



# Hydration - It's a Splash!

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# Hydration - It's a Splash!

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# Hydration - It's a Splash!

## Instructions

### Slides for the Inservice:

- The slides can be shown on computer or projected on a screen using a data projector.
- You can show the slides directly from the Acrobat file by simply clicking on the icon that looks like a computer screen. Or you can go to the tool bar and click on “View” and “Full Screen” to show the slides on your screen.
- Then click the down arrow button or the page down button on your keyboard.

### Presenter's Notes for the Inservice:

- Review the presenter's notes prior to presenting the slides.
- The presenter's notes offer additional information not included on the slides, suggestions for how to present some of the information, and activities you may want to incorporate.

### Handouts for the Inservice:

- Simply copy the handouts and the pre- post-tests for participants.
- Do not provide the answer key for the pre-post tests.
- You can choose to give the test before and after the training, or just after the training to determine the effectiveness of your inservice and whether or not additional training is needed.



# Slides





# Hydration - It's a Splash!

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# Objectives

1. Identify risk factors which lead to dehydration
2. Learn how to provide sufficient fluid intake to maintain hydration and health

# Hydration! It's a Splash!

## **SPLASH:**

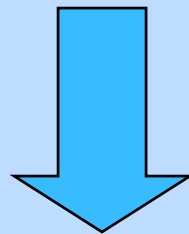
- **S**taff
- **P**roviding
- **L**iquids
- **A**lways
- **S**ecures
- **H**ydration



# Dehydration is . . .

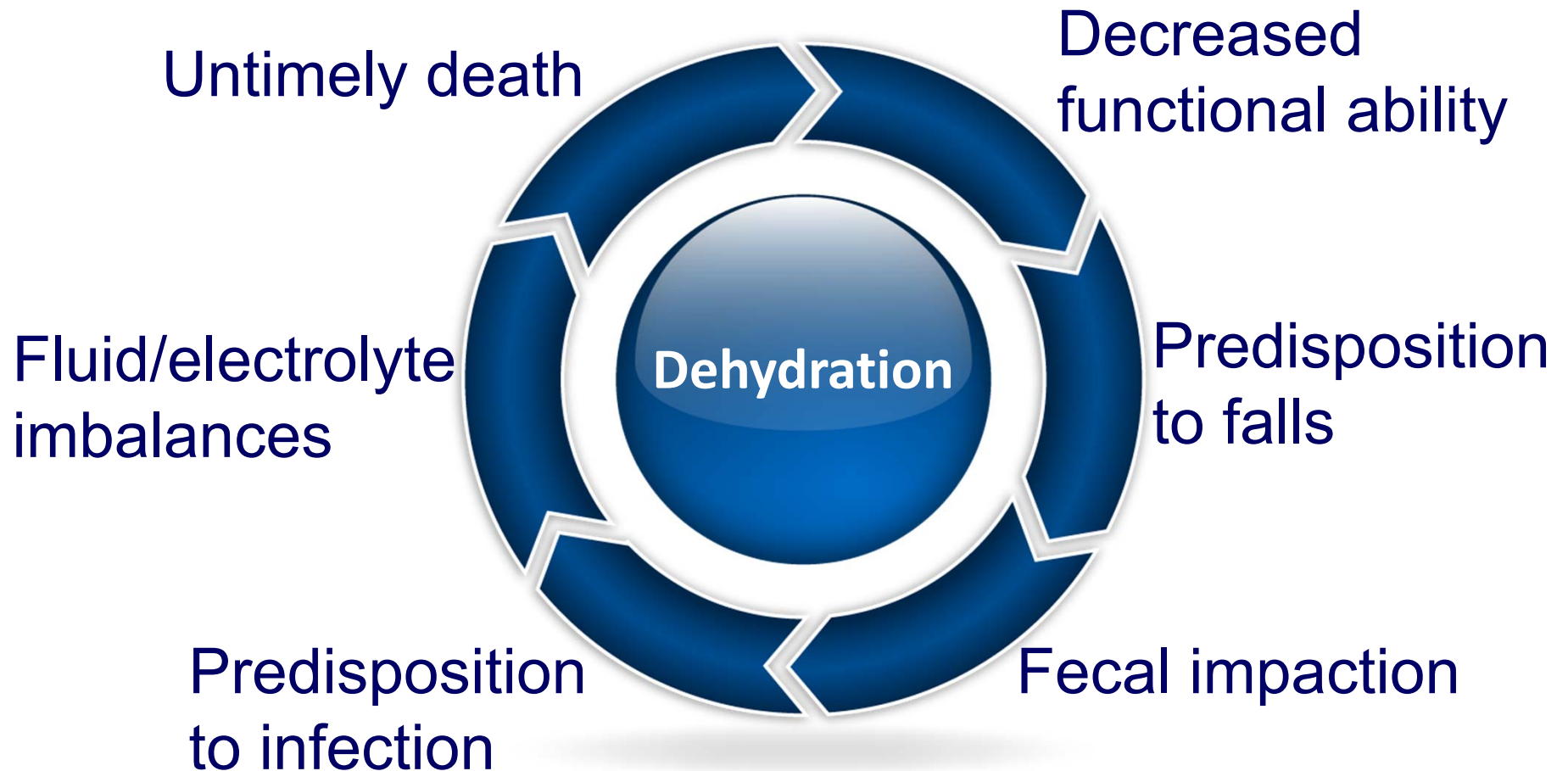
- When the body's water output exceeds input

Always debilitating



Potentially fatal

# Possible Consequences







# Risk is Higher for Older Adults

- Total body water decreases with age
- Kidney function declines with age
- Ability to feel thirst declines with age
- Increased dependence on care-givers for food and fluid, unable to verbalize needs
- Fear of urinary incontinence





# Risk Factors

- Nausea, vomiting, diarrhea
- Dysphagia
- Hot room temperature
- Fever, infection
- Excessive sweating or urination
- Tube feeding
- Medications such as diuretics and laxatives
- Refusing fluids or limited intake
- Wounds
- Air fluidized bed
- Renal disease
- Burns

# Progression of Dehydration

**Thirst**

Can they recognize it?

**Weakness**

“I’m so tired”

**Exhaustion**

“I can’t get up”

**Delirium**

“Where am I?”

**Death**

If left untreated



# Physical Signs

- Dry skin, cracked lips, dry mouth
- Dizziness on sitting/standing
- Falls
- Confusion/change in mental status

- Decreased urine output (dark urine)
- Poor skin turgor
- Constipation
- Fever
- Sunken eyes



