



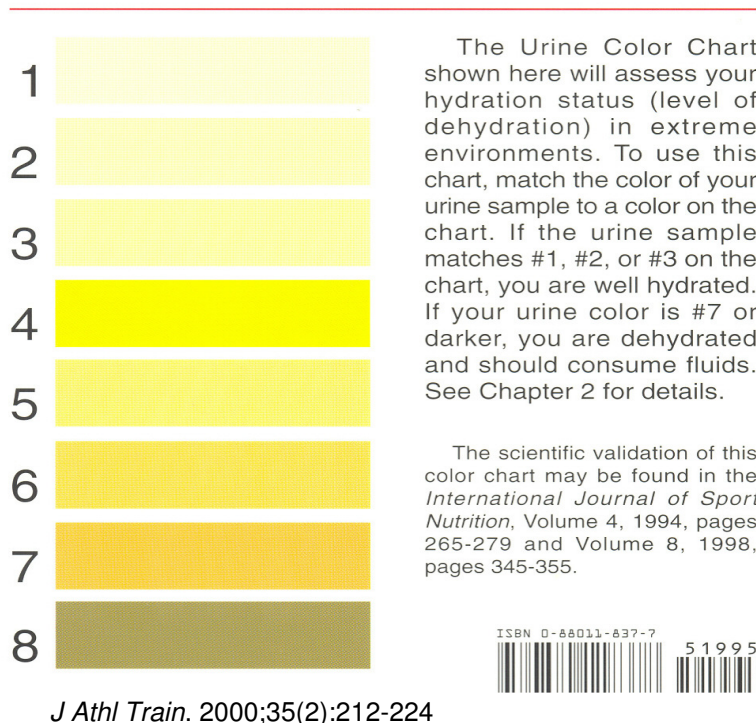
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## Fluid Replacement for Athletes

The National Athletic Trainers' Association (NATA) recommendations:

1. Establish a hydration protocol for your athlete based on the sport(s) played and one that considers the athlete's sweat rate, rest breaks, fluid access, environment (indoor/outdoor sports), exercise duration and intensity.
2. For soccer, rehydration must occur at specific times, so the athlete must consume fluids to maximize hydration within the sport's rules.
3. Carrying a water bottle that is marked in measuring increments provide visual reminders to drink before you feel thirsty. Fluid replacement beverages should be easily accessible.
4. Athletes should begin all exercise sessions well hydrated. Urine color can help with hydration status (see the Urine Color Chart for reference). The athlete should consume approximately 20 fl oz of water or a sports drink 2 to 3 hours before exercise and 10 fl oz 10 to 20 minutes before exercise.
5. During exercise, athletes usually require 10 fl oz of fluid every 10 to 20 minutes. Drinking too much is also a risk if athletes drink only by recommendations for every activity and not by individual needs.
6. After exercise rehydration within the first 2 hours are very important. Fluid should contain water to restore hydration status, carbohydrates to replenish glycogen stores, and electrolytes to speed rehydration. To assure optimal hydration, drink about 25% to 50% more than sweat losses 4 to 6 hours after the event.
7. Types of fluid appropriate for hydration include carbohydrate drinks before and after exercise. For activities that are intense and lasting up to 45 minutes or longer, 2 to 3 hours prior to exercise is appropriate. Also, drinking a carbohydrate drink 30 minutes prior to exercise and within 2 hours after exercise is appropriate. Those not appropriate during exercise as the sole beverage include fruit juices, carbohydrate gels, sodas, and sports drinks with more than 8% carbohydrate concentrations. Other fluids to avoid for rehydration include caffeine, alcohol, and carbonated beverages.
8. Basic signs and symptoms of dehydration should be easily recognized: thirst, irritability, and general discomfort, followed by headache, weakness, dizziness, cramps, chills, vomiting, nausea, head or neck heat sensations, and decreased performance. Early recognition of dehydration decreases the occurrence and severity of heat illness. Monitor and remove a child from activity immediately if signs and symptoms of dehydration occur.

9. Consider modifications when working with prepubescent and adolescent athletes who play in the heat, especially with multiple events in the same day or weekend.
  
10. Use hydration education with athletes. The most critical components include:
  - a. Educate athletes on the effects of dehydration on physical performance.
  - b. Inform athletes on how to monitor hydration status.
  - c. Convince athletes to participate in their own hydration protocols based on sweat rate, drinking preferences, and personal responses to different fluid quantities.
  - d. Encourage coaches to mandate rehydration during practices and competitions, just as they require other drills and conditioning activities.



For more detailed information, see the full version of the NATA Position Statement on Fluid Replacement for Athletes at <http://www.nata.org/sites/default/files/FluidReplacementsForAthletes.pdf>