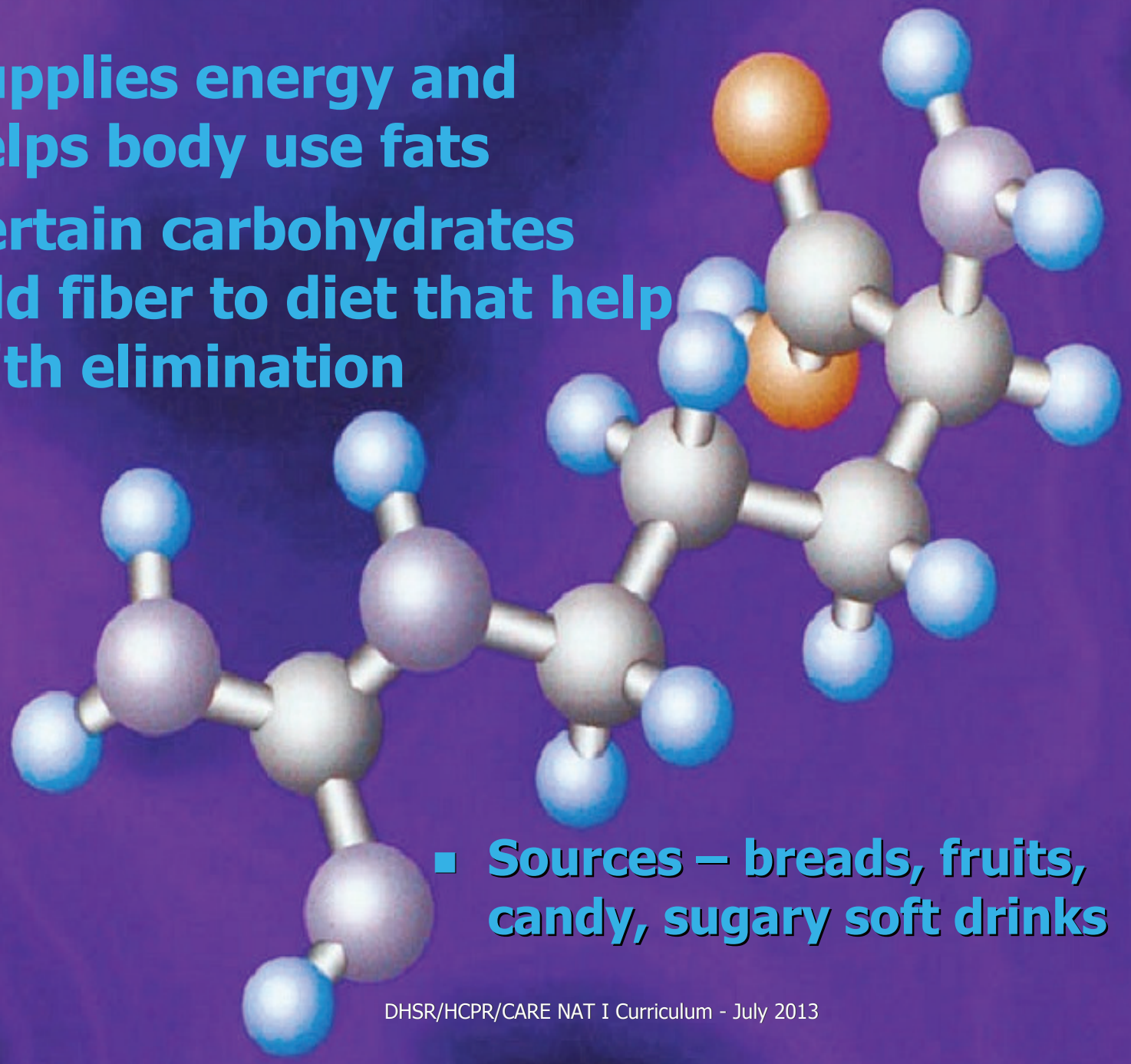
- Sources – butter, oil, fatty meat, etc



- Good source of energy and flavors food
- May ⇧ cholesterol levels leading to heart disease

Carbohydrates

- Supplies energy and helps body use fats
- Certain carbohydrates add fiber to diet that help with elimination