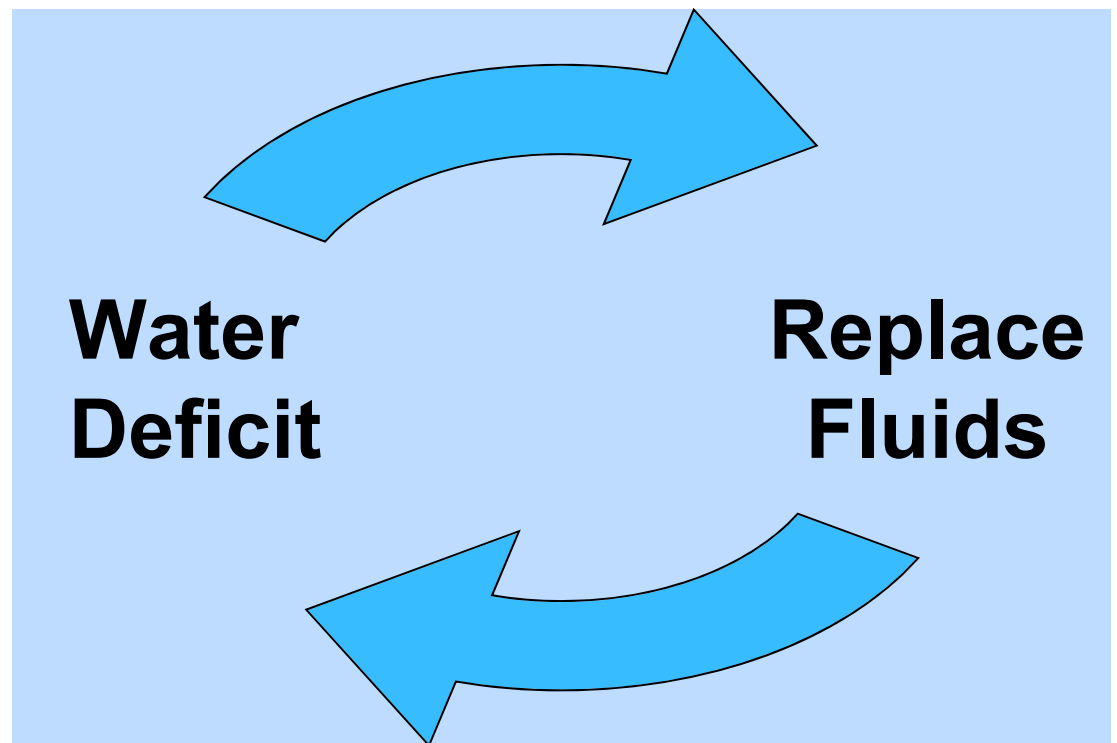
# Prevention

1. Identify individuals at risk
2. Encourage fluids:
  - with and between meals
  - at each contact
3. Inform other staff of potential problems with fluid intake
4. Involve the individual in prevention of dehydration

# Treatment: Water Deficit → Replace Fluids

## Fluid Losses

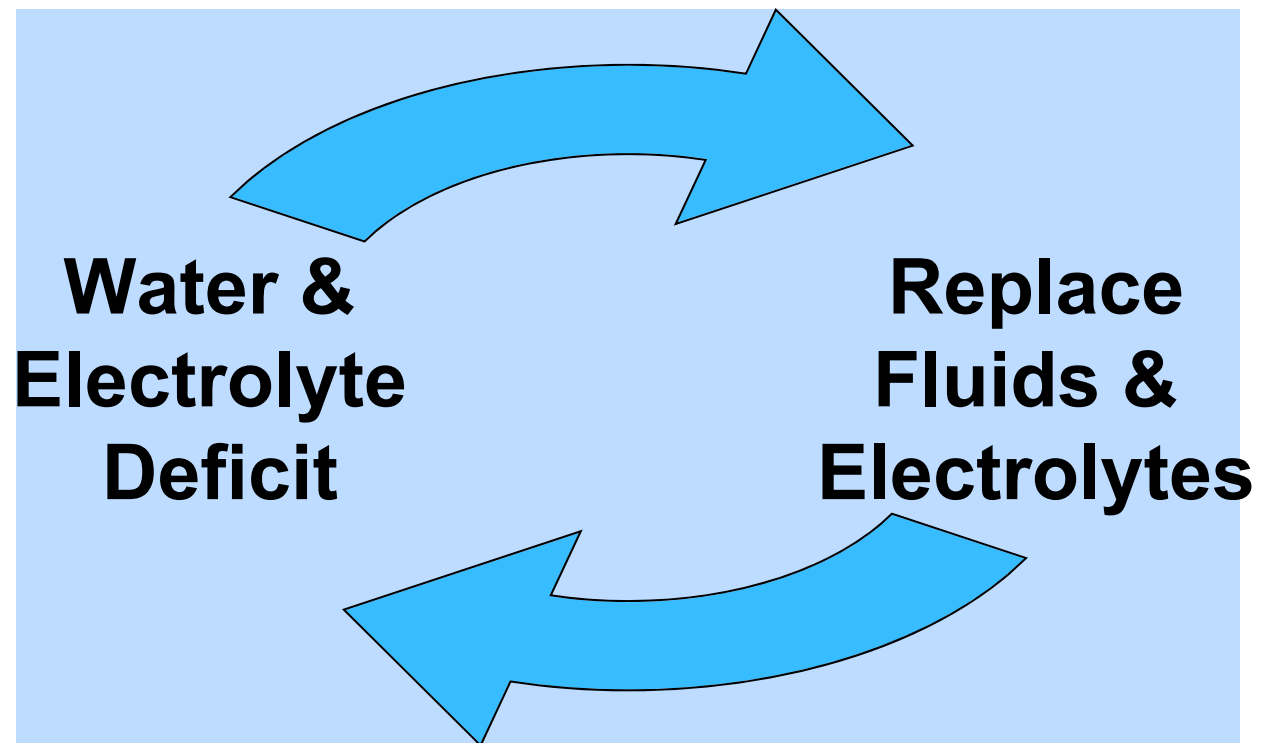
- Poor fluid intake
- Sweating
- Fever
- Infection
- Draining wounds



# Water and E-lyte Deficit → Replace Fluids and E-lytes

## GI Losses

- Diarrhea
- Vomiting
- Ostomy







# Questions to Consider

1. Are we assisting those who are unable to reach, pour, and drink independently?
2. Are fluids offered frequently, and are fluid preferences honored?
3. Do we encourage fluids, monitor intake and check output?
4. Do we provide the correct fluid consistency for each individual?
5. Is the room too warm?



# Caregivers Should Know

## The individual's:

- Diet order
- Correct fluid consistency
- Fluid restriction (if any)
- Ability to obtain/drink fluids independently
- Fluid preferences



# Fluid Needs

30 mL/kg body weight

- Provide a minimum of 1500 mL/day for all individuals (unless on fluid restrictions)

Example:

- 150 pounds = 68 kg
- $68 \text{ kg} \times 30\text{mL} = 2040 \text{ mL}$  (or  $8\frac{1}{2}$  cups fluid daily)

# Estimated Fluid Needs

<b>Weight</b>	<b>Minimum of</b>
<b>Less than or equal to 100 pounds</b>	<b>6 1/4 cups</b>
<b>100-125 pounds</b>	<b>7 cups</b>
<b>125-150 pounds</b>	<b>8 1/2 cups</b>
<b>150-175 pounds</b>	<b>10 cups</b>
<b>175-200 pounds</b>	<b>11 1/2 cups</b>
<b>More than 200 pounds</b> <b>For every 10 lbs over, add a 1/2 cup</b>	<b>_____ cups</b>



# Fluid Needs

Additional fluids are needed for:

- Fever, diarrhea, vomiting
- Profuse sweating
- Draining wounds; special wound beds

Fewer fluids may be required for:

- Renal disease
- Heart failure



# Sources of Fluids

- Beverages: water, milk, juice, water, tea, coffee, soda, fruit punch, milkshakes, oral nutritional supplements
- Ice cream, sherbet, pudding, broth, soup, gelatin, popsicles
- Some foods are high in fluids, such as fruits and vegetables and soups and stews



# Measuring Liquids

<b>1 cup</b>	<b>= 8 oz</b>	<b>= 240 mL</b>	<b>Soup bowl or 8 ounce glass</b>
<b><math>\frac{3}{4}</math> cup</b>	<b>= 6 oz</b>	<b>= 180 mL</b>	<b>Coffee cup</b>
<b><math>\frac{1}{2}</math> cup</b>	<b>= 4 oz</b>	<b>= 120 mL</b>	<b>Juice glass</b>
<b><math>\frac{1}{3}</math> cup</b>	<b>= <math>3\frac{1}{3}</math> oz</b>	<b>= 80 mL</b>	
<b><math>\frac{1}{4}</math> cup</b>	<b>= 2 oz</b>	<b>= 60 mL</b>	



# Thickened Liquids

Some individuals cannot or should not drink thin liquids due to swallowing problems

Thin liquids:

- Water, tea, coffee, soda, clear juice, broth, plain gelatin
- Milk, supplements, ice cream, frozen yogurt, sherbet, popsicles (become thin at room temperature)

A dark blue background with several water droplets of varying sizes, some in motion, creating a sense of freshness and liquid texture.

## Nectar Thick

- Peach, pear or apricot nectars
- Vegetable juices (tomato, V-8)
- Pre-thickened beverages or those thickened in-house

A dark blue background featuring a glass of water with a splash of water droplets, suggesting a thick, viscous liquid.

