

Mercy Sports Medicine Hydration Recommendations

(Source: National Athletic Trainers' Association Position Statement: Fluid Replacement for Athletes)

Introduction

Hydration is an important factor in athletic performance. Many factors can influence the hydration level of an athlete including environment (hot, cold, sunny, cloudy), sweat rate, and body weight. Just a 2% drop in weight can decrease performance and increase risk for heat illness. Included in the document are recommendations to follow to maintain proper hydration during athletic activity.

Beverages

- Cool beverages of 10-16 degrees C (50-59 degrees F) is recommended
- Water along with sports drinks are acceptable
- Drinks such as Tang, cool aid, lemonade, fruit juices, milk, energy drinks, soda, coffee, tea, high fat containing drinks are not recommended

Pre-exercise hydration

- 500 – 600mL (17-20 fl oz) of water or sports drink 2 to 3 hours before exercise
- 200 – 300mL (7-10 fl oz) of water or sports drink 10 to 20 minutes before exercise

Fluid replacement during exercise

- Fluid replacement should be at a rate that maintains hydration at 2% *or less* body weight reduction
- Generally requires 200 – 300mL (7-10 fl oz) every 10 to 20 minutes
- This is not specific to individuals, it is a general guideline
- Athletes should be allowed water breaks every 10 to 20 minutes depending on environmental conditions, and allowed to access fluids as needed.

Post-exercise hydration

- Goal is to correct any fluid loss accumulated during the practice or event
- 16 – 20oz of fluid for every pound lost during physical activity.
- Ideally completed within 2 hours
- Should include water to restore hydration status, carbohydrates to replenish glycogen stores, and electrolytes to speed rehydration
- Ideally, fluid during exercise should contain carbohydrates if exercise lasts 45-50 minutes or longer.
- Carbohydrate content should be 6% - 8%, no more; also electrolytes like sodium and potassium
- Sport drinks should be alternated with water

Helpful tips

- Athletes need to drink *beyond thirst!* Thirst is not a good indicator of hydration level.
- A clear urine color can indicate (approximately) a good level of hydration
- Ideally, athletes should weigh in before and after practice to calculate weight difference to reveal hydration loss and sweat rate
- Sweat rate calculation: $\text{sweat rate} = \frac{\text{pre-exercise body weight} - \text{urine volume}}{\text{exercise time in hours}}$

Basic signs and symptoms of dehydration

- Thirst, irritability, general discomfort, headache, weakness, dizziness, cramps, chills, vomiting, nausea, head or neck heat sensations, decrease performance