

Section 9

Hydration

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9.1 Why is Hydration Important?

Adequate hydration promotes good digestion, helps to regulate body temperature, and supports normal function in the body.¹

Adequate hydration is reached when enough fluids are consumed to replace normal day-to-day fluid loss, and also any other unexpected fluid losses like those related to acute illness.²

9.2 Dehydration

Dehydration is a decrease in the amount of water in the body. This happens when fluid losses are greater than fluid intake.

Maintaining fluid balance is less efficient in older residents, making them more likely to get dehydrated.¹

Some common causes of dehydration are:¹

- decreased appetite
- low fluid intake
- vomiting, diarrhea
- difficulty swallowing
- reduced thirst
- inability to communicate needs like thirst
- taste changes
- chronic illnesses
- medications
- relying on others for feeding assistance and toileting

Dehydration may result in:^{1,2}

- Poor oral health
- Confusion
- Constipation
- Pressure ulcers and sore, dry skin with delayed wound healing
- Dizziness and low blood pressure which increases the risk of falls
- Increased urinary tract and respiratory infections
- Increased risk of drug interactions and side-effects
- Cognitive changes such as confusion which can lead to behaviour changes and increased risk of falls
- Hospitalization and death
- Urinary tract infections (UTIs)
- Falls

9.3 Signs and Symptoms of Dehydration

Diagnosing dehydration in residents can be difficult. Signs and symptoms of dehydration include:^{1,2}

- Thirst, headache, dry mouth, and lips
- Unusual fatigue, feeling dizzy or lightheaded
- Passing small amounts of dark coloured, strong smelling urine
- Constipation
- Dry, sunken eyes
- Confusion
- Loss of appetite
- Dry or fragile skin, wounds, or skin breakdown

Some severe signs and symptoms of dehydration include delirium, muscle spasms, difficulty swallowing, painful urination, and shriveled skin.²

9.4 How Much Fluid is Needed?

Fluid needs depend on a variety of factors such as the resident's weight, health, environment, age, medication, and activity. Poor appetite, which is common in older adults, may impact overall fluid intake.¹

Fluid requirements in older people are estimated to be between 6–8 cups (1500 mL–2000 mL) daily.^{1,3-6}

Fluid intake is the amount of fluid a resident consumes within a specific period of time. This includes all fluids and also fluids from food. Fluid intake should be sufficient to satisfy thirst and produce lightly-coloured urine.

- Examples of fluids include water, milk, juice, pop, caffeinated beverages such as tea and coffee, alcohol, smoothies, nutrition supplements such as Boost® or Ensure®, and energy drinks.
- Examples of foods that have a high fluid content include soups and broths, jelly desserts, ice cream, sauces, and gravies.

9.5 Hydration Monitoring

In some cases, keeping a 'fluid tracking record' may be useful to ensure residents' meet their fluid needs. Suggestions on when to start a fluid tracking record:

- Signs or symptoms of dehydration
- If fluid intake is observed to be low
- Signs of a urinary tract infection
- It has been requested by a medical professional

Take action – when concerns are raised or when fluid tracking shows that a resident is drinking inadequate fluids, a hydration plan should be added to their care plan as an intervention to help support and prioritize the resident's hydration. All staff should be aware of the changes made to the resident's care plan.

To ensure accurate fluid tracking, it is important for staff to be familiar with the volume held by each type of cup and glass typically used at the site.

Fluid tracking should be completed for **3 days** initially to obtain adequate information on intake and continued for up to **1 week** if necessary.

Common Cup Sizes

Container	*Typical Size
Small paper cup	90 mL (3 oz)
Small water glass	120 mL (4 oz)
Standard water glass	250 mL (8 oz)
Coffee cup	200 mL (7 oz)
Styrofoam cup	200 mL (7 oz)



*Actual sizes may vary by site and supplier

Refer to Appendix 8E: [My Mealtime Intake](#).