- Sources – breads, fruits, candy, sugary soft drinks

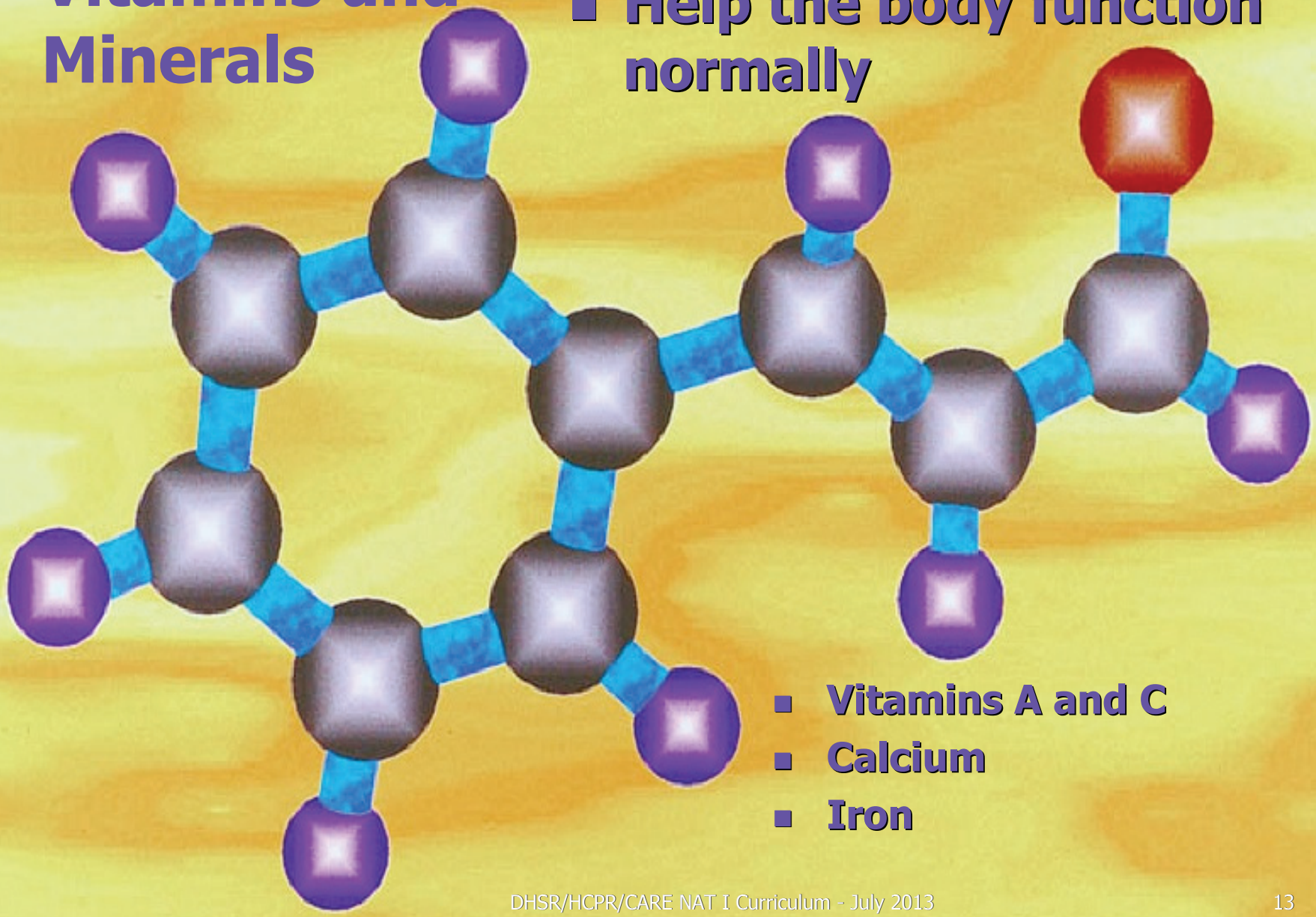
Proteins

- Needed by every cell to help grow new and help with repair of tissue

- Sources – meats, cheese, beans, etc

Vitamins and Minerals

- Help the body function normally



- Vitamins A and C
- Calcium
- Iron

Nutrition Facts Label

Nutrition Facts

Serving Size 1 cup (228g)
Servings Per Container about 2

Amount Per Serving

Calories 250	Calories from Fat 110
	% Daily Value*
Total Fat 12g	**18%**
Saturated Fat 3g	**15%**
Trans Fat 3g	
Cholesterol 30mg	**10%**
Sodium 470mg	**20%**
Total Carbohydrate 31g	**10%**
Dietary Fiber 0g	**0%**
Sugars 5g	
Proteins 5g	
Vitamin A	4%
Vitamin C	2%
Calcium	20%
Iron	4%

* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs:

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Saturated Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

For educational purposes only. This label does not meet the labeling requirements described in 21 CFR 101.9.

