

# Race Fuel

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You're a triathlete—you're body is a high-octane machine. You need the right fuel to maximize your performance. What you eat and drink before and during your race directly impacts what time is ticking on the clock when you arrive at the finish line. So what should you eat and drink? Energy drinks? Gels? Bars? How much? When? Which kind? These are all great questions—let's get right to the answers.

## Race-Morning Breakfast

Eating a healthy breakfast the morning of your race is the keystone of your race nutrition. It sets the stage for everything else you will do leading up to and during your race. Eat breakfast three hours prior to the start of your race. This allows your body ample time to digest the meal allowing you to use the energy from the foods while also minimizing gastrointestinal distress associated with racing on a full stomach. Eat a healthy breakfast made up primarily of eggs, fruits, vegetables, and whole grains or whole grain foods that is similar to your typical breakfasts. This kind of meal replenishes your liver's glycogen (stored carbohydrate) supply that is used up during your overnight sleep, allowing you to start your day, and race, with a full tank. It's that simple—start with a full tank and a relatively-empty stomach. This allows you to take full advantage of your hard-earned endurance that you have developed in your training.

If you are staying in a hotel room without kitchen facilities or for any other reason cannot make a meal similar to your typical breakfasts, you can do well with eating 2-3 energy bars or 500-1,000 calories worth of meal-replacement shakes. Choose the products with the most-natural ingredients. These options work well b/c they are available everywhere, easy to travel with, and provide adequate nutrition to replace your normal breakfast.

## Pre-Race Hydration

Drinking water before your race ensures you that you are starting the race well-hydrated. Wait 30 minutes after you have finished your breakfast and then drink one water bottles (about 20 ounces) of water before you start your warm-up, sipping the whole time. Again, very simple—start your race well-hydrated! This ensures you start the race at even par so that during the race you only need to stay hydrated; you do not have to get back to a normal level of hydration while you are sweating away and losing water at a great rate during your race. Don't

overdo it; 20 ounces is fine. Hyperhydration strategies (attempts to take in extra amounts of water) are ineffective and cause gastrointestinal distress in most athletes.

## **During-Race Nutrition**

Your during-race nutrition helps you to maintain optimal hydration status, maintain optimal electrolyte balance, and provides you with simple carbohydrates to help your body continue to burn stored fat for fuel in metabolism. When you race, your body sweats to maintain a healthy core temperature. Your sweat is composed of water and electrolytes, most notably sodium. One job you have is replacing these nutrients. When you race, you use up your stored carbohydrates (glycogen). Stored fat is your body's primary source of energy during a race. However, both carbohydrate and fat must be available for your body to effectively fuel the muscle contractions that make you go. It is impossible for you to run out of fat during a race, but you can start to run out of carbohydrate in any race longer than a sprint-distance triathlon. Thus, your second job is providing a steady stream of simple carbohydrates that your body can immediately use to keep burning stored fat for fuel.

The most straightforward and most effective way to get the water, sodium and other electrolytes, and simple carbohydrates that you need can be summed up in one sentence:

*Drink the energy drink provided on the race course at a rate equal to your sweat rate during both the bike and the run.*

Drinking at your sweat rate ensures that you are replacing water at the same rate you are losing it. Drinking energy drink ensures that you are replacing you are not only replacing the water lost in your sweat, but also the sodium and other electrolytes lost in your sweat. Lastly, drinking energy drink at this rate gets you all of the simple carbohydrates your body can readily use while racing. For instructions on performing a test of your sweat rate, see the table below. For example, if your sweat rate comes out to 40 ounces per hour, drink 40 ounces of energy drink per hour during the bike and run portions of your races. To simplify this for yourself, do some simple math to determine how many water bottles (about 20 ounces) of energy drink you need to drink per hour on the bike and how many paper cups (about 6 ounces) of energy drink you need to drink per hour on the run. At 40 ounces per hour, you should drink 2 water bottles of energy drink per hour during the bike and 7 paper cups of energy drink per hour during the run.

Although performing a test of your sweat rate allows you to be more precise, the average triathlete will do very well using an assumed sweat rate of 30 ounces per hour. Logistically, the implementation of this approach is very simple—*drink 1 ½*

*water bottles of energy drink per hour during the bike and drink 5 paper cups of energy drink per hour during the run.*

The beauty of this KIS (keep it simple) approach is that it gets you all the nutrients you need in a way that is easy for your body to digest and use and in a way that is very simple logistically. The fact that energy-drink manufacturers are putting in ample sodium and other electrolytes into their drinks and also formulating them near the known ideal carbohydrate concentration of 6% makes this a fail-proof during-race nutrition approach effective at all distances of triathlons.

Be careful of the hype that surrounds sports-nutrition products. If it sounds too good to be true, it is. “Quick bursts of energy”, “special blends of nutrients for the extra edge”? Don’t be fooled by these kinds of statements. Your performance will always be primarily determined by the physical and mental abilities you have developed over months and years of training. During-race nutrition does three very simple, very unmagical things for you. It helps you to maintain optimal hydration status, maintain optimal electrolyte balance, and provides you with simple carbohydrates to help your body continue to burn stored fat for fuel in metabolism. No more, no less.

Use these guidelines as a starting point. When you perform your regular long rides and/or long bricks, practice this approach starting with breakfast and right through the workout. Based on how you feel, adjust your breakfast to one that leaves you feeling energized, but not weighed-down or bloated, and adjust the rate at which you ingest energy drink based on how you feel.

Fueling yourself on race day will help you race your best. Follow these simple guidelines and you are well on your way.

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*To learn more about Jason, Will, and Tri-Hard Endurance Sports Coaching, visit [www.Tri-Hard.com](http://www.Tri-Hard.com).*

Sweat-Rate Test
<ol style="list-style-type: none"><li>1. Weigh yourself naked and dry holding a water bottle filled with water. Record the weight.</li><li>2. Run for one hour at your goal race pace/effort. Drink all the water in your water bottle during the one hour of running.</li><li>3. Weigh yourself naked and dry holding your empty water bottle.</li><li>4. Take the difference in your weight from before and after running. This is how much you sweat per hour in weight of sweat lost.</li><li>5. Calculate how ounces of sweat you lose per hour, using the following conversion factors, as necessary.</li></ol>
2.2 pounds = 1 kilogram

1 kilogram = 1 liter  
1 liter = 33.3 ounces

The total ounces you lost is your sweat rate expressed in ounces per hour.

Quick-Tips Guide		
	Purpose	Guidelines
Race-Morning Breakfast	Replenishes your liver's glycogen (stored carbohydrate) supply that is used up during your overnight sleep, allowing you to start your day, and race, with a full tank.	Eat a healthy breakfast made up primarily of eggs, fruits, vegetables, and whole grains or whole grain foods that is similar to your typical breakfasts.
Pre-Race Hydration	Ensures you start the race well-hydrated so that during the race you only need to stay hydrated; not have to get back to hydrated while you are sweating away and losing water at a great rate during your race.	Wait 30 minutes after you have finished your breakfast and then drink one full water bottle's worth (about 20 ounces) of water before you start your warm-up, sipping the whole time.
During-Race Nutrition	Maintains optimal hydration status, maintains optimal electrolyte balance, and provides you with simple carbohydrates to help your body continue to burn stored fat for fuel in metabolism.	Drink the energy drink provided on the race course at a rate equal to your sweat rate on both the bike and the run.