HOW TO OPTIMIZE

HYDRATION FOR PERFORMANCE



I am a first-year student-athlete on the football team. Hard training is familiar to me, but in college I sometimes train twice daily. I always have some sports drink during practice and strength sessions, yet I feel very tired and get headaches during and after practice. This is hurting my performance. I have also been experiencing muscle cramps more frequently than before.

I assumed the fluids I drink during practice were enough. Do I need to drink more than I do now?

(Turn the page for dehydration's effects and ways to prevent it.)

Information provided by

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TIPS TO KEEP IN MIND

- Watch your urine color. Clear or pale yellow urine (the color of lemonade) signals optimal hydration.
- Fruits and vegetables contain plenty of water and can boost your fluid intake to support hydration. They also provide many vitamins and minerals.
- Weigh yourself before and after practice to check how much water you lost.



- If your sweat is salty, eat salty foods before exercise and feel free to add salt. After workouts, replace losses with foods that supply water and salt, such as broth-based soups or vegetable juice.
- Smoothies, juice, sports drinks and tea also provide water. Keep in mind that these drinks may supply additional calories.
- Keep a water bottle handy so you can sip water all through the day.



Prepared by SCAN Registered Dietitians (RDs). For hydration advice or a personal nutrition plan, consult a sports RD, preferably a Board-Certified Specialist in Sports Dietetics (CSSD). To find a SCAN RD, go to www.scandpg.org.

HYDRATION GOALS FOR PERFORMANCE

- Start workouts already well hydrated
- Stay hydrated for the whole practice
- Perform at your best
- Recover faster from training and competition
- Limit injuries and muscle cramps

EFFECTS OF DEHYDRATION

- Performance can fall after losing only 2 to 3 percent of body weight through water loss from sweat.
- Higher core temperature and heart rate
- Lower blood pressure
- Nausea and vomiting
- Overall fatigue
- Headaches
- Muscle cramping



WHEN TO HYDRATE

The table outlines suggested fluid intake before, during and after practice.*

Timing	Fluid amount
Before activity	2 to 3 hours ahead: 16 ounces (about 1 water bottle) 15 minutes ahead: 8 ounces
During activity	Every 15 to 20 minutes: 4 ounces (2 to 3 large gulps)
After activity	For each pound lost: 16 to 20 ounces of fluid (1 to 1½ water bottles for each pound lost)

* Continue drinking water and other fluids throughout the day to remain hydrated.

HOW CAN SPORTS DRINKS HELP?

Sports drinks help restore fluids, supply energy and replace electrolytes, especially the sodium lost in sweat. They also provide carbohydrates, the body's primary energy source. During long, vigorous exercise, replacing the fluid and minerals lost through sweat is important. How much you need to rehydrate depends on factors including exercise intensity and duration. Help prevent fluid-electrolyte imbalances such as hyponatremia (dangerously low blood sodium), which can develop after long, intense exercise with heavy sweating and drinking large amounts of plain water. Sports drinks are most useful for athletes who exercise intensely for more than 60 minutes and for those whose sweat is salty. They are formulated to replace sodium lost in sweat. When exercise lasts over 60 minutes, a few gulps every 15 to 20 minutes can help maintain energy, electrolytes and performance. (For further guidance, see the Fueling During Exercise fact sheet.)