Healing with Hydration

By Ellen Mackay, MSc, RD, CDE

Wounds Are Thirsty

Adequate hydration can help set the stage for proper wound healing and good skin integrity. Often, however, when we need our patients to drink more fluid, they are unable to consume the amount they require. Water can become a forgotten nutrient. Helping clients stay hydrated is a challenge.

Our bodies are estimated to be 60% water.¹ To stay hydrated, a healthy person needs to consume a minimum of 2 litres of fluid from food and beverages throughout the day.² This amount varies by age, sex and medical condition. Adequate hydration helps ensure good blood volume and delivery of oxygen and nutrients to the wound bed, and removal of waste products.³

Complications from Dehydration

Dehydration can have serious complications,

including poor wound healing and increased risk of skin breakdown. It can also negatively affect mood, cognitive functioning and balance.

Many of the patients in our care may be at risk for dehydration. What puts our clients at risk? It may be increased needs from excessive fluid loss, a low overall fluid intake or a combination of both.

Increased Needs

Wounds may increase the body's need for fluid, and heavily draining, large or multiple wounds can increase fluid requirements significantly. As well, fever, diaphoresis, vomiting and diarrhea increase fluid losses, as do some medications, such as diuretics or laxatives. High blood glucose increases urinary output, eventually leading to dehydration. And hot, humid weather may increase fluid needs, especially in the elderly.



Low Fluid Intake

Many patients do not or cannot drink enough, for one or more of the following reasons. Patients may:

- Have an impaired thirst mechanism, especially with age
- Wish to restrict their fluid intake to minimize trips to the washroom
- Experience pain, which can be a potent appetite and thirst suppressor
- Rely on help to open beverage containers or bring fluids to the bedside
- Be unable to communicate their needs
- Experience difficulty swallowing (dysphagia), including coughing or choking, even with thin liquids

How much is enough?

Fluid needs vary from person to person, though specific ways to determine fluid requirements have been proposed. Provision of 30 to 35 mL per kg of body weight may be sufficient.⁴ Other advisory groups suggest fluid needs be based on calorie intake, with 1 mL per kcal consumed.⁵ Patients with wounds requiring high protein intake will need more fluid. Monitor such patients

for signs of dehydration (see sidebar below) and adjust as required. Fluids may need to be tapered down for patients with congestive heart failure or chronic kidney disease. For individualized assessment, consult a Registered Dietitian or the nutrition care team.

Helping Hydration

Offering a variety of fluids frequently through the day will help improve a patient's hydration status. Water is best, but also include a variety of hot or cold beverages such as 100% fruit or vegetable juice, milk or fortified milk alternatives, shakes, tea or coffee. See the sidebar on the next page for hydration tips.

Signs of Dehydration³

- Decreased skin turgor
- Weight loss
- Fatigue, confusion
- Dry mucous membranes
- Blood values (elevated serum sodium or calculated serum osmolality)
- Concentrated urine output

Patients with impaired gag reflex may find swallowing anxiety-provoking. If dysphagia is present, ensure an appropriate thickening agent is used with thin fluids. Consider a swallowing assessment as part of your nutrition care plan.

Food can provide up to 30% of fluid needs, especially fruits and vegetables. Soups, puddings and flavoured jelly have a high fluid content and may be easier than solid foods for some patients to eat. Any food that is liquid at room temperature, such as frozen juice bars or ice cream, is considered a fluid in this context.

Every Sip Counts

A wound patient's need for good hydration is ongoing and is the responsibility of an integrated team. Gentle, frequent reminders to increase fluid intake will support wound healing. Help patients or their caregivers to learn the importance of fluids for the health of their skin and for their overall health.



1. Posthauer ME, Dorner B, Collins N. Nutrition: A critical component of wound healing. Adv Skin Wound Care. 2010; 23(12):560-572.

2. Institute of Medicine of the National Academies. Dietary Reference Intakes for Water, Potassium, Sodium, Chloride and Sulfate. Panel on

Dietary Reference Intakes for Electrolytes and Water; Standing Committee on the Scientific Evaluation of Dietary Reference Intakes; Food and Nutrition Board. Washington, DC: The National Academies Press; 2005.

- 3. Prevention and Treatment of Pressure Ulcers: Quick Reference Guide. Haesler E, ed. National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel and Pan-Pacific Pressure Injury Alliance. Perth, Australia: Cambridge Media; 2014.
- 4. Posthauer ME, Banks M, Dorner B, Schols JM. The role of nutrition for pressure ulcer management. National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel, and Pan Pacific Pressure Injury Alliance White Paper. Adv Skin Wound Care. 2015;28(4):175-188.
- 5. Houghton PE, Campbell KE, CPG Panel. Canadian Best Practice Guidelines for the Prevention and Management of Pressure Ulcers in People with Spinal Cord Injury: A Resource Handbook for Clinicians. Toronto, Canada: Ontario Neurotrauma Foundation; 2013. Available from: http://onf. org/system/attachments/168/original/Pressure Ulcers Best_Practice_Guideline_Final_web4.pdf.

Hydration Tips

- ✓ Set up a hydration station on your unit or in your clinic. (Provide water, milk or fortified soy beverage, 100% fruit or vegetable juice, coffee or tea.)
- ✓ Keep a drink of water within arm's reach. Equip wheelchairs with drink-holders.
- ✓ Offer fluids with and between meals.
- ✓ Provide fluids with each patient contact (vitals, turns, check-ins).
- ✓ Offer extra water when providing medications.





WUWHS 2020

GLOBAL HEALING CHANGING LIVES

ABU DHABI UAE

MARCH 8-12



Congress Organizer



Congress Organizer:

CENTRO CONGRESSI INTERNAZIONALE s.r.l.

Abu Dhabi (UAE) Branch info@ccicongress.ae

leadquarter: Turin (Italy) info@ccicongress.com