## Honey Thick

- Pre-thickened beverages
- Beverages thickened in-house



# Spoon Thick

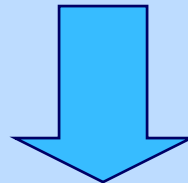
- Thickened to the consistency of pudding
- Use a commercial thickening agent
- Flavor of original liquid may be changed, making it less appealing to the individual
- May be difficult for individuals to consume enough spoon-thick liquids to achieve hydration

# 4 Questions To Ask

Can the individual

1. Verbalize the desire to drink?
2. Obtain and drink fluids independently?

If “no”



Assist as much as possible

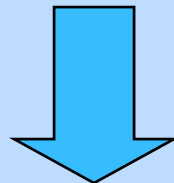
Report your observations to a supervisor

## 4 Questions To Ask

Is the individual

3. Willing/able to drink as much fluid as needed to remain hydrated?
4. Free of problems such as vomiting, diarrhea, ostomy fluid losses, etc.?

If “no”



Report your observations to a supervisor





# Make a Splash!

Identify high risk individuals

- Hydration bracelet
- Bright napkin
- Colored tray mats

Encourage fluids

- “Hydration Station”
- “Happy Hour”
- “Wet Your Whistle” breaks
- Beverage cart
- “Coffee club”



# Make a Splash!

## Beverage Carts

- Water, juice, milkshakes, fruit slushes
- Popsicles, gelatin, sherbet, ice cream

## T-A-P-S

- Turn, Align, Position, Sips every 2 hours
- Offer fluids: At every individual contact



# Make a Splash!

- Offer fluid with each med pass
  - Keep bedside water fresh and accessible
  - Provide a beverage at every activity
- 
- Be sure those on thickened liquids receive adequate fluids of the correct consistency
  - Monitor fluid intake for those at risk and record per facility policy



# Fluids at End of Life

If minimal fluids are consumed or intake ceases despite all efforts, continue to:

- Offer, provide and encourage fluids
- Offer ice chips and alternate fluids: juice, popsicles, flavored ices, sherbet, gelatin, pudding, milkshakes, hot cocoa, soup, etc.

Provide good oral care



# Remember

1. Know and watch for:
  - Risk factors for dehydration
  - Signs and symptoms of dehydration
2. Report refusal of fluid or poor fluid intake to a supervisor
3. Offer, provide and encourage fluids:
  - Between meals! With meals!
  - At every individual contact!

# Hydration! It's a Splash!

## **SPLASH:**

- **S**taff
- **P**roviding
- **L**iquids
- **A**lways
- **S**ecures
- **H**ydration





**Hydration -  
It's a Splash!**

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# Presenter's Notes



## Hydration - It's a Splash!



**Audience:** Nursing staff, nursing assistants, food/dining staff

Welcome to our inservice on "Hydration! It's a Splash!"

**Presenter Note (Optional):** Before we get started, let's test your knowledge with a short pre-test.

# Hydration - It's a Splash!



## Objectives

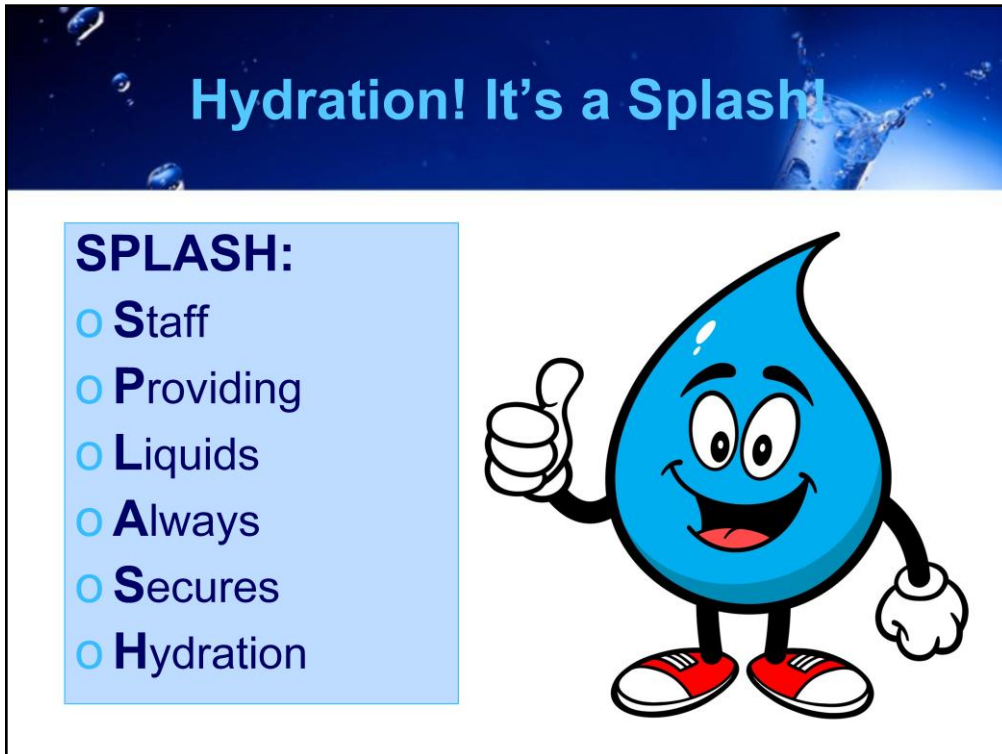
1. Identify risk factors which lead to dehydration
2. Learn how to provide sufficient fluid intake to maintain hydration and health

Today we are going to learn about dehydration and what we can do to help recognize and prevent it.

Our learning objectives for this inservice are to:

1. Identify risk factors which lead to dehydration.
2. Learn how to provide sufficient fluid intake to maintain hydration and health.


## Hydration - It's a Splash!



**Hydration! It's a Splash!**

**SPLASH:**

- Staff
- Providing
- Liquids
- Always
- Secures
- Hydration



To set the stage, our friend *Splash* will make hydration fun and easy. Remembering the acronym “SPLASH” can help you keep hydration in mind at all times!

Remember SPLASH:

**S**taff

**P**roviding

**L**iquids

**A**lways

**S**ecures

**H**ydration

Later in this presentation we will provide specific information to help you provide liquids to secure hydration.

## Hydration - It's a Splash!

**Dehydration is . . .**

- o When the body's water output exceeds input

Always debilitating

↓

Potentially fatal

Dehydration occurs when body water output exceeds fluids consumed. In a healthy, young adult, water represents about 75-85% of the body's total weight. Water carries nutrients and waste, lubricates the joints, regulates temperature, and maintains blood volume.

Water output includes:

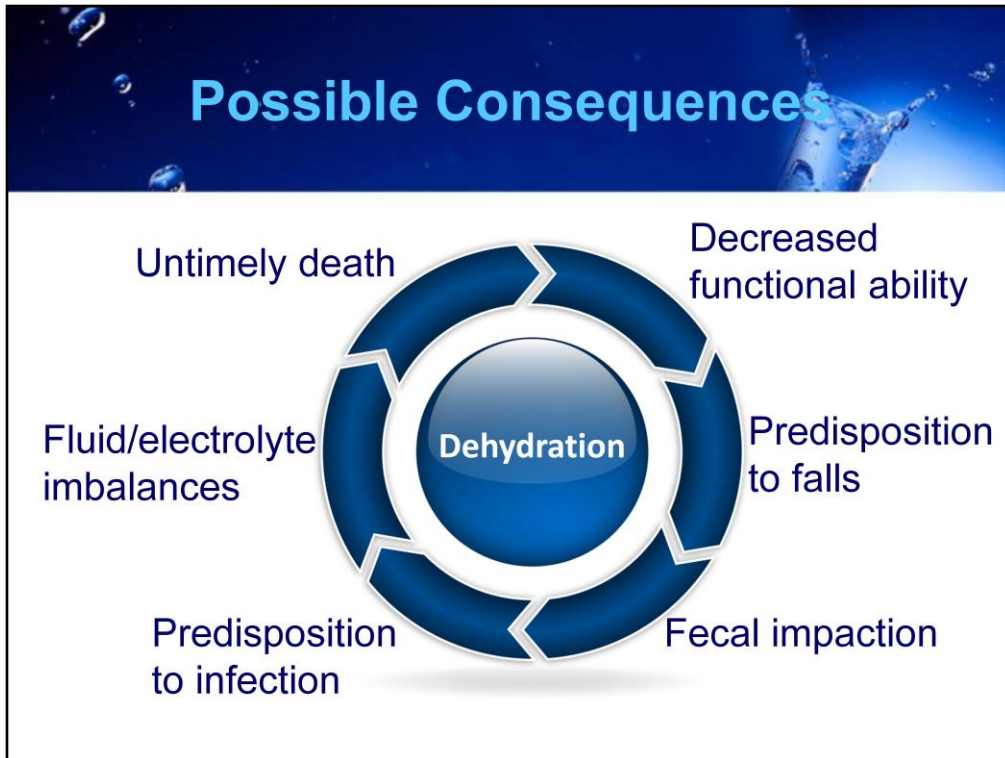
- Body water lost through perspiration (sweat), respiration (breathing), urination, and through the GI tract (stools).
- Loss of 10% of body water can damage essential systems. Loss of 20% of body water may cause death.
- The body cannot store water, so the amount lost every 24 hours must be replaced to maintain health and body function.