Nutrition Facts

Serving Size 1 cup (228g)
Servings Per Container about 2

Amount Per Serving	
Calories 250	Calories from Fat 110
	% Daily Value*
Total Fat 12g	**18%**
Saturated Fat 3g	**15%**
Trans Fat 3g	
Cholesterol 30mg	**10%**
Sodium 470mg	**20%**
Total Carbohydrate 31g	**10%**
Dietary Fiber 0g	**0%**
Sugars 5g	
Proteins 5g	
Vitamin A	4%
Vitamin C	2%
Calcium	20%
Iron	4%

* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs:

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Saturated Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

For educational purposes only. This label does not meet the labeling requirements described in 21 CFR 101.9.

} Serving Size

Nutrition Facts Label

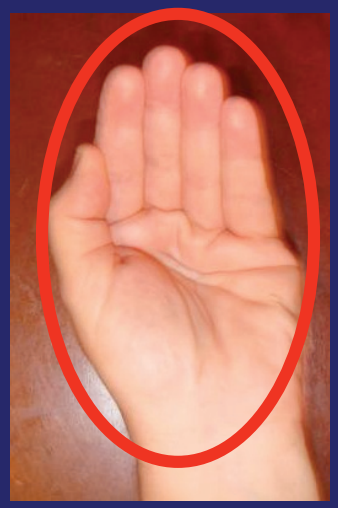
4 Methods to Determine Serving Size

- Weighing the food
- Counting pieces or measuring with a device (measuring cups or spoons)
- Using the hand as a frame of reference
- Using common objects as frames of reference

Serving Sizes Using the Hand

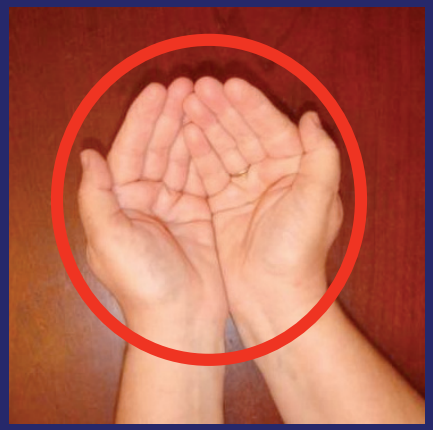
3 Ounces (meat, poultry, fish)

1 Cup (rice, fruit, veggies, cereal, pasta, baked potato)

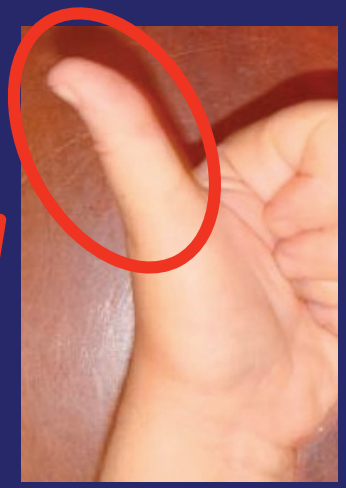


1 Ounce (nuts, raisins, small candies)

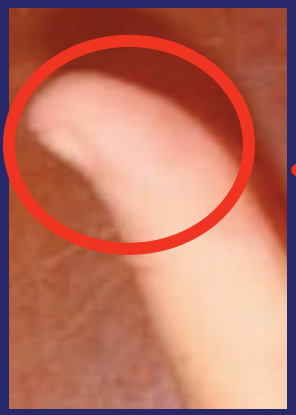
Serving Sizes Using the Hand



1 Ounce (chips, popcorn, pretzels)



1 Ounce or 1 Tablespoon (peanut butter, hard cheese)



1 Teaspoon (cooking oil, mayo, butter, sugar)

Serving Sizes Using Common Objects

Determining Serving Size of Stick Pretzels

1 Serving Equals

- 1 ounce
- 28 grams
- 28 pretzels

1 Serving Size of Stick Pretzels Equals 1 Ounce

2 Handfuls of Stick Pretzels Equal 1 Ounce

1 Serving Size of Stick Pretzels Equals 28 Grams

1 Serving Size of Stick Pretzels Equals 28 Pretzels

1 Pretzel, 2 Pretzels, 3 Pretzels, ETC.

Nutrition Facts

Serving Size 1 cup (228g)
Servings Per Container about 2

Amount Per Serving

Calories 250	Calories from Fat 110
	% Daily Value*
Total Fat 12g	**18%**
Saturated Fat 3g	**15%**
Trans Fat 3g	
Cholesterol 30mg	**10%**
Sodium 470mg	**20%**
Total Carbohydrate 31g	**10%**
Dietary Fiber 0g	**0%**
Sugars 5g	
Proteins 5g	
Vitamin A	4%
Vitamin C	2%
Calcium	20%
Iron	4%

* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs:

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Saturated Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

For educational purposes only. This label does not meet the labeling requirements described in 21 CFR 101.9.

