



## NUTRITION CONNECTION

# MEETING HYDRATION NEEDS REQUIRES DAILY FOCUS

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### EXTREMELY HOT, RECORD-BREAKING TEMPERATURES

across the country have made news for much of the summer. It seems that everywhere you look there are warnings about avoiding heat stroke and heat exhaustion, and reminders to stay hydrated. This makes sense to healthcare providers as the dangers of excessive heat and the consequences when an individual becomes overheated or dehydrated can be fatal. Healthcare providers also know that proper hydration must be a focus year-round, and requires daily monitoring.

This article discusses the importance of hydration, along with best practice guidelines for daily implementation of systems and processes that focus on hydration to prevent negative outcomes associated with dehydration.

### HYDRATION: FOOD AND FLUID SOURCES

The general definition of clinical hydration is the taking in of water; used commonly in the sense of reduced hydration or dehydration. The human body is mainly composed of water; it makes up most of lean body mass and body weight.

Water accounts for about 60 percent of a man's body weight and about 50 percent of a woman's weight. Water is not only a source of hydration but also of micronutrients, comprising electrolytes, and trace elements. It is recommended that water be consumed every day to prevent dehydration, a condition that can cause unclear thinking, mood changes, the body to overheat, constipation, and kidney stones.

Dehydration occurs when the body loses more fluid than it takes in. This condition can result from illness; a hot, dry climate; prolonged exposure to sun or high temperatures; not drinking enough water; and overuse of diuretics or other medications that increase urination. Dehydration can upset the delicate fluid-salt balance needed to maintain healthy cells and tissues.

Although there is no recommendation for how much plain water adults and youth should drink daily, there are recommendations for daily total water intake that can be obtained from a variety of beverages and foods.

As daily fluid intake can come from food and beverages, plain drinking water is one effective way of getting fluids as it has zero calories. It is important to note that in the U.S., plain water intake is lower in older adults, lower-income adults, and those with less education. There is also noted concern with global increases in consumption of high-calorie (sugar-sweetened) beverages that has redirected attention on the importance of drinking water for maintaining health and preventing disease.

Water is essential to maintain adequate body functions. As a major component of blood, water dissolves vitamins, minerals, glucose, amino acids, etc.; transports nutrients into cells; removes waste from the cells; and helps maintain circulating blood volume as well as fluid and electrolyte balance.

Since water has no calories, it can also help with managing body weight and reducing calorie intake when substituted for drinks with calories, such as sweet tea or regular soda. Water helps your body in keeping a normal temperature, lubricating and cushioning joints, protecting the spinal cord and other sensitive tissues, and expelling waste through urination, perspiration, and bowel movements.

The Centers for Medicare and Medicaid Services (CMS) State Operations Manual (SOM) Appendix PP—Guidance to Surveyors for Long Term Care Facilities, (Rev. 173, 11-22-17) is the primary resource used by surveyors to determine compliance with regulations. Guidance is provided to surveyors that is used in determining compliance with meeting hydration needs of the residents.



The SOM states that while there is no reliable calculation to determine an individual's fluid needs, an assessment should take into account those characteristics pertinent to the resident, such as age, medical diagnoses, activity level, etc. Guidance is given to surveyors that the nutritional assessment is to include an estimate of calorie, nutrient, and fluid needs, and whether intake is adequate to meet those needs. Information such as the route of intake (oral, enteral, or parenteral), any special food formulation, meal and snack patterns (including the time of supplement or medication consumption in relation to the meals), dislikes, and preferences (including ethnic foods and form of foods such as finger foods), meal/snack patterns, and preferred portion sizes are also to be included.

In addition to water itself, foods containing water can also be sources to meet hydration needs.



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ONLY A SOURCE OF  
HYDRATION**  
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and trace elements.

Foods with 90-100 percent water content include:

- Drinks like sparkling water and fat-free milk.
- Fruits, especially cantaloupe, strawberries, and watermelon.
- Vegetables such as lettuce, cabbage, celery, spinach, and cooked squash.