Water input includes:

- Fluid consumed from foods and beverages.
- IVs, tube feedings, TPN.
- 200-300 mL that is generated as the result of food oxidation.

**Presenter Note:** References: Charney P. Clinical: Water, Electrolytes, and Acid-Base Balance. In Mahan LK, Escott-Stump S, Raymond JL. Krause's Food and the Nutrition Care Process, 13<sup>th</sup> ed. St. Louis MO: Elsevier Saunders; 2012:178-190.

## Hydration - It's a Splash!



The possible consequences of dehydration include:

- Decreased functional ability
- Predisposition to falls
- Fecal impaction
- Predisposition to infection (especially urinary tract infections)
- Fluid/electrolyte imbalances
- Untimely death

Dehydration is both a cause and an effect of disability. It may help contribute to disability because of the weakness associated with an electrolyte imbalance.

## Hydration - It's a Splash!

### Risk is Higher for Older Adults

- Total body water decreases with age
- Kidney function declines with age
- Ability to feel thirst declines with age
- Increased dependence on care-givers for food and fluid, unable to verbalize needs
- Fear of urinary incontinence

The risk for dehydration is higher in older adults because:

- Total body water decreases from 75% of body weight in young people to 55% of total body weight in older adults.
- With age, the kidneys begin lose their ability to concentrate urine.
- Thirst sensitivity decreases with age, which can lead to inadequate fluid intake. Loss of thirst sensation is caused by several metabolic changes that occur with aging. As a result, older adults don't feel thirsty and may not drink as much.

Dependence on care-givers (staff or family) for food and fluid can result in a decreased fluid intake. If a person is unable to verbalize needs because of physical or cognitive problems, there is an increased risk of dehydration. Dependence can be caused by limited mobility, cognitive problems, or both.

Fear of urinary frequency, incontinence, or having to get up in the middle of the night to urinate may result in a voluntary decrease in fluid intake.

**Presenter Note:** Source: Chernoff R. Carbohydrate, Fat, and Fluid Requirements in Older Adults. In Chernoff R, ed. Geriatric Nutrition, 4<sup>th</sup> ed. Burlington MA: Jones and Bartlett Learning; 2014: 27-34.



## Hydration - It's a Splash!



### Risk Factors

- Nausea, vomiting, diarrhea
- Dysphagia
- Hot room temperature
- Fever, infection
- Excessive sweating or urination
- Tube feeding
- Medications such as diuretics and laxatives
- Refusing fluids or limited intake
- Wounds
- Air fluidized bed
- Renal disease
- Burns

There are multiple risk factors that contribute to dehydration:

- Nausea, vomiting, diarrhea
- Dysphagia (which can result in a decrease in food and fluid intake, especially if puree diet or thickened liquids are not well-received)
- Hot room temperature
- Fever, infection
- Excessive sweating or urination
- Tube feeding, if fluid or feeding volume is inadequate or feeding and flushes are held because of medical problems, appointments, etc.
- Medications such as diuretics, laxatives
- Refusing fluids, limited intake of food and fluids
- Wounds, especially if they are bleeding or draining
- Air fluidized bed, which are often used for people with wounds
- Renal disease
- Burns



## Hydration - It's a Splash!



Dehydration may progress into a major problem in those with high risk - beginning with (and advancing to):

- Thirst: Can they recognize that they are thirsty? If not, they may become dehydrated if they do not attempt to or remember to drink liquids throughout the day.
- Weakness: You may notice changes in ability to do things independently, or they may complain that they are tired.
- Exhaustion: Weakness may turn into exhaustion as the dehydration progresses. They may not want to do the activities that they normally do - or may choose to stay in bed.
- Delirium: You may see changes in their mental ability. They may become confused or more seem more confused/disoriented than normal.
- Death can occur if dehydration is left untreated.

### Physical Signs

- Dry skin, cracked lips, dry mouth
- Dizziness on sitting/standing
- Falls
- Confusion/change in mental status
- Decreased urine output (dark urine)
- Poor skin turgor
- Constipation
- Fever
- Sunken eyes

Physical symptoms of dehydration can be observed. If an individual has any of these symptoms, interventions for dehydration are needed:

- Dry skin, cracked lips, dry mouth
- Dizziness on sitting/standing
- Falls
- Confusion/Change in mental status
- Decreased urine output and/or dark colored urine
- Poor skin turgor
- Constipation
- Fever
- Sunken eyes

## Hydration - It's a Splash!



### Prevention

1. Identify individuals at risk
2. Encourage fluids:
  - with and between meals
  - at each contact
3. Inform other staff of potential problems with fluid intake
4. Involve the individual in prevention of dehydration

Everyone who is involved in giving daily care to the individual needs to help prevent dehydration. Nursing, dining services, activities, and social service are all members of the hydration team.

To prevent dehydration:

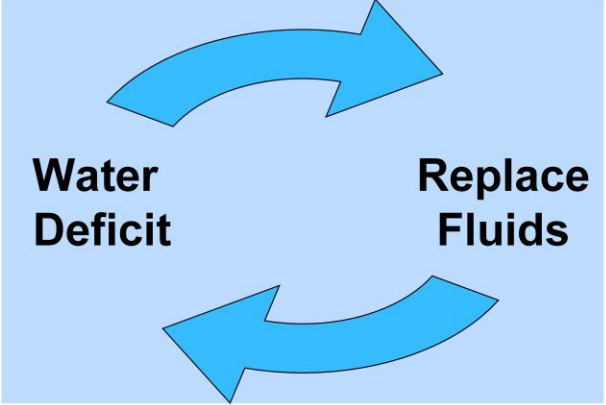
1. Identify individuals at risk: Inform the individual of the risk of dehydration. Risks are usually identified as part of the care planning process and/or as staff reports signs/symptoms and/or risk factors.
2. Encourage Fluids: With meals, between meals, and at each contact with the individual (personal care, ADL care, medication passes, activities, etc.).
3. Inform appropriate staff of potential problems with fluid intake.
4. Involve the individual (and/or their loved ones). Obtain beverage preferences, encourage fluid intake, encourage family members to offer fluids when visiting.

## Hydration - It's a Splash!

**Treatment:**  
**Water Deficit → Replace Fluids**

**Fluid Losses**

- Poor fluid intake
- Sweating
- Fever
- Infection
- Draining wounds



**Water Deficit**                      **Replace Fluids**

Dehydration is best treated when caught in the early stages.

