

## 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.<sup>[1]</sup>

#### How Much Water Should I Drink Per Day?

- ✓ There is NO EVIDENCE to support “8 glasses of water per day”.<sup>[2]</sup> 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?<sup>[3]</sup>

- ✓ 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”.<sup>[4]</sup>

#### 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.