Foods with 70-89 percent water content include:

- Fruits including bananas, grapes, oranges, pears, and pineapples.
- Vegetables such as carrots, cooked broccoli, and avocados.
- Dairy products like yogurt, cottage cheese, and ricotta cheese.

#### **REGULATORY AND BEST PRACTICE GUIDELINES**

The CMS State Operations Manual (SOM), Appendix PP defines "Nutritional status" as including both nutrition and hydration status.

The continued focus on hydration for healthcare providers can be seen in Federal CASPER data on 7/03/2022. FTag F692 Nutrition/Hydration Status Maintenance under the Regulatory Group 'Quality of Care' was ranked number 20 in the Top 25 of the national Citation Frequency Report. This includes all Medicare and Medicaid funded dually certified skilled nursing facilities (SNFs) and nursing facilities (NFs), distinct part SNFs/NFs and SNFs.

In addition, while most hydration areas of noncompliance are included under the FTag 692, hydration can also be cited under FTag 807—Drinks Available to Meet Needs/Preferences/Hydration under the Regulatory Group 'Food and Nutrition Services.'

F692 in the SOM states the healthcare facility is to "Offer sufficient fluid intake to maintain proper hydration and health."

In guidance to the surveyors for maintaining Fluid and Electrolyte Balance it is noted that "Poor fluid intake, abnormal lab values for electrolytes, some medications, and resident conditions may all affect a resident's fluid/electrolyte balance. Offering a variety of fluids during and between meals, assisting residents with drinking, keeping beverages available and within reach, and evaluating medications for placing a resident at risk for dehydration are examples of interventions that may be used to improve a resident's fluid balance. Alternate fluids, such as popsicles, gelatin, and ice cream, may also be offered. For some residents, a fluid restriction may be required to address conditions, such as edema or congestive heart failure, and may place them at greater risk for dehydration."

It is also noted in the SOM that "Failure to identify residents at risk for compromised nutrition and hydration may be associated with an increased risk of mortality and other negative outcomes, such as impairment of anticipated wound healing, decline in function, fluid and electrolyte imbalance/dehydration, and unplanned weight change. While food intake may be considered, ensuring a resident receives the fluids they require can more easily be overlooked. Individuals who do not receive adequate fluids are more susceptible to urinary tract infections,

pneumonia, pressure injuries, skin infections, confusion, and disorientation."

Use of medications and hydration are also reviewed in the SOM in the Investigating Concerns Related to Medication Regimen Review, Unnecessary Medications, and Psychotropic Medications. Surveyors guide their observations, record review, and interviews with the resident or representative and relevant staff. The surveyor may seek clarification about the basis of specific symptoms, signs, and conditions that may be associated with medications. They are instructed to determine if the resident has been transferred to acute care since the last survey and/

or has recently (e.g., the previous three months) experienced a change in condition or currently has signs and symptoms, such as:

- Anorexia and/or unplanned weight loss, or weight gain
- Dehydration, fluid/electrolyte imbalance

FTag 807 Food and drink included in the regulatory grouping of Food and Nutrition Services states that "Each resident receives, and the facility provides—Drinks, including water and other liquids consistent with resident needs and preferences and

sufficient to maintain resident hydration."

Guidance provided to the surveyor to use in determination of compliance includes the following:

- Proper hydration alone is a critical aspect of nutrition among nursing home residents. Individuals who do not receive adequate fluids are more susceptible to urinary tract infections, pneumonia, decubitus ulcers, skin infections, confusion, and disorientation.
- Other food items may also include items that become a liquid at room temperature, such as popsicles and ice cream.

Specific to Food and Nutrition Services the surveyor will use CMS Probes in making their determination to include:

- Are drinks and other fluids provided when the resident requests and consistent with the resident's care plan, preferences, and choices?

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- Does facility staff provide sufficient drinks that the resident prefers to maintain hydration?
- Are other liquids, such as broth, popsicles, or ice cream, offered to the resident to encourage fluid intake?
- What action does facility staff take to ensure resident hydration is maintained if a resident refuses the fluids offered?

