### Fluid Needs

#### Lesson 4 Overview

<table>
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<th>Time</th>
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<td>30 minutes</td>
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#### Purpose
To discuss fluid needs of adult day care participants

#### Objectives
At the conclusion of this lesson, employees will be able to:

- Discuss the role of fluid in the diet
- Describe ways to increase the fluid intake of adult day care participants

#### Definitions

*Fluid*: Any moisture found in food or beverages

#### Materials

- Display of foods, food pictures, food packages or food models for Activity 1
- Flipchart and markers
- Handout 1: Can You Guess the Fluid Content?
- Handout 2: Can You Guess the Fluid Content?
- Handout 3: Fluid Recall
- Lesson Evaluation
- Answer keys for Handout 1, Handout 2, and Lesson Evaluation
- Lesson Enrichment Suggestion: Invite a rehabilitation therapist to speak about adaptive cups, mugs, or other equipment used to facilitate consumption of fluid.
Lesson 4 Overview (cont.)

Activities

**Activity 1:** Icebreaker. The purpose of the icebreaker is to help employees think about the sources of fluid in the diet. Set up a display of five to seven food items using actual food, food pictures, food packages, or food models. Label each item by name and portion size. You can either choose your own foods or use the foods listed in Handout 1. If you choose your own foods, include a variety of foods served at the adult day care center and use Handout 2. Ask employees to estimate the amount of fluid in each item.

**Activity 2:** Ask employees to make a list of all the beverages and the approximate amounts of these beverages that they have consumed in the last 24 hours. Use Handout 3.

**Activity 3:** Ask employees to look at a week of the adult day care center’s menus and circle primary sources of fluid (beverages and foods such as yogurt, pudding, frozen juice bars, soup, or gelatin). Estimate the amount of fluid served each day. Compare the total to the recommendation of at least 6 cups of fluid per day. Discuss ways to increase the total amount of fluid consumed by participants each day.

Evaluation

Use the Lesson Evaluation to assess the employees’ knowledge of the concepts presented in this lesson.

References


Lesson 4 Content

Activity 1: Icebreaker

**Note:** The materials needed for Activity 1 are five to seven food items of actual food, food pictures, food packages, or food models and a copy of either Handout 1 or Handout 2 for each employee. The purpose of Activity 1 is to help employees think about the sources of fluid in the diet. Set up a display of five to seven food items using actual food, food pictures, food packages, or food models. Label each item by name and portion size. You can either choose your own foods or use the foods listed in Handout 1. If you choose your own foods, include a variety of foods served at the adult day care center and use Handout 2. Ask employees to estimate the amount of fluid in each item.

**Tell:** You are going to do an activity that will help you think about the sources of fluid in the diet. Look at the foods on the display. Guess the amount of fluid in each food item and write your estimate on the handout.

**Note:** Give a copy of the handout that fits how you set up the display (either Handout 1 or Handout 2) to each employee. Make sure each employee understands the directions before starting this activity.

**Discuss:** Employees’ responses.

Introduction

**Tell:** Fluid or water is essential for life.
- All of the body processes take place in fluid.
- Water makes up about 70% of an adult’s body weight.

**Ask:** Where is water found in the body?

**Tell:** Blood and muscle tissue contain the greatest percentages of water in the body.

Even fat and bone are about 25% water.
Lesson 4 Content (cont.)

Introduction (cont.)

Tell: The body is not able to store water for a long time because water is actively involved in:
- Digestion of food
- Transporting nutrients to cells
- Regulating body temperature
- Removing wastes from the body

Fresh water is needed every day to replace the water that is lost.

Dehydration

Tell: Not drinking enough fluids results in dehydration.

Dehydration is a serious medical problem for older adults and those with disabilities.
- The sense of thirst can be decreased due to age, medication, traumatic brain injury, or dementia.
- The participant will not feel thirsty even though the body needs fluid.

It is the responsibility of the adult day care employees to encourage fluid consumption at every meal, snack, or activity in which beverages are served.

Sources of Fluid

Tell: Water is the best source of fluids for the body. It is the primary ingredient of all beverages.

