

## Hydration Fact Sheet

"It is the position of the American College of Sports Medicine that adequate fluid replacement helps maintain hydration and therefore, promotes the health, safety, and optimal performance of individuals participating in regular physical activity."

American College of Sports Medicine. (1996). Exercise and fluid replacement. *Medicine and Science in Sport and Exercise*, 28 (1), i-vii.

### Keys to hydration:

- Consume a nutritionally balanced diet with adequate fluids within the 24 hours preceding exercise (meets and especially practices).
- Drink before practice.
  - About 500 ml (17 oz) of fluid about 2 hours before practice or a meet promotes adequate hydration and allows time for excretion of excess ingested water.
- Drink during practice.
  - Fluids that are cooler than the ambient (surrounding) temperature are best.
  - If practice is less than 1 hour – water is fine.
  - If practice lasts longer than 1 hour, a carbohydrate/electrolyte replacement solution is more important.
  - The concentration of the carbohydrate/electrolyte solution should be 4-8%.
  - To get a 4-8% solution, cut your Gatorade or Powerade with water – about half and half will do just fine.
  - Fluid replacement should attempt to equal fluid loss.
  - During exercise, athletes typically drink insufficient volumes of fluid to offset their losses – this observation has been referred to as "voluntary dehydration."
  - Voluntary drinking only replaces about 2/3 of the body water lost as sweat.
  - Enhancing palatability (taste) of an ingested fluid is one way of improving the match between fluid intake and sweat output.
  - The perception of thirst (an imperfect index of the magnitude of fluid deficit) cannot be used to provide complete restoration of water lost by sweating.
- Drink after practice.

### Hydration myths:

- You can drink too much water.
  - FACT: Despite what you see on the evening news, hyponatremia occurs in less than 1% of endurance athletes (marathon runners, triathletes, etc.). Yes, there has been growing concern over the appearance on this phenomenon in endurance events and without a doubt; this should be a concern – to those athletes, not you! The odds of a swimmer or any other athlete whose race last for less than 3-4 hours are astronomical. Plus, beside a marathon or triathlon, how many other competitive events call for an athlete to expend effort for 3-4 (or more) straight hours with no rest. That's right – there are none.
- I should only drink when I'm thirsty.
  - FACT: if you become thirsty, it's too late...you're already dehydrated.
- I should add salt (sodium) to my water or sports drink.
  - FACT: Unless you are an endurance/elite athlete, you get plenty of sodium from your diet and have no need to add sodium to anything you ingest. In fact, according to the ACSM, "there is little physiological basis for the presence of sodium in an oral rehydration solution for enhancing intestinal water absorption as long as sodium is sufficiently available from the previous meal."
- Gatorade is better than water.
  - FACT: It depends on a number of factors. How long and at what intensity are you exercising? What is the concentration of carbs and electrolytes? What have you eaten during the preceding 24 hours?