

# Nutrition

## Drink For Your Health

by Joanne Smith, CNP, & Kylie James, CNP

It's no surprise that everyone needs to stay well-hydrated when engaging in physical activities, sports or even just when spending time under the hot sun.

Maintaining proper hydration levels is extremely important, not just for maximizing performance and recovery but for sustaining your physical health and safety.

This is particularly important for someone who has a spinal-cord injury or disease (SCI/D) because of difficulties with compromised sweating function and poor temperature regulation.

If you're not consuming adequate amounts of water, multiple problems can occur, including:

- Mental and physical fatigue
- Slower metabolism
- Joint pain
- Constipation, heartburn and gastrointestinal distress
- Poor memory
- Fluid and electrolyte imbalances, leading to swelling and edema
- Blood volume drops, causing less nutrients to be delivered to the muscles and delayed removal of byproducts
- Lower sweat rates
- Quickly rising body temperature



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- Decrease in maximum aerobic performance
- Heat cramps
- Hyperthermia
- Premature fatigue

You can tell if you haven't had enough to drink if your urine is dark yellow or even orange. If you feel thirsty, you're already 2% dehydrated, and this will have a negative impact on your physical and mental performance.

### WHAT YOU DRINK COUNTS

Drinking before, during (if possible) and after a game, workout or race is important. However, it's not just when you drink, it's also what you drink. A lot of the sports drinks on the market are filled with sugars, artificial colorings/ flavorings and additives.

There's no replacing good, clean water, but if you've been working out, you not only need to replace the water you've lost but also your electrolytes (essential minerals such as sodium and potassium that are depleted from sweating).

Electrolytes regulate our nerve and muscle function, our body's hydration, blood pH, blood pressure and help rebuild damaged tissue. Consuming water with electrolytes and glucose is also advantageous for ath-



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letes, as it avoids depletion of muscle glycogen (the energy, glucose, stored in your muscles, providing direct fuel to them).

Drinking water with glucose and electrolytes also helps maintain mental function, which is critical to performance because mental fatigue leads to muscle fatigue, even if your muscles have plenty of glycogen.

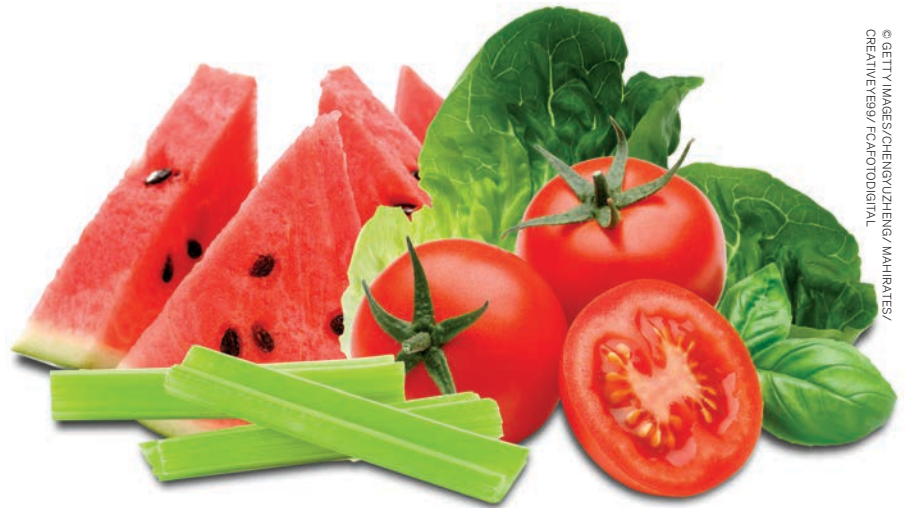
Here are a pair of easy and great homemade drinks you can make to help you get natural sugars, electrolytes, water and salt:

- 1 liter of water with 1 cup of orange juice and ½ teaspoon of salt
- 1 liter of water with 1 tablespoon of maple syrup and ½ teaspoon of salt

#### WATER ALTERNATIVES

Coconut water is another delicious and natural source of sugars and electrolytes that your body needs after a hard workout. Just be sure to read the ingredient lists, as many brands have unnecessary sugars and artificial flavors added to them.

A study published in the Feb. 12, 2019, issue of the *International Journal of Sport*



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*Nutrition and Exercise Metabolism* shows that plain old chocolate milk may be as good — or better — than popular sports drinks on the market at helping athletes recover from strenuous exercise.

Intense endurance exercise reduces the muscles' supply of stored glucose, or glycogen, a key source of fuel for exercise.

To maximize glycogen replacement, the American College of Sports Medicine and the American Dietetic Association recommend taking in a serving of carbohydrates within 30 minutes after a long and vigorous workout.

The findings suggest that chocolate milk has an optimal ratio of carbohydrates to protein to help refuel tired muscles and provide the glucose replacement that the body needs.

Hydrating foods also count towards your water intake.

Some of the top water-rich foods include:

- Cucumbers
- Lettuce
- Strawberries
- Celery
- Tomatoes
- Green peppers

- Watermelon
- Homemade soups (hot or cold)

#### MAKE A HYDRATION PLAN

To ensure proper hydration levels, it may be helpful to maintain a fixed drinking schedule before, during and after exercises or activities.

The best way to do this is to carry the fluid with you, so it's readily available. This can be in the form of a water bottle or water pack that you can attach to a wheelchair and one that has a long, plastic, straw-like hose that you can just bring to your mouth to sip your fluids.

As for how much to drink before the game, race or physical activity, here's a helpful guideline — drink a half liter one to one-and-a-half hours before a game or race, and avoid foods and drinks that are natural diuretics, such as tea, coffee and soda.

Keep hydrated, and enjoy your summer.

*Joanne Smith, CNP, and Kylie James, CNP, are co-authors of the Paralyzed Veterans of America-supported book Eat Well, Live Well with Spinal Cord Injury and Other Neurological Conditions. For more information, visit [eatwelllivewellwithsci.com](http://eatwelllivewellwithsci.com).*

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