} Calories

Nutrition Facts Label

Nutrition Facts Label

Nutrition Facts

Serving Size 1 cup (228g)
Servings Per Container about 2

Amount Per Serving	
Calories 250	Calories from Fat 110
	% Daily Value*
Total Fat 12g	**18%**
Saturated Fat 3g	**15%**
Trans Fat 3g	
Cholesterol 30mg	**10%**
Sodium 470mg	**20%**
Total Carbohydrate 31g	**10%**
Dietary Fiber 0g	**0%**
Sugars 5g	
Proteins 5g	
Vitamin A	4%
Vitamin C	2%
Calcium	20%
Iron	4%

* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs:

	Calories	2,000	2,500
Total Fat	Less than	65g	80g
Saturated Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

For educational purposes only. This label does not meet the labeling requirements described in 21 CFR 101.9.

Percent Daily Values

Percent Daily Values

If a food is low in a nutrient, it will have 5% of the Daily Value or less

- Can be good or bad, depending on if you want more of or less of a nutrient
- Nutrients you should get less of: fat, cholesterol, and sodium

Percent Daily Values

If a food is high in a nutrient, it will have 20% of the Daily Value or more

- Can be good or bad, depending on if you want more of or less of a nutrient
- Nutrients you should get more of: minerals, fiber, and vitamins

Percent Daily Values Summary

Get More of These

	% Daily Value*
Total Fat 12g	18%
Saturated Fat 3g	15%
Trans Fat 3g	
Cholesterol 30mg	10%
Sodium 470mg	20%
Dietary Fiber 0g	0%
Proteins 5g	
Vitamin A	4%
Vitamin C	2%
Calcium	20%
Iron	4%

Get Less Of These

Activity #1J Understanding and Using the Nutrition Facts Label Activity Sheet Answers

What government agency responsible for Nutrition Fact Labels? FDA

Where are they found?

1. Foods
2. Beverages

How many calories does this food have per serving? 250

If a food or beverage is high in a nutrient, it will have 20% or more of the Daily Value.

Which nutrients should you get more of?

1. Dietary fiber
2. Minerals, such as calcium and iron.
3. Vitamins, such as A and C.

Nutrition Facts

Serving Size 1 cup (228g)
Servings Per Container about 2

Amount Per Serving	
Calories 250	Calories from Fat 110
	% Daily Value*
Total Fat 12g	18%
Saturated Fat 3g	15%
Trans Fat 3g	
Cholesterol 30mg	10%
Sodium 470mg	20%
Total Carbohydrate 31g	10%
Dietary Fiber 0g	0%
Sugars 5g	
Proteins 5g	
Vitamin A	4%
Vitamin C	2%
Calcium	20%
Iron	4%

* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs:

	Calories	2,000	2,500
Total Fat	Less than	65g	80g
Saturated Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

For educational purposes only. This label does not meet the labeling requirements described in 21 CFR 101.9.

What 2 things does the serving part tell you?

1. Serving size
2. Servings per container

Percent Daily Value tells you if a food or beverage is high or low in a nutrient.

