

# HOW TO MAXIMIZE PERFORMANCE HYDRATION



I am a freshman student-athlete on the football team. I am used to training hard, but now that I am in college I train twice a day on some days. I always make sure to drink some sports drink during practice and strength training, but I find that I am really tired and have headaches during and after practice, which is affecting my performance. I have also noticed that I am cramping more often.

I thought that what I already drink during practice would be enough, but should I be drinking more?

*(For the consequences of dehydration and tips to avoid it, turn the page.)*

Information presented by



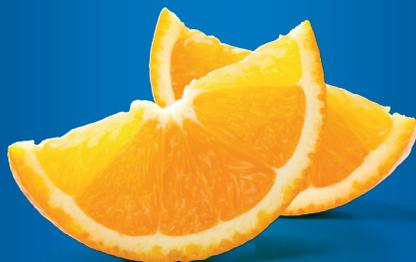
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## TIPS TO TAKE WITH YOU

- Monitor your urine color. Clear to pale yellow (lemonade color) is indicative of optimal hydration status.
- Fruits and vegetables are made mostly of water and are a great way to add fluids to help meet your hydration needs. Plus, they have lots of vitamins and minerals!
- Weigh in before practice and after to determine your amount of water loss.



- If you are a salty sweater, eat salty foods before activity and don't be afraid to use the salt shaker. Replace losses post-workout with watery foods that contain salt, such as broth-based soups or vegetable juice.
- Other sources of water include smoothies, juice, sports drinks and tea. However, be wary of the extra calories these liquids may contain.
- Carry a water bottle with you so you can drink water throughout the day.



Written by SCAN Registered Dietitians (RDs). For more information on performance hydration or a customized nutrition plan, consult a RD who specializes in sports, particularly a Board-Certified Specialist in Sports Dietetics (CSSD). Find a SCAN RD at [www.scandpg.org](http://www.scandpg.org).

## GOALS OF PERFORMANCE HYDRATION

- Begin workouts in a well-hydrated state
- Maintain hydration throughout practice
- Maximize performance
- Improve ability to recover quickly from training and competition
- Minimize injury and muscle cramps

## CONSEQUENCES OF DEHYDRATION

- Performance declines with as little as 2 to 3 percent decrease in body weight from water (sweat) loss
- Increased core temperature and heart rate
- Decreased blood pressure
- Nausea and vomiting
- General feeling of fatigue
- Headaches
- Muscle cramps



## HYDRATION TIMING

The chart below shows fluid intake recommendations before, during and after practice.\*

When	How much
Before exertion	2 to 3 hours before: 16 ounces (about 1 water bottle) 15 minutes before: 8 ounces
During exertion	4 ounces of fluid every 15 to 20 minutes (2 to 3 large gulps)
After exertion	16 to 20 ounces of fluid for every pound lost (1 to 1½ water bottles per pound lost)

\* You should still drink water and other fluids throughout the day to stay hydrated.

## WHAT ABOUT SPORTS DRINKS?

Sports drinks are designed to rehydrate, provide energy and replenish the body's electrolytes, especially sodium, which is lost through sweating. Sports drinks also contain carbohydrates – the body's main source of energy. During prolonged, intense exercise, it is important to replace the fluid and minerals lost in sweat. The appropriate amount for rehydration will depend on factors such as the level and duration of exertion. Reduce the risk of fluid-electrolyte imbalances such as hyponatremia (dangerously low blood sodium level), which can occur after long and intense exercise when a high level of sweating has also occurred and large volumes of plain water are consumed. Athletes that will benefit most from a sports drink are those intensely exercising for longer than 60 minutes and salty sweaters. Sports drinks are designed to help replenish sodium lost from sweat. If exercising longer than 60 minutes, consuming a few gulps of a sports drink every 15 to 20 minutes can help to maintain energy and electrolyte levels, and sustain performance. (For more information, refer to the Fueling During Exercise fact sheet.)