



**SANFORD SPORTS SCIENCE INSTITUTE**

# NUTRITION STRATEGIES: FUELING YOUR BODY FOR RACE DAY

The most important thing to remember for race day fueling is to PRACTICE your fueling strategy during training because you don't want to try anything new on race day. If you're training your muscles to run the race, you need to train your stomach to handle food before a run. Always eat familiar foods in the days leading up to the race, and whatever foods you've been eating before training runs are the same foods you're going to want to eat on race mornings.

**Carbohydrates are your muscles main source of fuel** during moderate to hard exercise. When you eat carbohydrates, your muscles store the carbohydrates as **glycogen**, which is utilized as fuel for your muscles during exercise. As an athlete, experiment with the following nutritional strategies to top off muscle glycogen stores and to maintain blood sugar during a race to optimize your running performance.

**START THINKING ABOUT YOUR FUELING STRATEGY BEFORE RACE DAY.**

<p><b>Races under 90 minutes</b></p> <p>(5K, 10K)</p>	<p>"Carbohydrate Loading" isn't necessary</p> <p>To avoid either a mid-race crash or that heavy, bloated feeling, runners should not under fuel or over-eat before their race.</p> <p>Ways to eliminate this are:</p> <ul style="list-style-type: none"> <li>• Do not skip meals in the days leading up to the race.</li> <li>• Do not try to eat extrain an attempt to load up before the race (huge pasta dinner).</li> <li>• Eat familiar foods you know will sit well with you during the race. (avoid high-fat, high-fiber foods before race day)</li> </ul>
<p><b>Longer distances</b></p> <p>(Half marathon, Marathon, and Ultra distances)</p>	<p>Decrease the amount of miles you're logging (taper) for several weeks before the race and increase the amount of carbohydrates you eat 2-3 days before your race to top of your glycogen (energy) stores.</p> <ul style="list-style-type: none"> <li>• Three days before your race (mid-week): increase your carbohydrate intake to ~3-5 grams per pound of body weight per day.</li> <li>• Carbohydrates should make up the majority of your plate (60-70% carbs), which can be achieved by increasing the amount of carbohydrates that are eaten at each meal and snack.</li> <li>• Don't forget protein: your diet should still include 0.5-0.8 grams of protein per pound of body weight.</li> <li>• Many people prefer to eat a bigger meal for lunch the day before an endurance race, leaving your body plenty of time to digest vs. the typical pasta dinner the night before the race. Again, practice this fueling strategy before long training runs. Avoid unfamiliar, high-fat, high-fiber foods before race day.</li> </ul>

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(605) 312-7870

sanfordhealth.org/sportsscience

## WHAT TO EAT ON RACE MORNING

Before a race, especially a race lasting more than 90 minutes, runners want to eat a meal or snack that is high in carbohydrates, and low in fat and fiber to help top off carbohydrate stores right before the race. This will help runners sustain their endurance for the whole race.

These snacks should be substantial enough to get you to the starting line without feeling hungry, but not so large that you feel bloated and/or heavy.

Some people eat a large breakfast 3-4 hours before the start of their race and pack a smaller snack to eat during the hour before their race.

<b>2-4 hours before your race</b>	<p>You have plenty of time to eat a normal breakfast meal with <b>1-2 grams of carbohydrate per pound of body weight</b>. (a smaller meal is recommended as you get closer to race time).</p> <p>150 lb. runner x 1 g carbs/lb = 150 g carbohydrates</p> <p>1 cup cooked oatmeal cooked with 1 cup of milk and 1 Tbsp honey          1 sliced banana          1/3 cup raisins          8 oz. sports drink</p>
<b>30-90 minutes before your race</b> As you get closer to the start time of your race, especially for short races, your meal/snack should come primarily from carbohydrates.	<p>Stick with easily digestible carbohydrates you know your stomach can handle, such as a sports gel or drink, a banana, or a granola bar.</p> <p>Aim to eat <b>0.5 - 1 gram of carbohydrate per pound of body weight</b>.</p>

## DURING THE RACE

You'll hear a lot of coaches say "fuel early, fuel often" to avoid "hitting the wall" during endurance races. Hitting the wall is essentially when your body runs out of stored glycogen that your muscles use for energy. You don't want to wait until you've run out of fuel to start taking in some form of carbohydrates because carbohydrate intake during a race can help sustain endurance.

<b>Endurance races &lt; 2.5 hours</b>	<p>Runners may only need water and/or a sports drink during the race.</p> <p>A runner's pre-race carbohydrate stores (from dinner the day before and breakfast) will fuel the first hour of exercise, so many 5K and 10K runners shouldn't need to take any additional fuel in.</p> <p>For 1-2.5 hour races, consume <b>30-60 grams of carbohydrates per hour</b> (120-140 calories from carbohydrates/hour)</p>
<b>Endurance races &gt;2.5 hours</b>	<p>The recommended carbohydrate intake is 30-60 grams per hour of exercise (although, it has been shown that 60-90 grams per hour is associated with better performance, so it is important to practice fueling during long training runs to find your optimal carbohydrate fueling strategy)</p> <p>Make sure to drink water with all solid/semisolid forms of carbohydrates (Energy gels and chews, candies, anything other than Gatorade) to prevent cramping and GI distress.</p> <p><b>Fueling Strategy:</b> Start consuming a carbohydrate source at ~45 minutes and continue at regular intervals (example: one energy gel every 30 minutes) throughout your race.</p>

## CARBOHYDRATE OPTIONS:

Energy gels and chews	~100 calories	20-25 g carbs
Gatorade (8 oz)	80 calories	21 g carbs
Sport Beans	100 calories	25 g carbs
Fig Newton	55 calories	11 g carbs
Honey (1 Tbsp)	60 calories	17 g carbs
Raisins (1 small box)	130 calories	35 g carbs
Banana (1 medium)	105 calories	27 g carbs