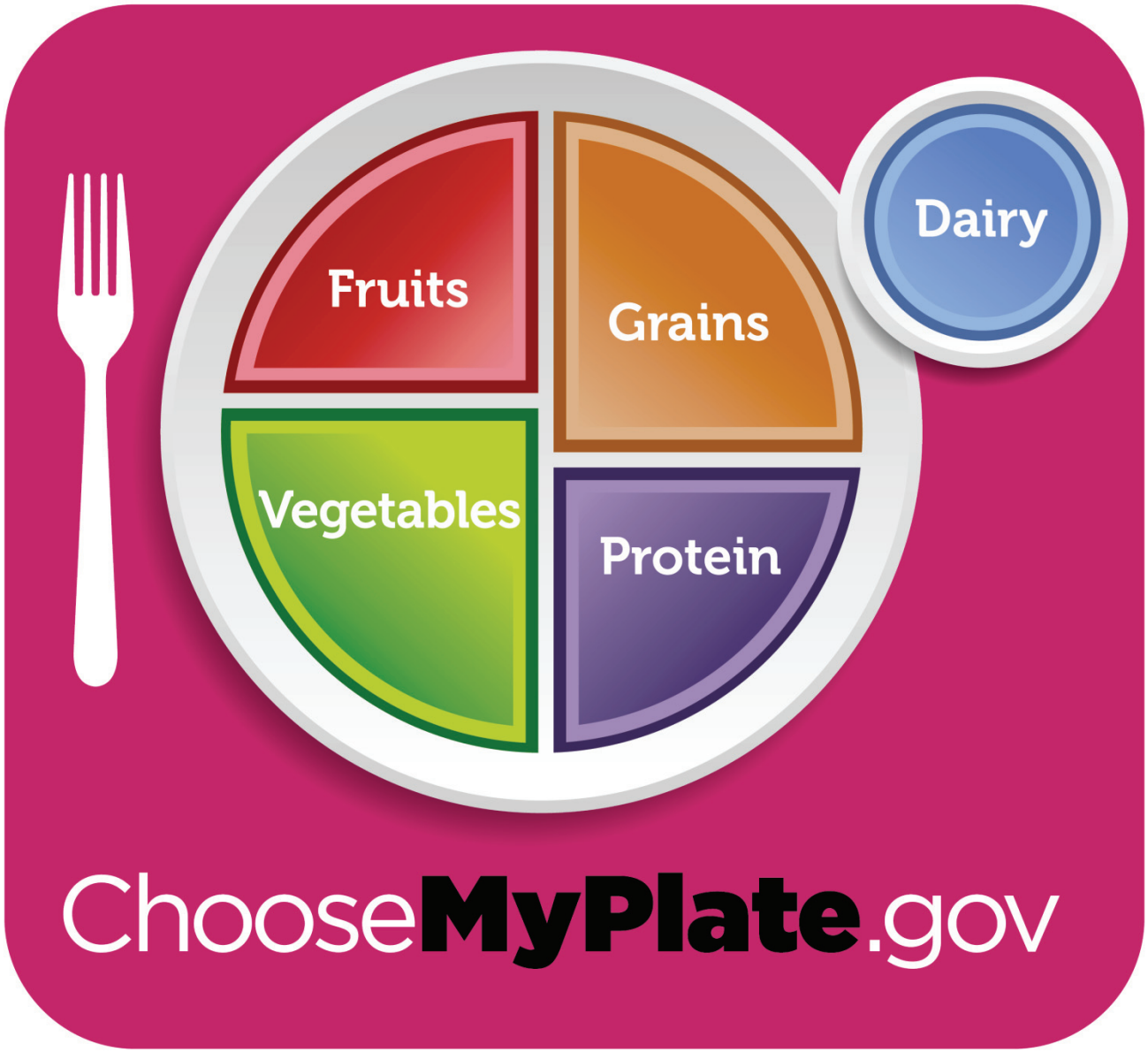
If a food or beverage is low in a nutrient, it will have 5% or lower of the Daily Value.

Which nutrients should you get less of?

1. Fats
2. Sodium
3. Cholesterol

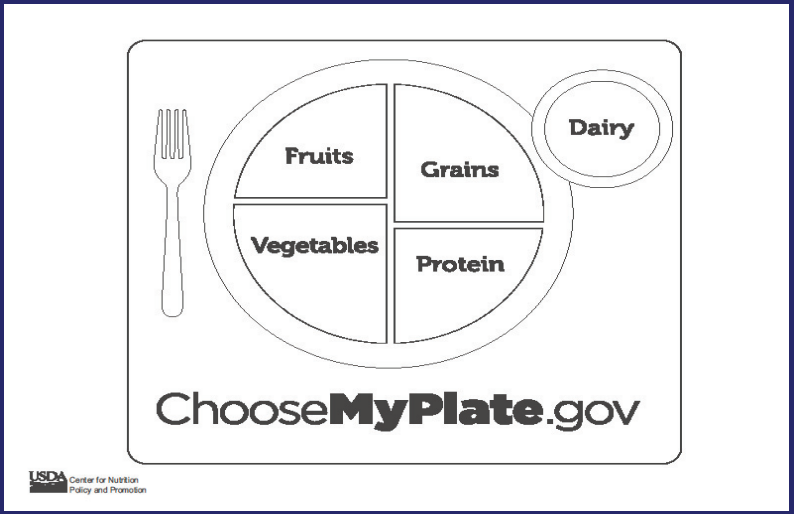
Activity # 2J Evaluation of Various Foods & Beverages Using the Nutrition Facts Label

