

Hydration

Staying Healthy During Practice and Competition

What is Dehydration?

- ✓ Losing 2% of your bodyweight through sweating
 - A 150-pound person losing 3 pounds of water from sweat = dehydration
- ✓ Dehydration also increases body temperature and heart strain.^[1]

How Much Water Should I Drink Per Day?

- ✓ There is NO EVIDENCE to support “8 glasses of water per day”.^[2] Instead,

Your bodyweight (in ounces) / 2 = Optimal Water Intake

- ✓ ALSO, drink 25% of your total intake first thing in the morning.

How can I stay hydrated?^[3]

- ✓ Before: 5–7 milliliters per kg of bodyweight 4 hours before exercise/competition.
 - If you weigh 150 pounds (68 kg), drink up to 476 milliliters (16 oz.)
- ✓ During: Drink 30–60 grams of carbohydrate per hour.
- ✓ After: Drink 1.5 Liters (6 cups) of water for each kg (2.2 lbs) of body weight lost.



One of the most important ways to help maintain your athletic performance.

More is not better

- ✓ Drinking more water than is recommended will not improve performance and “provides no clear physiologic or performance advantage”.^[4]

How much of the different sports beverages should I drink?

- ✓ Using the 30-60 grams carbohydrate per hour recommendation, here is how much to drink of the 4 most common sports drinks:
 - Vitamin Water: 1 small bottle (16-oz) per hour
 - Smart Water: There are no carbohydrates in Smartwater, but it does contain electrolytes (sodium and potassium) and is best when exercising < 1 hour.
 - Coconut Water: “Mother Nature’s Gatorade” = 1 container (8-oz) per hour
 - Gatorade: 1 small bottle (16-oz) per hour

Reference:

1. Nybo, L. and B. Nielsen, *Hyperthermia and central fatigue during prolonged exercise in humans*. J Appl Physiol, 2001. **91**(3): p. 1055-60.
2. Valtin, H., “*Drink at least eight glasses of water a day.*” Really? Is there scientific evidence for “8 x 8”? Am J Physiol Regul Integr Comp Physiol, 2002. **283**(5): p. R993-1004.
3. Sawka, M.N., et al., *American College of Sports Medicine position stand. Exercise and fluid replacement*. Med Sci Sports Exerc, 2007. **39**(2): p. 377-90.
4. Kavouras, S.A., et al., *Rehydration with glycerol: endocrine, cardiovascular, and thermoregulatory responses during exercise in the heat*. J Appl Physiol, 2006. **100**(2): p. 442-50.