



Hydration



Athletes must remain hydrated in order to train and compete at top levels. A loss of body weight (as little as 2-3%) from water can result in decreased performance. Fluid needs are influenced by gender, age, body mass, outside temperature, sweat rate, climate, altitude, and sport type and are therefore highly individual. Understanding why hydration is important for performance and how much YOU need to consume can help prevent unnecessary complications.

How can hydration status impact performance?

Water helps the body regulate many important functions:

- ✓ Temperature (*sweating cools the body*)
- ✓ Blood pressure
- ✓ Nutrient concentration (*fluid helps maintain appropriate levels of electrolytes in the body*)
- ✓ Nutrient transportation
- ✓ Recover from intense training

Allowing the body to become dehydrated can cause muscles to cramp, alter blood pressure, cause weight loss during exercise, delay recovery time, and decrease performance. Drinking too much water can alter electrolytes and cause bodily harm (hyponatremia).

How much should I drink?

Fluid needs are highly individual, but all athletes should get into the following habits:

- ✓ Drink a glass of water, milk, or 100% juice with each meal
- ✓ Carry a water bottle around while at school or work
- ✓ Pay attention to thirst and drink when thirsty
- ✓ Determine your personal sweat rate: *Sweat rates can vary considerably among athletes. It pays to know how much YOU sweat in different environments. See box below on how to calculate.*
- ✓ Drink more when adapting to a new environment (*i.e., high altitude, hot, humid*)
- ✓ Remember that you can get dehydrated in the cold too. The body loses water as you breath.

- ✓ Start hydrating at least 4 hrs prior to training or competition
- ✓ Aim to replenish 150% of lost fluid after training
- ✓ Monitor your urine color (pale yellow is ideal) & frequency

When to use Sport Drinks:

Sport drinks were designed for use before, during, and after intense or long training sessions and serve important functions for athletes.

1. Hydration
2. Provide fuel for muscles (carbohydrate)
3. Provide electrolytes
4. Some sport drinks offer protein. This is not essential during exercise, but is important for recovery.

Consider a sport drink if...

- ✓ Training intensely > 45 minutes in heat
- ✓ Two-a-day practices
- ✓ Tournament or multi-day event
- ✓ Endurance training >90 minutes
- ✓ Training/Competition when last meal was > 3 hrs prior

Sport drinks should not be your “go-to” drink during the day. Instead opt for plain water or a more nutrient dense milk or 100% juice option unless you are in a before, during, or after training window.

Measuring Sweat Rate...

- Step #1: Weigh yourself (minimal clothing, no shoes) before training/competition
- Step #2: Keep track of all fluid consumed during training
- Step #3: Weigh yourself after training (same clothing)
- Step #4: Find the difference and convert to ounces (1 lb. = 16 oz or 2 cups of fluid)
- Step #5: Add the ounces you consumed during training
- Step #6: Determine hourly sweat rate: divide total ounces lost by hrs of training.

Example

Tim practices for 2 hours and drinks 20oz (2.5cups)

Weight #1:	175 lb.
Training Fluid:	20 oz
Weight #2:	172 lb.
Difference:	- 3 lb.
Difference (oz):	48 oz
Add training fluids:	48 + 20 = 68 oz (8.5 cups)
Sweat Rate:	68 oz/2 hrs = 34 oz/hr or ~4 cups per hour