Nearly all foods contain some water. Fruits and vegetables contain the most water. The following foods have a high fluid content:
- Broccoli
- Celery
- Iceberg lettuce
- Oranges
- Peaches
- Pears
- Squash
- Tomatoes
- Watermelon
Lesson 4 Content (cont.)

Sources of Fluid (cont.)

Tell: Foods like gelatin are sources of fluid because gelatin will melt in the mouth to fluid. Other foods such as soup, yogurt, cottage cheese, frozen juice bars, or pudding are also naturally high in fluid.

Foods like bread, meat, fats, and oils contain very little fluid.

Activity 2

Note: The material needed for Activity 2 is a copy of Handout 3 for each employee. This activity should be done individually. You will refer to the employees’ answers on Handout 3 when discussing “Fluid Recommendations.”

Tell: Take a minute and think about the beverages you have consumed in the last 24 hours. Write them down in the first column on Handout 3. Then, estimate how much of each beverage you consumed. Write that estimate in the second column on Handout 3. When you are finished, keep Handout 3 in front of you so that you can refer to it easily.

Fluid Recommendations

Tell: Experts recommend that adults drink at least 6 cups of fluid each day.

- Adults who are physically active or have significant fluid losses may need more than 6 cups of fluid per day.
- Some adults may have to limit their total fluid intake due to kidney disease or congestive heart disease. Fluid restrictions are part of a therapeutic diet order.

Tell: Take Handout 3 again.

- In the second column, you wrote down the amount you consumed of each beverage. Take a minute and total this amount.
- It is recommended that adults drink at least 6 cups of fluid each day. If you drank 6 cups or more, you are meeting this recommendation. If not, you need to drink more fluid each day.
Lesson 4 Content (cont.)

Fluid Recommendations (cont.)

Tell: Fluid needs can be met from beverages and foods. The best source of fluid for adults is plain water.
  - Tap water and plain bottled water are the two most common forms of water.
  - There are a variety of bottled water products on the market including flavored water, carbonated water, caffeinated water, and bottle water fortified with vitamins and minerals.

Many adults prefer beverages that contain more than just water. These beverages usually provide calories and other key nutrients to the diet.

Tell: Take Handout 3 once more. Look at the types of beverages you consumed in the last 24 hours. Determine if you consumed mostly:
  - Tap water
  - Plain bottled water
  - Bottled water products
  - Beverages containing more than just water

Meeting Fluid Needs

Tell: The meals and snacks provided at the adult day care center provide a portion of the fluid needed each day. In the next activity, you will look at the menus served in our center to see how much fluid is served to participants each day.

Activity 3

Note: The materials needed for Activity 3 are a copy of the center’s menus for a week for each employee, a flipchart, and markers. This activity can be done individually or in groups. When discussing the answers, write them on the flipchart.

Tell: Look at the adult day care center menus and circle the primary sources of fluid such as beverages and foods such as yogurt, pudding, frozen juice bars, soup, or gelatin. Then, estimate the total amount of fluid served each day.

Discuss: Employees’ answers.
Lesson 4 Content (cont.)

Activity 3 (cont.)

**Tell:** Now compare the total amount of fluid served each day to participants to the recommendation of at least 6 cups of fluid per day.

**Discuss:** Employees’ answers.

**Discuss:** Ways to increase the total amount of fluid consumed by participants each day.

Lesson Enrichment Suggestion

**Note:** Invite a rehabilitation therapist to speak to the employees about adaptive cups, mugs, or other equipment used to facilitate consumption of fluid.

Lesson Evaluation

**Note:** The material needed is a copy of the Lesson Evaluation for each employee. Go over the directions with the employees before having them answer the questions.