Tips for hydration monitoring:

- Educate staff on how to help identify residents at risk for dehydration.
- Keep a list of the residents at risk of dehydration.
- Observe residents' fluid intake during meals to assess hydration risk.
- Routinely monitor residents for dehydration (cracked lips, dry mouth, poor skin turgor, dark-coloured urine, or low urine output).
- Post dehydration information in the nursing station or nursing area to remind staff to monitor the resident's fluid intake.
- Track fluid intake for residents at risk. Place a symbol, such as a "water droplet" or "glass of water" on the resident's room door as a sign for staff to encourage fluid intake.
- A poster with the actual volumes of the cups and glasses used at the site could be posted in nursing stations or in dining rooms as a quick reference tool for staff. Each site can create a poster based on the standardized volumes at the site.
- Regularly communicate with team members regarding residents identified at risk for dehydration (based on site practice) and discuss strategies specific to the resident's goals to promote hydration.

9.6 What are Fluids?

A **fluid** is anything that is liquid at room temperature. Examples of fluids include:

- Water
- Milk
- Tea
- Juice
- Coffee
- Flavored or sparkling water
- Oral rehydration solutions such as G2® or made by the site from a recipe



- Plant-based beverages including soy, rice, oat, and almond
- Drinkable yogurt
- Nutrition Supplements (such as Ensure® or Boost®)
- Ice cream, frozen yogurt, gelato, or sherbet
- Jelly desserts
- Frozen ice pops
- Broth
- Milkshakes
- Soda or pop
- Eggnog
- Buttermilk
- Ice cubes

High fluid foods

Some foods may contain up to 80% water. Eating these foods may help to support hydration. Below are some foods which are high in fluid:

- Soups (broth or cream-based)
- Fruit: canned, frozen, or fresh including strawberries, grapes, apples, oranges, and melons
- Fruit sauces such as applesauce
- Vegetables including lettuce, cabbage, celery, spinach, broccoli, and carrots
- Yogurt
- Hot cereal
- Pudding

9.7 Tips to Improve Fluid Intake

Physical and social setting

- Encourage residents to eat with others.
- Trial using colourful or contrasting tableware and table linens.
- Have a regular seating plan with compatible table partners.
- Keep an easy to lift water jug on each table for easy refills.
- Check if the resident requires assistance or adaptive equipment such as spill-free cup, straw, or nosey cup.
- Provide an inviting dining atmosphere including proper lighting, music, and decor.
- Provide adequate time for residents to enjoy their meal.
- Make fluids more accessible outside of mealtimes by placing water jugs in resident rooms and/or flavoured water dispensers in common areas.
- Have pitchers and glasses within reach of residents in the dining room.
- Make drinks more appealing. For example, use decorative pitchers, cocktail decorations, or fruit garnishes.
- Choose different daily or weekly themes for the drink trolley providing a variety of coloured cups, glasses, or jugs, or provide drinks not usually provided at meals, such as smoothies to encourage intake.

9.8 Care Strategies

This problem solving tool may be a useful way of thinking about a resident who has difficulty drinking:

Mealtimes	<ul style="list-style-type: none">• Increase choice and availability of drinks.• Offer both hot and cold drinks at all meals and snacks (water, milk, juice, tea, or coffee).• Have caffeine-free beverages available (decaffeinated coffee and herbal tea).• Pre-fill water glasses for every resident at meals and offer frequent refills.• If meals are delivered to rooms, provide extra drink servings on trays.• Place filled water pitchers on the dining table at meals so residents can choose to fill their own glasses.• Avoid asking residents “Do you want something to drink?” Instead say, “Here is some cool, refreshing water for you”.• Offer water flavoured by adding lemon/orange slice, cucumber, raspberry, or mint.• Provide seasonal beverages such as hot chocolate, eggnog, iced tea, or lemonade.
Snacks	<ul style="list-style-type: none">• Offer water flavored by adding a lemon or orange slice, cucumber, raspberry, or mint.• Provide seasonal beverages such as hot chocolate, eggnog, iced tea, or lemonade.
Medication times	<ul style="list-style-type: none">• Encourage residents to drink a full glass of fluid with medications.• Space medication delivery apart from mealtimes (if possible) to avoid residents feeling full prior to their meal.