It is important to note that if during the investigation of F807, the surveyor identifies concerns with additional requirements related to outcome, process, and/or structure, they are advised (in the SOM) to investigate other related requirements before determining whether non-compliance has been identified.

Examples of related requirements that may be considered when non-compliance has been identified include, but are not limited to, the following:

- **F552, Right to be Informed/Make Treatment Decisions**—Determine if the facility addressed the resident's right to refuse treatment, including drinks and thickened fluids.
- **F636, Comprehensive Assessments & Timing**—Determine if the resident's hydration status was comprehensively assessed.
- **F656, Develop/Implement Comprehensive Care Plan**—Determine if a comprehensive care plan was developed to address a resident's hydration needs and fluid preferences.
- **F657, Care Plan Timing and Revision**—Determine if the care plan was periodically reviewed and revised by appropriate staff, in conjunction with the practitioner and with input from the resident or his/her legal representative, to address resident hydration needs and preferences.
- **F692, Assisted Nutrition and Hydration (Nutrition/Hydration Status Maintenance)**—Determine if the facility has managed the resident's hydration needs.

- **F725, Sufficient Nursing Staff**—Determine if the concerns related to providing residents with sufficient liquids is related to having sufficient nursing assistant staff to meet these needs.

In addition to the CMS State Operations Manual there are also many resources on hydration available from reliable sites such as:

- Centers for Disease Control and Prevention. Water and Healthier Drinks | Healthy Weight, Nutrition, and Physical Activity | [cdc.gov](https://www.cdc.gov)
- U.S. Department of Agriculture. Water, Hydration, and Health | [nutrition.gov](https://www.nutrition.gov) This site provides information on what foods and beverages can help in staying hydrated, and facts on how much water to drink each day.

## CONCLUSION

Healthcare providers know that hydration must be a focus year-round and requires daily monitoring. This article addressed the importance of hydration, along with best practice guidelines for daily implementation of systems and processes to prevent negative outcomes associated with dehydration.

It is imperative to review and monitor systems and processes in place to maintain compliance with regulations and best practice. Maintaining proper hydration requires a daily focus with the healthcare team collaborating with the resident to provide food and beverages that are enjoyable to the individual. **E**



## REFERENCES

Scan QR code to view the list of resources for this article.



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## CE QUESTIONS | NUTRITION CONNECTION



This **Level II** article assumes that the reader has a thorough knowledge of the topic. The desired outcome is to facilitate application of knowledge into practice by drawing connections among ideas and using information in new situations.

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- Water accounts for about \_\_\_\_\_ percent of a man's body weight and about \_\_\_\_\_ percent of a woman's weight.  
A. 40, 30  
B. 60, 50  
C. 65, 55
- Dehydration occurs when the body loses more \_\_\_\_\_ than it takes in.  
A. Fluid  
B. Oxygen  
C. Carbon dioxide
- Food options with a 90-100 percent water content include:  
A. Frozen granola bars, frozen nuts  
B. Potatoes, beets, corn  
C. Cantaloupe, watermelon, strawberries
- The CMS FTag 692 states that the healthcare facility is to offer \_\_\_\_\_ fluid intake to maintain proper hydration and health.  
A. Assessed  
B. Fortified  
C. Sufficient
- Not receiving proper \_\_\_\_\_ increases susceptibility to urinary tract infections, pneumonia, decubitus ulcers, skin infections, confusion, and delirium.  
A. Finances  
B. Hydration  
C. Visitation
- One probe used by surveyors to make their determination of compliance with hydration includes looking to see that drinks or other fluids are provided based on resident requests and \_\_\_\_\_ with the resident's care plan, preferences, and choices.  
A. Consistent  
B. Familiar  
C. Staff decisions
- Meeting hydration needs requires a \_\_\_\_\_ focus on systems processes and systems from the healthcare team and resident, based on the resident's goals, preferences, and choices.  
A. Weekly  
B. Daily  
C. Quarterly



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