	Food/Beverage #1	Food/Beverage #2	Food/Beverage #3	Food/Beverage #4
Name				
Serving Size				
Servings/Container				
Calories/Serving				
♉ (high) or ♉ (low)?				
• Fat				
• Cholesterol				
• Sodium				
• Carbohydrates				
• Protein				
• Calcium				
• Iron				
• Fiber				


Fruits
Grains
Dairy
Vegetables
Protein
ChooseMyPlate.gov

USDA's MyPlate 2000 Calorie Daily Food Plan

- Vegetables – 2 ½ cups every day
- Fruits – 2 cups every day
- Grains – 6 ounces every day
- Dairy – 3 cups every day
- Protein – 5 ½ ounces every day



Vegetables

Fruits

Grains

Dairy


Daisy
BRAND
SOUR
CREAM
Pure & Natural
1 Lb (16 OZ) 454g


KRAFT
PHILADELPHIA
REGULAR

Protein



Activities



Age Related Changes Affecting Nutrition

- Fewer calories
- Requirements change
- Drug effects
- Teeth and smell⇩
- Saliva and gastric juices⇩
- Appetite and thirst⇩
- Constipation
- May need assistance

The Diet Card

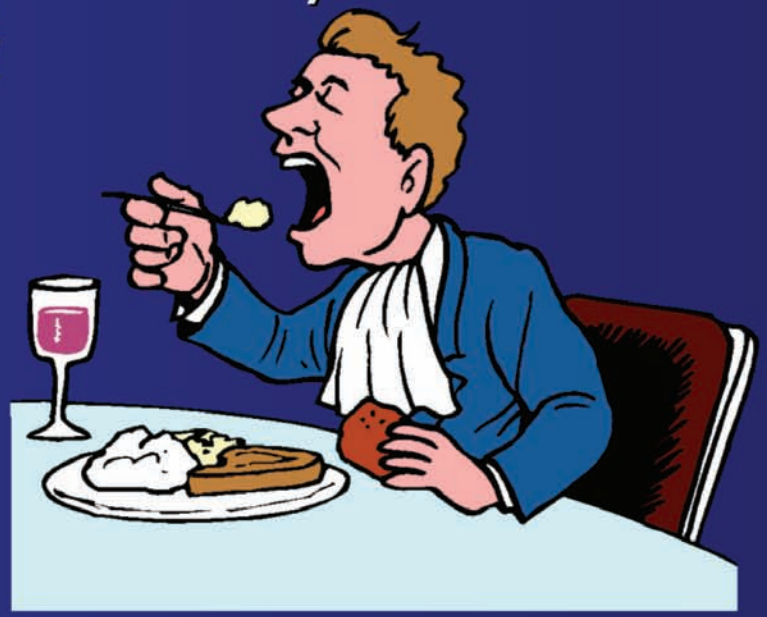
- Prepared by dietitian based on doctor's order
- Each resident's meal has its own
- At a minimum, lists room number, name, and type of diet
- The nurse aide who delivers the meal tray must verify that the **RIGHT** resident is receiving the **RIGHT** meal tray, with the **RIGHT** diet on it

Regular Diet

- Ordered by the doctor
- A basic, well-balanced diet
- Without limits or restrictions

Special Diets

- Also called therapeutic or modified diet
- Ordered by doctor and planned by dietitian with input from resident
- May restrict or totally eliminate certain foods or fluids
- Diets may be advanced



Advanced Diet

- Food is gradually reintroduced to the resident
- Reasons – surgery or medical condition

Resident may start out NPO (nothing by mouth) → ice chips → clear liquids → full liquids → mechanical soft → regular diet

Other Forms of Nutrition

- Enteral nutrition – feeds the resident through a feeding tube into the gastrointestinal tract
- Intravenous (IV) Fluids – feeds the resident through a vein

Alternative and Supplemental Feedings

- Sometimes given when resident needs extra protein, calories, and fluids
- Examples?

Nurse aide's responsibility?

OBRA Dietary Requirements

Dysphagia and Aspiration

- Dysphagia is difficulty in swallowing
- With dysphagia, there is a danger in aspiration

- Causes of dysphagia?

- Signs and symptoms?

- Nurse aide's role in prevention of aspiration?