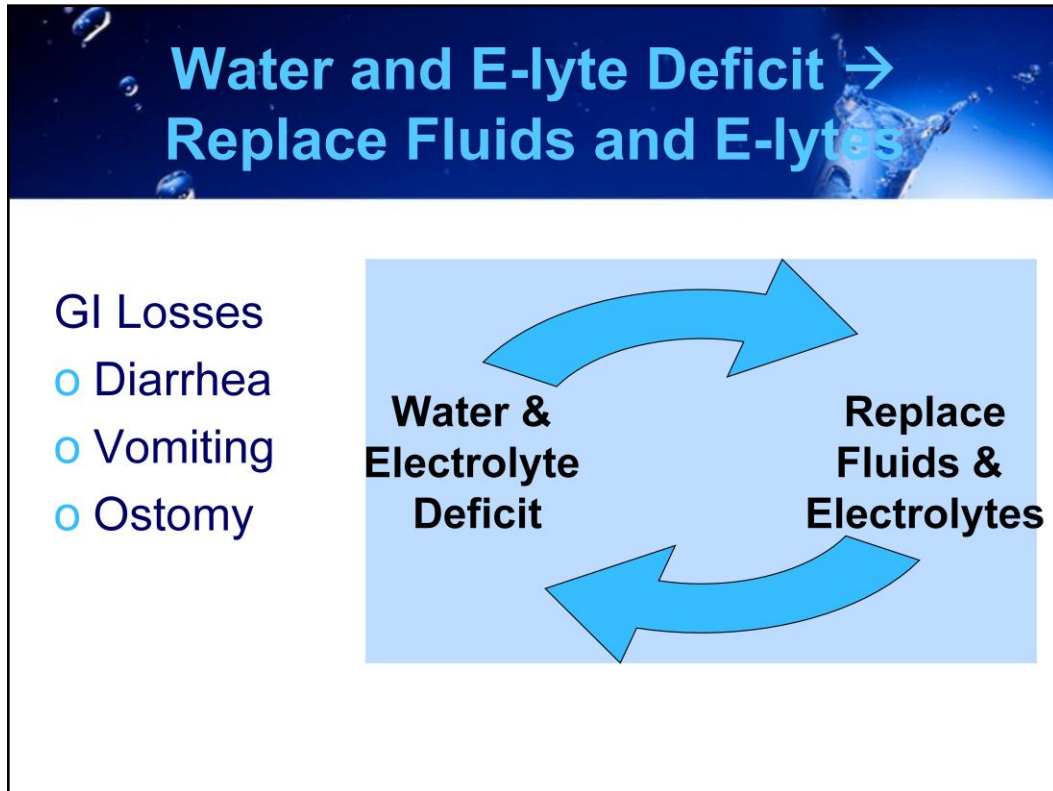
- Oral rehydration is the best option for individuals who become dehydrated.
- Some individuals will require rehydration using an IV or feeding tube if they cannot or will not consume fluids orally.

Depending on the cause of dehydration, the intervention will vary.

If an individual has lost fluids due to lack of adequate fluid intake, sweating, fever, infection, or draining wounds:

- They are losing mostly water
- They need more fluids

## Hydration - It's a Splash!



If an individual has lost fluids due to gastrointestinal (GI) losses such as diarrhea, vomiting or ostomy fluid losses, they need water and electrolyte replacement. Products specifically designed for replacement of electrolytes contain:

- Glucose (helps bring electrolytes into the cells)
- Sodium
- Potassium
- Chloride

The doctor and/or registered dietitian nutritionist (RDN) will determine the correct fluid and electrolyte replacement for the individual. The nursing staff will encourage them to drink fluids to regain hydration and/or electrolyte balance.

## Hydration - It's a Splash!



### Questions to Consider

1. Are we assisting those who are unable to reach, pour, and drink independently?
2. Are fluids offered frequently, and are fluid preferences honored?
3. Do we encourage fluids, monitor intake and check output?
4. Do we provide the correct fluid consistency for each individual?
5. Is the room too warm?

Consider these questions as part of the plan to prevent dehydration:

1. Are we assisting those who are unable to reach, pour, and drink independently?
2. Are fluids offered frequently, and are fluid preferences honored?
3. Do we encourage fluids, monitor intake and check output?
4. Do we provide the correct fluid consistency for each individual?
5. Is the room too warm?

## Hydration - It's a Splash!



### Caregivers Should Know

The individual's:

- Diet order
- Correct fluid consistency
- Fluid restriction (if any)
- Ability to obtain/drink fluids independently
- Fluid preferences

You need to know:

- The individual's diet order. For example, do they need unsweetened beverages?
- The correct fluid consistency. Do they need nectar thick or spoon thick liquids?
- Whether the individual is on a fluid restriction due to a medical condition, and if so, how much fluid is given on meal trays and between meals?
- The individual's ability to obtain and drink fluids independently. Is assistance needed? Are adaptive cups used and available?
- The individual's fluid preferences. People will usually drink more if they like the fluids offered to them.

**Before giving fluids: Be sure you know whether the individual is on any type of fluid restriction (amount, consistency, sugar restrictions, sodium restrictions, etc.), and whether they need a specific fluid consistency (nectar thick, honey thick or spoon thick).**



### Fluid Needs

30 mL/kg body weight

- Provide a minimum of 1500 mL/day for all individuals (unless on fluid restrictions)

Example:

- 150 pounds = 68 kg
- 68 kg X 30mL = 2040 mL (or 8½ cups fluid daily)

How can we determine how much fluid a person needs? Fluid needs vary and there are several ways to estimate them, but a quick method is to provide 30 mL of fluid for every kilogram of body weight for adults.

Example: [(To convert pounds to kilograms, divide by 2.2. (150 pounds/2.2 = 68 kilograms)]

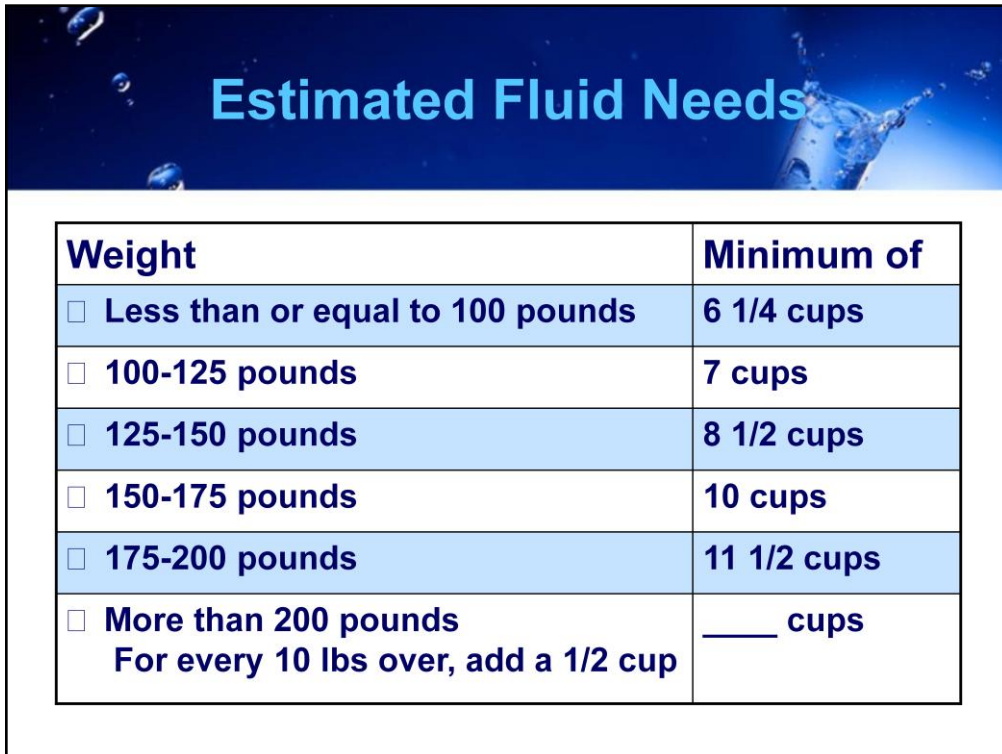
68 x 30 = 2040 mL

1 cup = 240 mL, so divide 2040 mL by 240 = 8 ½ cups

A good standard of care is to provide a minimum of 1000-1500 mL of fluid daily on meal trays unless otherwise contraindicated: 1500 mL fluid equals about 6¼ cups a day. Two, 8 ounce beverages on each meal tray = 6 cups. Additional fluids would be provided in between meals and with medication passes.

Presenter Note: There are alternate ways to calculate fluids. For more information ask your registered dietitian nutritionist (RDN).