**Discuss:** Employees’ responses.
### Handout 1

**Can You Guess the Fluid Content?**

**Directions:** Guess the amount of fluid in each food item.

<table>
<thead>
<tr>
<th>Food Item and Portion Size</th>
<th>Approximate Amount of Fluid in the Portion Size</th>
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</thead>
<tbody>
<tr>
<td>1 cup milk</td>
<td></td>
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<tr>
<td>1 slice white bread</td>
<td></td>
</tr>
<tr>
<td>½ cup applesauce</td>
<td></td>
</tr>
<tr>
<td>1 cup tomato soup</td>
<td></td>
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<tr>
<td>½ cup gelatin</td>
<td></td>
</tr>
<tr>
<td>1 cup plain yogurt</td>
<td></td>
</tr>
<tr>
<td>½ cup green beans</td>
<td></td>
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<tr>
<td>1 cup orange juice</td>
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<tr>
<td>2 Tbsp peanut butter</td>
<td></td>
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<tr>
<td>2 oz cottage cheese</td>
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</table>
### Handout 1: Answer Key

**Can You Guess the Fluid Content?**

**Directions:** Guess the amount of fluid in each food item.

<table>
<thead>
<tr>
<th>Food Item and Portion Size</th>
<th>Approximate Amount of Fluid in the Portion Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 cup milk</td>
<td>About 7 oz are fluid. About 1 oz is from milk solids.</td>
</tr>
<tr>
<td>1 slice white bread</td>
<td>Very small amount of moisture.</td>
</tr>
<tr>
<td>½ cup applesauce</td>
<td>About 3 oz are fluid. About 1 oz is from apple solids.</td>
</tr>
<tr>
<td>1 cup tomato soup</td>
<td>About 7 oz are fluid. About 1 oz is from tomato solids.</td>
</tr>
<tr>
<td>½ cup gelatin</td>
<td>Gelatin melts to fluid. One-half cup gelatin equals about ½ cup fluid.</td>
</tr>
<tr>
<td>1 cup plain yogurt</td>
<td>About 6 oz are fluid. About 2 oz are from milk solids.</td>
</tr>
<tr>
<td>½ cup green beans</td>
<td>About 1.5 oz are fluid and 2.5 oz are green bean solids.</td>
</tr>
<tr>
<td>1 cup orange juice</td>
<td>About 7 oz are fluid. About 1 oz is from orange solids/pulp.</td>
</tr>
<tr>
<td>2 Tbsp peanut butter</td>
<td>Very small amount of moisture.</td>
</tr>
<tr>
<td>2 oz cottage cheese</td>
<td>About 1 oz is fluid and 1 oz is milk solids.</td>
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</tbody>
</table>
**Handout 2**

**Can You Guess the Fluid Content?**

Directions: Guess the amount of fluid in each food item.

<table>
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<tr>
<th>Food Item and Portion Size</th>
<th>Approximate Amount of Fluid in the Portion Size</th>
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Handout 2: Answer Key
Can You Guess the Fluid Content?

**Directions:** Guess the amount of fluid in each food item.

<table>
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<tr>
<th>Food Item and Portion Size</th>
<th>Approximate Amount of Fluid in the Portion Size</th>
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<tbody>
<tr>
<td></td>
<td><em>The actual foods used will determine the answers. Refer to the USDA National Nutrient Database for Standard Reference for the moisture/fluid content of foods.</em></td>
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</table>
Handout 3
Fluid Recall

Directions: Make a list of the beverages you have consumed in the last 24 hours. Estimate the volume of liquid consumed.

<table>
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<tr>
<th>Beverage</th>
<th>Estimated Portion Size</th>
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Total Fluid Intake
Lesson Evaluation

Directions: Read each question carefully before answering.

1. Circle the two items that are highest in fluid on the following lunch menu:

   - Chicken Filet on Bun
   - Slaw
   - Baked Beans
   - Milk
   - Chocolate Cookie

2. Suggest alternate menu choices to increase the fluid served in the lunch menu in Question 1.

3. List one way to increase the fluid served to adult day care participants at your center.
Lesson Evaluation: Answer Key

**Directions:** Read each question carefully before answering.

1. Circle the two items that are highest in fluid on the following lunch menu:

   - Chicken Filet on Bun
   - Slaw
   - Baked Beans
   - Milk
   - Chocolate Cookie

2. Suggest alternate menu choices to increase the fluid served in the lunch menu in Question 1.
   - Serve pudding instead of the cookie or with the cookie.
   - Serve gelatin with fruit instead of the cookie.

3. List one way to increase the fluid served to adult day care participants at your center.
   - Serve soup or broth at the noon and evening meals.
   - Encourage participants to drink water.
   - Talk with the Activities Director about serving beverages at more activities.