

## Hydration and Nutrition for Exercise

**Water:** Being the most essential ingredient for life, water is a must while exercising. A loss of as little as 1% can cause a significant drop in blood volume, making the heart work harder, contributing to dizziness and fatigue, and sometimes heat exhaustion. It is important to take in fluids while exercising, and finding the right amount to drink depends on several factors, including

- *High altitude:* exercising at altitudes increases your fluid losses
- *Temperature:* in the heat you will sweat more, and in the cold you will lose more fluids through respiration.
- *Sweating:* some people sweat more than others and it is helpful to judge how much water you lose while sweating. Weighing yourself before and after exercise is an easy way to monitor this. Weight loss is from fluid loss, and weight gain is likely due to taking in too much fluids while exercising
- *Exercise duration and intensity:* The amount of time and how hard you're exercising obviously affects your fluid losses.
  - o If you exercise 30 minutes or less – water is usually sufficient to meet your fluid and energy needs. Many people underestimate how quickly water moves through their body. Studies have shown that in as little as 10 minutes, the water ingested ended up as sweat!
  - o More than 30 minutes but less than an hour – Try water or a sports drink, like Gatorade. You need the water but also carbohydrates to give you energy to keep going.
  - o Over an hour – You are often losing electrolytes as well, and need carbohydrates and electrolytes to keep going. Endurance sports drinks are helpful in this situation.

**Nutrition:** Eating before and after exercise is very important. It can make the difference between feeling energetic or feeling sluggish while exercising, and can speed your body's recovery afterward.

- *Exercising early in the morning:* You've just gone all night without eating, so you need to give your body some fuel to burn, but also need to be careful not to over do it. Try to eat 15-30 minutes before exercising to avoid nausea or a side-ache. 200-300 calories is usually enough, and stick to simple sugars. Best bets: toast, bagel, banana, granola, raisins, juice or sports beverage.
- *Exercising after work:* You've worked all day and likely you're hungry. You would like to get that workout in before eating dinner, so try to eat a mid-afternoon snack to get you through until dinner, while also giving your body fuel for exercise. Try to take in about 400-500 calories of carbs and a little protein, about 2-3 hours before you plan on exercising. Best bets: cheese and crackers, veggies and dip, fruit and something whole-grain, yogurt and pretzels.
- *After exercising:* First of all, you've earned it! But also you need to take in a good balance of carbohydrates and protein to replace what you've used and to help repair your body. Studies show the best ratio of taking this in is in a 4:1 Carb:Protein ratio, and it is interesting that a large glass of milk often fits this ratio perfectly!