- Needed to survive
- Death can occur if you get too little or too much
- Take in water by drinking fluids and eating foods
- Lose water via urine, feces, vomit, perspiration and lungs, plus drainage from wounds or liquids from stomach suctioning

Water

Fluid Balance

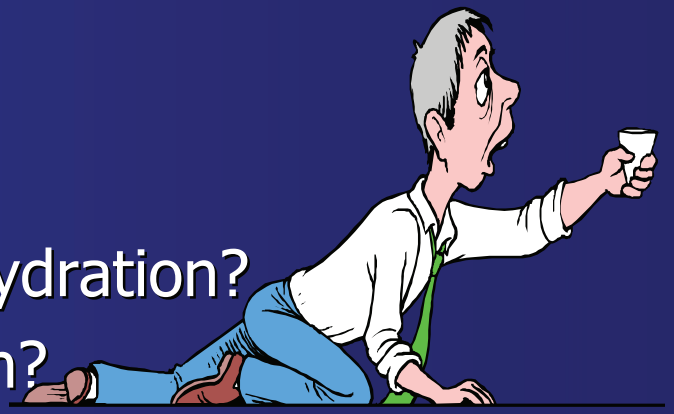
- Needed for good health
- Amount of fluid taken in = the amount of fluid lost
- Intake = output

Dehydration

Fluid intake < fluid output → dehydration

Resident does not take in enough fluid causing tissues to lack water

- When does it occur?
- Nurse aide's role?
- Warning signs of potential dehydration?
- Signs/symptoms of dehydration?



Edema

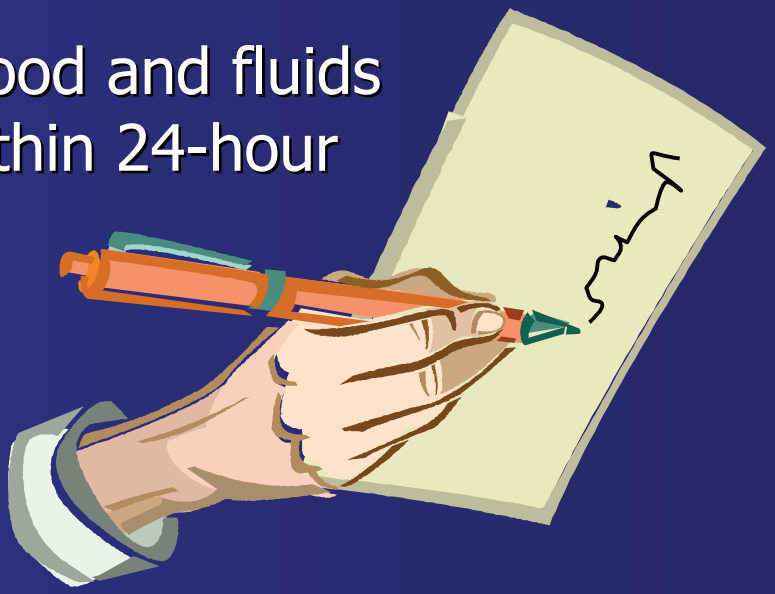
Fluid intake > fluid output → edema

Resident does not excrete enough fluid causing tissues to swell with water

- Nurse aide's role
- Signs/symptoms of fluid overload

Intake and Output (I & O)

- Residents who have certain diseases or special diets may need to have intake and output measured
- Staff records amounts of food and fluids taken in and eliminated within 24-hour time periods
- Fluids are measured in milliliters (mL) or cubic centimeters (cc)



Measuring Intake

- Fluids taken in are measured and recorded using milliliters (mL) or cubic centimeters (cc)
- Equivalents
  - 1 mL = 1 cc
  - 1 fluid ounce = 30 mL
- To convert ounces to milliliters or cubic centimeters, you multiply by 30

Measuring Intake

There are 16 fluid ounces in this cup

How many milliliters (mL) are in the cup?

Measuring Intake

- 16 fluid ounces in the cup
- 1 fluid ounce = 30 milliliters (mL)
- 16 X 30 = 480 milliliters (mL)

Measuring Intake

There are 480 mL in this cup

If a resident drinks ½ cup of milk from this cup, how many mL did the resident take in?

Measuring Intake

There are 480 mL in this cup

If a resident drinks ½ cup of milk from this cup, resident's intake is **240 mL of milk.**

Measuring Intake

There are 8 fluid ounces in this cup

How many milliliters (mL) are in the cup?

Measuring Intake

- 8 fluid ounces in the cup
- 1 fluid ounce = 30 milliliters (mL)
- 8 X 30 = 240 milliliters (mL)

Measuring Intake

There are 240 mL in this cup

If a resident drinks 1/3 cup of milk from this cup, how many mL did the resident take in?