Care strategies (Continued)

<p>Recreation & Physical Activity</p>	<ul style="list-style-type: none"> • Provide fluids before, during, and after physical activity sessions. • Bring portable fluids such as bottled water or juice boxes for group outings and offer them frequently. • Provide spill-proof cups for residents to consume fluid on the go. • Plan “happy hour” or “teatime” events regularly: <ul style="list-style-type: none"> ○ Consider offering a seasonal fruit punch ○ Trial preparing smoothies, milkshakes, ice cream floats, and flavoured ice ○ Offer hydrating seasonal desserts such as sorbets, ice cream, frozen yogurt, and frozen ice pops ○ Provide non-alcoholic beverages for variety such as a virgin Bloody Mary or Shirley Temple ○ Fruit bowl tastings: offer different flavored fruit jelly cut in different shapes to mimic a fruit bowl ○ Tasting sessions for water-based drinks such as different types of teas, juices, and infusions
<p>Other</p>	<ul style="list-style-type: none"> • Offer drinks consistently throughout the day • Educate families about the importance of promoting hydration for their loved one. • Ask residents and families during resident council meetings for suggestions on preferred or alternative beverage ideas • Note individual preferences for type and temperature of fluids to customize hydration plans • Refer resident to the Occupational Therapist for adaptive equipment • Refer resident to the dysphagia team for a swallowing assessment if having difficulty swallowing food or fluids • Offer additional toileting or increase the frequency of changing incontinence products for residents requiring assistance

9.9 Special Considerations

- Some residents with kidney or heart disease may need to limit their fluid intake. The doctor or dietitian may advise of a daily fluid limit.
 - Fluids provided between meals, as snacks, or with medications, should be measured and considered part of the total daily fluid intake if the resident has a fluid limit.
- Some residents may require thickened fluids to swallow safely. Check to see if the resident is on thickened fluids. If thick fluids are required, ensure that all fluids are thickened to the recommended consistency: mildly-thick (nectar), moderately-thick (honey) or extremely-thick (pudding). Follow the directions on the commercial thickening product to make sure fluids are thickened appropriately to ensure safety and enjoyment.
- Provide a minimum of 6 cups (1500 mL) of thickened fluids daily along with appropriate hydrating foods to help meet fluid needs.
- Provide encouragement to residents on thickened fluids and help those who need assistance with meals. For example, thickened fluids may need to be provided by teaspoon for safety which may be challenging for some residents with decreased dexterity or movement limitations. Straws are not advised to be used with moderately-thick (honey) or extremely-thick (pudding) liquids.
- Foods that melt-in-the-mouth are classified as a thin fluid and should not be served to residents on a thickened fluid diet. Examples of foods that melt into a thin fluid include ice, ice cream, sherbet, frozen ice pops, and jelly desserts.
- For more information refer to the [Thick Fluids](#) Section 5.3.8.

To prevent or treat urinary tract infections, it is recommended to increase overall hydration by drinking adequate fluids.

9.10 Concerns and Solutions

Concerns	Solution
Residents can drink independently	
<p>Unaware of daily fluid needs.</p> <p>Drinks independently but requires prompting due to forgetfulness.</p>	<ul style="list-style-type: none"> • Educate resident on importance of hydration and how much they should consume daily. • Develop a regular plan with or without aids to help prompt fluid intake.
Residents unable to drink independently	
<p>Increased risk of choking or swallowing difficulties.</p> <p>Unable to drink independently.</p>	<ul style="list-style-type: none"> • Dysphagia team input required. • Appropriate assistance and possible aids may be required to support independence and dignity.
Resident refuses fluids with or without assistance	
<p>Long-standing history of low fluid intake.</p> <p>Fear of urinary incontinence or increased frequency of urination</p> <p>Refusal to drink. For example, resident is refusing to open their mouth or is spitting-out fluids.</p>	<ul style="list-style-type: none"> • Gradual approach with education and support that attempts to address the long-standing reasons for this. • Provide reassurance about supports in-place and the readily available access for toileting needs. • Exhibit empathy and understanding of resident's concerns while ensuring to uphold dignity and independence. • Consider the causes for this behaviour such as advancing dementia, or physical, emotional, and environmental changes. • Establish a regular hydration program and monitoring plan.

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