## Hydration - It's a Splash!



Weight	Minimum of
<input type="checkbox"/> Less than or equal to 100 pounds	6 1/4 cups
<input type="checkbox"/> 100-125 pounds	7 cups
<input type="checkbox"/> 125-150 pounds	8 1/2 cups
<input type="checkbox"/> 150-175 pounds	10 cups
<input type="checkbox"/> 175-200 pounds	11 1/2 cups
<input type="checkbox"/> More than 200 pounds For every 10 lbs over, add a 1/2 cup	____ cups

This chart (in slide) will guide you in deciding how much fluid is needed every day for hydration. Every person is different and more or less fluid may be needed based on individual health conditions. The doctor and/or registered dietitian nutritionist (RDN) can assist you in determining specific fluid needs.

**Note:** Using 30 mL/kg body weight can result in extremely high fluid estimates for overweight or obese people. Some people recommend 1 mL/calorie consumed, which may be more realistic. For a person eating 2000 calories per day, this would be 2000 mL/day, or 8.3 cups of fluid daily. Refer obese and extremely obese individuals to your RDN to determine fluid needs.

### Fluid Needs

Additional fluids are needed for:

- Fever, diarrhea, vomiting
- Profuse sweating
- Draining wounds; special wound beds

Fewer fluids may be required for:

- Renal disease
- Heart failure

More fluids (approximately 35 mL/kg) are needed if a individual has:


- Fever, diarrhea, vomiting
- Profuse sweating
- Draining wounds
- Special bed for wound healing

Less fluid (approximately 25 mL/kg) may be required for:

- Renal disease
- Heart failure

Remember, in general, older people have decreased thirst sensation. Many are on diuretic therapy which decreases body fluids even more. Many are often “cold” and wear multiple layers of clothes or use extra blankets at night which may increase sweating. Try to remember this when estimating fluid needs for the day.

## Hydration - It's a Splash!



### Sources of Fluids


- Beverages: water, milk, juice, water, tea, coffee, soda, fruit punch, milkshakes, oral nutritional supplements
- Ice cream, sherbet, pudding, broth, soup, gelatin, popsicles
- Some foods are high in fluids, such as fruits and vegetables and soups and stews

Sources of fluids include:

- Beverages: Water, milk, juice, water, tea, coffee, soda, fruit punch, milkshakes, oral nutritional supplements.
  - Ice cream, sherbet, pudding, broth, soup, gelatin, popsicles.
  - Coffee, tea, and other beverages with caffeine can be used to help meet fluid needs.
- Food: By one estimate, food provides up to 28% of the fluids consumed each day. High fluid-foods include fruits and vegetables, soups, and stews (just another good reason to eat those fruits and vegetables every day!)

**Presenter Note:** Source: National Academy of Sciences. Dietary Reference Intakes for Water, Potassium, Sodium, Chloride, and Sulfate. <http://www.nap.edu/catalog/10925.html>.

## Hydration - It's a Splash!




Measuring Liquids			
1 cup	= 8 oz	= 240 mL	Soup bowl or 8 ounce glass
$\frac{3}{4}$ cup	= 6 oz	= 180 mL	Coffee cup
$\frac{1}{2}$ cup	= 4 oz	= 120 mL	Juice glass
$\frac{1}{3}$ cup	= $3\frac{1}{3}$ oz	= 80 mL	
$\frac{1}{4}$ cup	= 2 oz	= 60 mL	

These are typical measurements and some of the containers that might hold these amounts of fluids:

1 cup glass	= 8 oz	= 240mL	Soup bowl, 8 ounce
$\frac{3}{4}$ cup	= 6 oz	= 180 mL	Coffee cup
$\frac{1}{2}$ cup	= 4 oz	= 120 mL	Juice glass
$\frac{1}{3}$ cup	= $3\frac{1}{3}$ oz	= 80 mL	
$\frac{1}{4}$ cup	= 2 oz	= 60 mL	

**Presenter Note:** Check the cups and bowls in in your facility to be sure of the correct measurements. It helps to actually show the cups, glasses and bowls and tell staff how much fluid is in each. You can even put a note on each cup, glass and bowl to tell how much fluid it holds. Make a poster/handout so information is readily available to staff during and after staff training.



### Thickened Liquids

Some individuals cannot or should not drink thin liquids due to swallowing problems

Thin liquids:

- Water, tea, coffee, soda, clear juice, broth, plain gelatin
- Milk, supplements, ice cream, frozen yogurt, sherbet, popsicles (become thin at room temperature)

Some individuals cannot tolerate thin liquids due to swallowing difficulty, and therefore need their liquids thickened.

Thin liquids include:

- Water, tea, coffee, soda, clear juice, broth, and plain gelatin.
- Milk, supplements, ice cream, frozen yogurt, gelatin and sherbet are considered thin liquids because they are thin at room temperature and/or body temperature.



## Hydration - It's a Splash!



Nectar Thick	Honey Thick
<ul style="list-style-type: none"><li>○ Peach, pear or apricot nectars</li><li>○ Vegetable juices (tomato, V-8)</li><li>○ Pre-thickened beverages or those thickened in-house</li></ul>	<ul style="list-style-type: none"><li>○ Pre-thickened beverages</li><li>○ Beverages thickened in-house</li></ul>

**Nectar thick liquids** are the consistency of nectar and include:

- Nectars (peach, pear, apricot): These must be shaken well.
- Vegetable juices (tomato, V-8): These must be shaken well.
- Thin liquids that are thickened to a nectar consistency.

**Honey-thick** liquids are the thickness of honey and require a thickening agent.

Thickened beverages can be purchased pre-thickened or prepared in-house using commercial thickening agents. Milk, water, juices, and iced tea are among the beverages that are sold pre-thickened.

**Presenter Note:** There are commercial supplements such as frozen ice cream products that do not melt to a liquid at room like regular ice cream or sherbet would. These can be used safely for people on thickened liquids (just check to be sure that the thickness level is appropriate for the individual). Check with your food service vendor to find products like these if desired.



## Hydration - It's a Splash!



### Spoon Thick

- Thickened to the consistency of pudding
- Use a commercial thickening agent
- Flavor of original liquid may be changed, making it less appealing to the individual
- May be difficult for individuals to consume enough spoon-thick liquids to achieve hydration

Spoon thick liquids are thickened to the consistency of pudding (sometimes called “pudding-thick liquids”).

- Use of commercial thickening agent is needed.
- It is difficult to achieve hydration at this level of thickness:
  - The flavor of original liquid may be changed, making it less attractive to the individual.
  - Spoon thick liquids can be filling and difficult to consume along with all of the food at meals.

**It’s very important to encourage individuals on spoon thick liquids to consume as much liquid as possible to prevent dehydration.**

## Hydration - It's a Splash!

### 4 Questions To Ask

Can the individual

1. Verbalize the desire to drink?
2. Obtain and drink fluids independently?

If "no"



Assist as much as possible

Report your observations to a supervisor

To help determine how closely you may need to watch someone for warning signs of dehydration, answer these 4 questions:

1. Can the individual verbalize the desire to drink?
2. Can the individual obtain and drink their own fluids independently?

If the answer is "no" to either of these questions, provide assistance as much as possible, and report your observations to a supervisor.

**Presenter Note:** Continued next slide

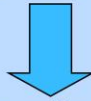
## Hydration - It's a Splash!

### 4 Questions To Ask

Is the individual

3. Willing/able to drink as much fluid as needed to remain hydrated?
4. Free of problems such as vomiting, diarrhea, ostomy fluid losses, etc.?

If "no"



Report your observations to a supervisor

3. Is the individual willing/able to drink as much fluid as they need?
4. Is the individual free of problems such as vomiting, diarrhea, ostomy fluid losses, etc.?

If the answer to either of these questions is no, you should refer to a supervisor, because medical intervention may be needed.

## Hydration - It's a Splash!



**Make a Splash!**

- Identify high risk individuals
  - Hydration bracelet
  - Bright napkin
  - Colored tray mats
- Encourage fluids
  - “Hydration Station”
  - “Happy Hour”
  - “Wet Your Whistle” breaks
  - Beverage cart
  - “Coffee club”

What can we do to promote hydration? Here are some creative ideas to try:

To identify high-risk individuals who need to drink more fluids, consider using a:

- Hydration “bracelet” (color coded band)
- Bright napkin at their place setting or on their tray
- Color coded place mat at their place setting or on their tray

To encourage fluid intake:

- Have a “Hydration Station”: A self-serve station with juice/beverage machines, iced tea and lemonade urns, and water in a common area.
- Offer a “Happy Hour” with non-alcoholic beer, soft drinks, and other beverages.
- Provide “Wet Your Whistle” breaks after activities.
- Have a morning or afternoon coffee (or tea) club, and feature specialty coffees (or teas).
- Provide a Beverage Cart service at specific times of day that is transported to common areas and individual’s rooms.