Measuring Intake

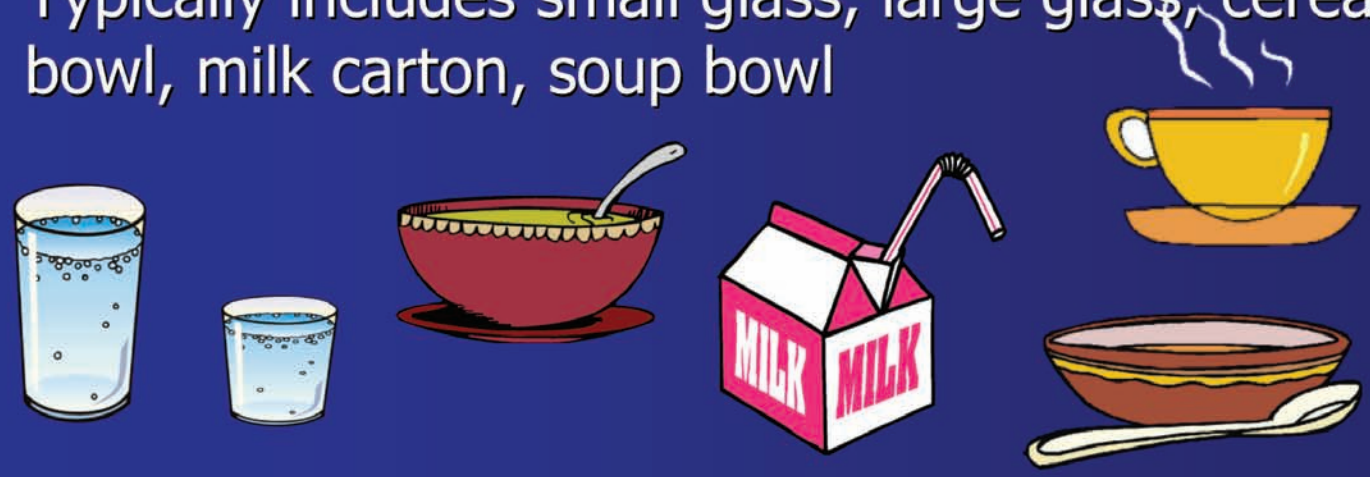
There are 240 mL in this cup

If a resident drinks 1/3 cup of milk from this cup, the resident's intake is **80 mL of milk.**

Measuring Intake

List of container sizes available, based on facility

- Typically includes small glass, large glass, cereal bowl, milk carton, soup bowl



- Calculate amount taken in based on total amount container holds and how much of the fluid was taken in

Measuring Intake

- Fluids taken by mouth that are measured include:

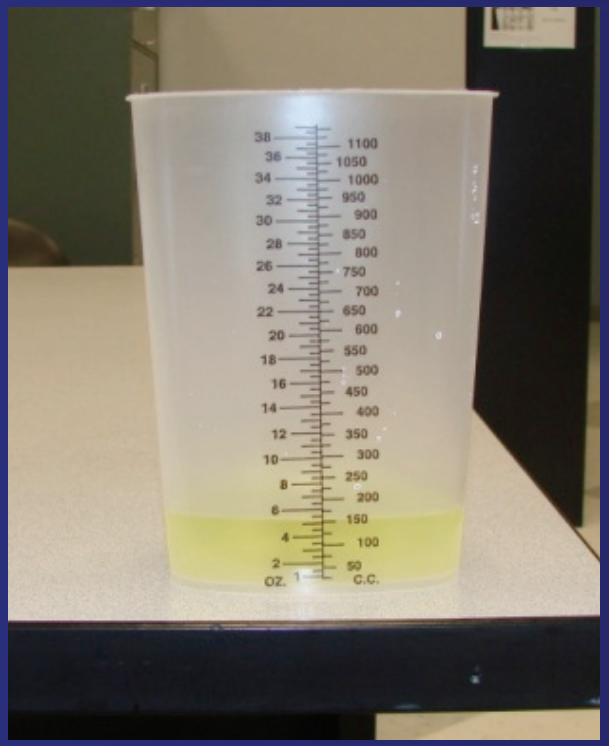
- Other fluids taken in, counted as intake, and measured by nurse include:
  - Intravenous fluids
  - Tube feedings

Dietary Consumption

Dietary consumption for each meal is typically documented in percentages and based on facility policy

Measuring Output

- Fluids are measured and documented using milliliters (mL) or cubic centimeters (cc)
- Graduates – containers that measure fluid in milliliters/cubic centimeters



What types of fluids are measured?

The End