Additional beverages are particularly important during summer months, but may also be important during cold months when the furnace is running frequently.

## Hydration - It's a Splash!



### Make a Splash!

**Beverage Carts**

- Water, juice, milkshakes, fruit slushes
- Popsicles, gelatin, sherbet, ice cream

**T-A-P-S**

- Turn, Align, Position, Sips every 2 hours
- Offer fluids: At every individual contact

For individuals that are less mobile or need more assistance, beverage carts (can be taken to each individual's room and to common areas) to offer:

- Water (make your own flavored water using citrus or other fruit slices, or splashes of juice mixed with water)
- Juice
- Milkshakes
- Fruit slushes
- Popsicles
- Gelatin, sherbet, ice cream

For individual who spend most of their time in bed, consider:

- TAPS: Turn, Align, Position, Sips of fluid every 2 hours.
- Offer fluids at every individual contact (personal care, ADL assistance, etc.).

## Hydration - It's a Splash!



### Make a Splash!

- Offer fluid with each med pass
- Keep bedside water fresh and accessible
- Provide a beverage at every activity

- Be sure those on thickened liquids receive adequate fluids of the correct consistency
- Monitor fluid intake for those at risk and record per facility policy

Creative ideas (continued):

- Nursing can offer fluid with each medication pass.
- Keep bedside water fresh and accessible.
- Provide a beverage at every activity.

Be sure individuals on thickened liquids receive adequate fluids at the correct consistency (including when they attend activities or therapies).

Monitor fluid intake for those at risk of dehydration and record per facility policy.



## Hydration - It's a Splash!



### Fluids at End of Life

If minimal fluids are consumed or intake ceases despite all efforts, continue to:

- Offer, provide and encourage fluids
- Offer ice chips and alternate fluids: juice, popsicles, flavored ices, sherbet, gelatin, pudding, milkshakes, hot cocoa, soup, etc.

Provide good oral care

At the end of life, some people want tube feeding or IV fluids and others don't. If tube feedings or IV fluids are not desired, comfort is the goal of care. Caregivers should:

- Continue to offer, provide, and encourage fluids.
- Offer ice chips and alternate fluids (juice, popsicles, flavored ices, sherbet, gelatin, pudding, milkshakes, hot cocoa, soup, etc., at the appropriate consistency).
- Provide good oral care; swabs to moisten mouth and clean teeth and gums, if feasible given the individual's condition.

Realize that the individual can decide to have IVs or tube feedings at any time - or alternately, can decide to stop IVs or tube feedings at any time they wish.

Regardless of what decisions are made, continue to **Offer, Provide, and Encourage** fluid intake, unless an individual is on strict NPO (nothing by mouth) due to swallowing problems.



## Hydration - It's a Splash!



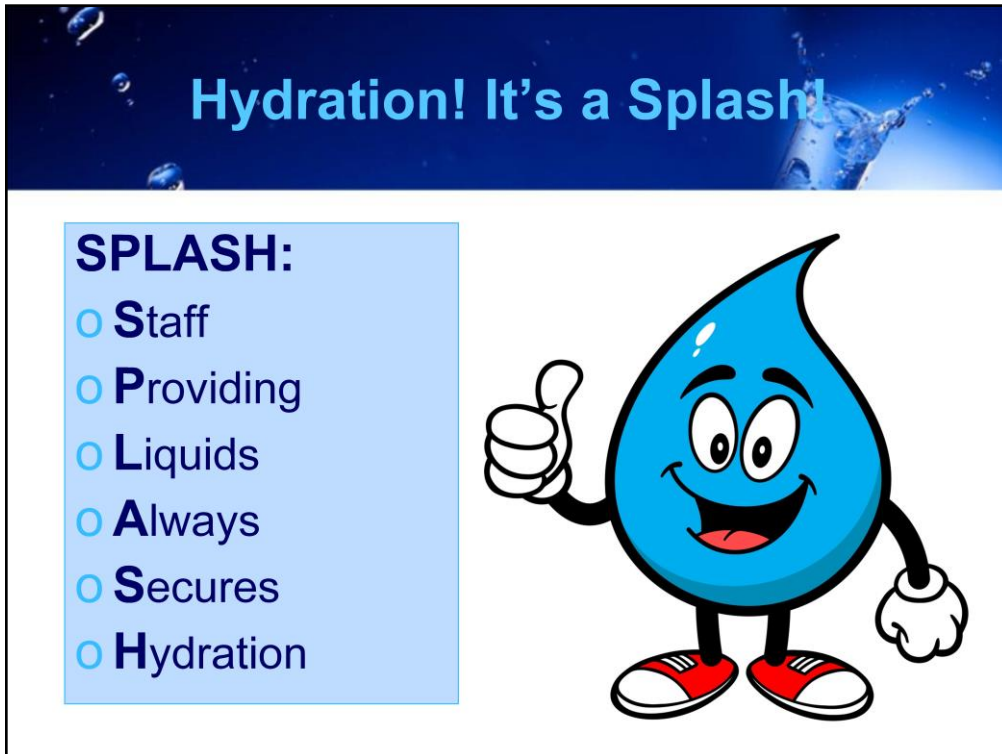
**Remember**

1. Know and watch for:
  - Risk factors for dehydration
  - Signs and symptoms of dehydration
2. Report refusal of fluid or poor fluid intake to a supervisor
3. Offer, provide and encourage fluids:
  - Between meals! With meals!
  - At every individual contact!

### Remember:

1. Know the risk factors for dehydration: Poor intake of fluids, vomiting, diarrhea, excessive sweating, fever, infection, diuretic or laxative therapy, dysphagia, renal disease, burns, and/or air fluidized beds.
  - Watch for the signs and symptoms of dehydration: Dry mouth, cracked lips, dry skin, weight loss, dizziness, confusion, dark urine, constipation, fever, thirst, weakness, confusion.
2. Report refusal of fluid (or less than 6 cups fluids/day).
3. Remember: Offer, provide and encourage fluid at every individual contact: when assisting with personal care or ADLs, at medication passes, etc.


## Hydration - It's a Splash!



**Hydration! It's a Splash!**

**SPLASH:**

- Staff
- Providing
- Liquids
- Always
- Secures
- Hydration



Use our friend *Splash* to make hydration fun and easy to remember.  
SPLASH stands for:

**S**taff

**P**roviding

**L**iquids

**A**lways

**S**ecures

**H**ydration

Thank you for helping to keep everyone well hydrated!

### **Presenter Notes:**

Questions and Answers.

Optional: Post-test.



**Hydration -  
It's a Splash!**

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# Handouts

# Hydration - It's a Splash!



## Objectives

1. Identify risk factors which lead to dehydration
2. Learn how to provide sufficient fluid intake to maintain hydration and health

## Hydration! It's a Splash!

### SPLASH:

- Staff
- Providing
- Liquids
- Always
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- Hydration



## Dehydration is . . .

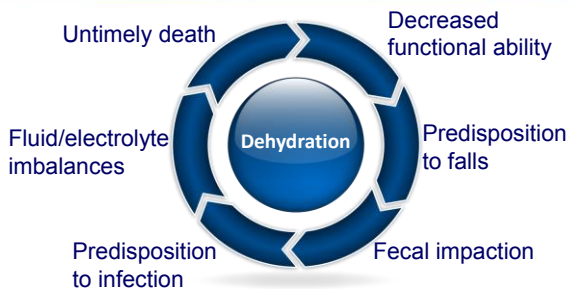
- When the body's water output exceeds input

Always debilitating



Potentially fatal

## Possible Consequences



## Risk is Higher for Older Adults

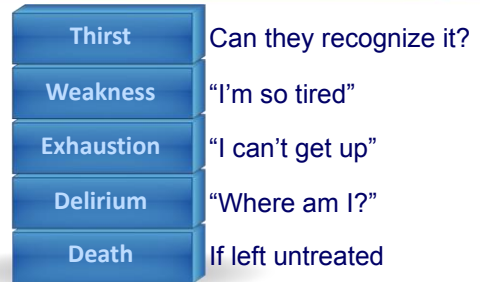
- Total body water decreases with age
- Kidney function declines with age
- Ability to feel thirst declines with age
- Increased dependence on care-givers for food and fluid, unable to verbalize needs
- Fear of urinary incontinence

# Hydration - It's a Splash!

## Risk Factors

- Nausea, vomiting, diarrhea
- Dysphagia
- Hot room temperature
- Fever, infection
- Excessive sweating or urination
- Tube feeding
- Medications such as diuretics and laxatives
- Refusing fluids or limited intake
- Wounds
- Air fluidized bed
- Renal disease
- Burns

## Progression of Dehydration



## Physical Signs

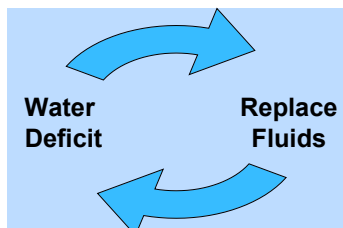
- Dry skin, cracked lips, dry mouth
- Dizziness on sitting/standing
- Falls
- Confusion/change in mental status
- Decreased urine output (dark urine)
- Poor skin turgor
- Constipation
- Fever
- Sunken eyes

## Prevention

1. Identify individuals at risk
2. Encourage fluids:
  - with and between meals
  - at each contact
3. Inform other staff of potential problems with fluid intake
4. Involve the individual in prevention of dehydration

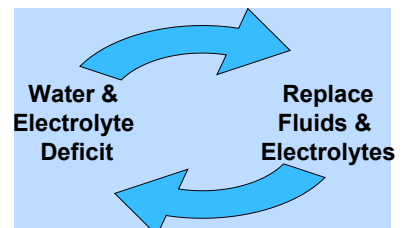
## Treatment: Water Deficit → Replace Fluids

- Fluid Losses
- Poor fluid intake
  - Sweating
  - Fever
  - Infection
  - Draining wounds



## Water and E-lyte Deficit → Replace Fluids and E-lytes

- GI Losses
- Diarrhea
  - Vomiting
  - Ostomy





# Hydration - It's a Splash!

## Questions to Consider

1. Are we assisting those who are unable to reach, pour, and drink independently?
2. Are fluids offered frequently, and are fluid preferences honored?
3. Do we encourage fluids, monitor intake and check output?
4. Do we provide the correct fluid consistency for each individual?
5. Is the room too warm?

## Caregivers Should Know

The individual's:

- Diet order
- Correct fluid consistency
- Fluid restriction (if any)
- Ability to obtain/drink fluids independently
- Fluid preferences

## Fluid Needs

30 mL/kg body weight

- Provide a minimum of 1500 mL/day for all individuals (unless on fluid restrictions)

Example:

- 150 pounds = 68 kg
- 68 kg X 30mL = 2040 mL (or 8½ cups fluid daily)

## Estimated Fluid Needs

Weight	Minimum of
<input type="checkbox"/> Less than or equal to 100 pounds	6 1/4 cups
<input type="checkbox"/> 100-125 pounds	7 cups
<input type="checkbox"/> 125-150 pounds	8 1/2 cups
<input type="checkbox"/> 150-175 pounds	10 cups
<input type="checkbox"/> 175-200 pounds	11 1/2 cups
<input type="checkbox"/> More than 200 pounds For every 10 lbs over, add a 1/2 cup	____ cups

## Fluid Needs

Additional fluids are needed for:

- Fever, diarrhea, vomiting
- Profuse sweating
- Draining wounds; special wound beds

Fewer fluids may be required for:

- Renal disease
- Heart failure

## Sources of Fluids

- Beverages: water, milk, juice, water, tea, coffee, soda, fruit punch, milkshakes, oral nutritional supplements
- Ice cream, sherbet, pudding, broth, soup, gelatin, popsicles
- Some foods are high in fluids, such as fruits and vegetables and soups and stews

# Hydration - It's a Splash!

## Measuring Liquids

1 cup	= 8 oz	= 240 mL	Soup bowl or 8 ounce glass
¾ cup	= 6 oz	= 180 mL	Coffee cup
½ cup	= 4 oz	= 120 mL	Juice glass
⅓ cup	= 3⅓ oz	= 80 mL	
¼ cup	= 2 oz	= 60 mL	

## Thickened Liquids

Some individuals cannot or should not drink thin liquids due to swallowing problems

Thin liquids:

- Water, tea, coffee, soda, clear juice, broth, plain gelatin
- Milk, supplements, ice cream, frozen yogurt, sherbet, popsicles (become thin at room temperature)

## Nectar Thick

## Honey Thick

- Peach, pear or apricot nectars
- Vegetable juices (tomato, V-8)
- Pre-thickened beverages or those thickened in-house

- Pre-thickened beverages
- Beverages thickened in-house

## Spoon Thick

- Thickened to the consistency of pudding
- Use a commercial thickening agent
- Flavor of original liquid may be changed, making it less appealing to the individual
- May be difficult for individuals to consume enough spoon-thick liquids to achieve hydration

## 4 Questions To Ask

Can the individual

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If "no"



Assist as much as possible  
Report your observations to a supervisor

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Is the individual

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4. Free of problems such as vomiting, diarrhea, ostomy fluid losses, etc.?

If "no"



Report your observations to a supervisor



# Hydration - It's a Splash!

## Make a Splash!

Identify high risk individuals

- Hydration bracelet
- Bright napkin
- Colored tray mats

Encourage fluids

- "Hydration Station"
- "Happy Hour"
- "Wet Your Whistle" breaks
- Beverage cart
- "Coffee club"

## Make a Splash!

Beverage Carts

- Water, juice, milkshakes, fruit slushes
- Popsicles, gelatin, sherbet, ice cream

T-A-P-S

- Turn, Align, Position, Sips every 2 hours
- Offer fluids: At every individual contact

## Make a Splash!

- Offer fluid with each med pass
- Keep bedside water fresh and accessible
- Provide a beverage at every activity

- Be sure those on thickened liquids receive adequate fluids of the correct consistency
- Monitor fluid intake for those at risk and record per facility policy

## Fluids at End of Life

If minimal fluids are consumed or intake ceases despite all efforts, continue to:

- Offer, provide and encourage fluids
- Offer ice chips and alternate fluids: juice, popsicles, flavored ices, sherbet, gelatin, pudding, milkshakes, hot cocoa, soup, etc.

Provide good oral care

## Remember

1. Know and watch for:
  - Risk factors for dehydration
  - Signs and symptoms of dehydration
2. Report refusal of fluid or poor fluid intake to a supervisor
3. Offer, provide and encourage fluids:
  - Between meals! With meals!
  - At every individual contact!

## Hydration! It's a Splash!

**SPLASH:**

- Staff
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- Always
- Secures
- Hydration



# Hydration - It's a Splash!

## Pre/Post Test



### True/False (*Circle your choice*)

1. Dehydration can be fatal.  
**True**                      **False**
2. Chronic constipation may indicate dehydration.  
**True**                      **False**
3. Residents who fall often may be dehydrated.  
**True**                      **False**
4. Residents who have wounds or who are on special beds for wounds should limit their fluids.  
**True**                      **False**
5. Residents who can't verbalize their needs are at risk for dehydration.  
**True**                      **False**
6. Residents who receive thickened liquids must get them between meals.  
**True**                      **False**
7. A resident on a tube feeding will never be dehydrated.  
**True**                      **False**
8. A resident with a fever may need extra fluid.  
**True**                      **False**
9. Every patient can benefit from increasing their fluid intake.  
**True**                      **False**
10. The environmental/room temperature may be a contributing factor to hydration status.  
**True**                      **False**

# Hydration - It's a Splash!

## Pre/Post Test Answer Key



1. True
2. True
3. True
4. False
5. True
6. True
7. False
8. True
9. False
10. True



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