



OPTIMAL RACE-DAY FUELING HABITS

Get your hydration and fueling down

BY ALAN CULPEPPER

There have been many significant advancements in the endurance sports industry over the last four decades: footwear technology has improved, apparel and technical fibers are better than ever and training philosophy is continually being refined. Even socks have changed tremendously! But perhaps nothing has changed as much as how we think about nutrition for endurance athletes.

There is a wealth of information on what the body needs before, during and after aerobic activity, and there are hundreds of products available to take you as far as you want to go. Even with all the knowledge available, I have noticed that many age-group athletes struggle with race-day marathon nutrition. It's either overemphasized or approached whimsically without a clear, targeted plan.

Race-day nutrition should really be thought of in two categories: hydration and fuel. Both are critical to having a successful experience. As complicated as it can be to fully adopt and comprehend what is needed on a day-to-day basis to optimize your nutrition when training and recovering, when it comes to racing nutrition it's really quite simple: We all need to replenish electrolytes and glycogen, or in even simpler terms, we need sodium and sugar. Not to say that potassium, magnesium and other minerals aren't important, but there are bigger issues at play.

Sodium is found in various amounts in all sports drinks, as is sugar in some form or another. There seems to be science to back whichever hypothesis you prescribe to, but in reality everyone is different and no one single product is best for everyone. Water is always the standard, and to its credit, Gatorade has proven that a 6 percent carbohydrate concentration is the highest you can ingest while still emptying the stomach at the same rate as water. That said, some people absorb fluids while exercising quicker than others and can withstand a higher amount of sugar concentrate. More importantly, every athlete stores different amounts of glycogen (fuel) in their muscles, and burns that stored glycogen at different rates. Also, everyone loses sodium in different amounts and at varying rates. It's clear that electrolyte and fuel needs are different for everyone during a marathon.

The key to a successful race-day fueling and hydration strategy is finding what is right for you and planning accordingly. The good news is that it's hard to take in >>

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► Be aware of what's in your sports drink. A 6 percent carbohydrate concentration is the maximum you should ingest during a race.

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In general, don't vary your eating habits too much in the days leading up to a race. Eating healthy, balanced meals will help keep your energy stores topped off.



Consider eating a banana as part of your pre-race meal. Bananas are high in carbohydrates and potassium and can help promote a calm stomach and digestive system.

Taking in too much fuel can be detrimental and result in an upset stomach or a lack of desire to drink.

>> too many electrolytes while running a marathon. On the contrary, too much fuel can prove detrimental and result in an upset stomach or lack of gastric emptying, which leads to a lack of desire to drink. During my first marathon, I took in a product that was very high in fuel and it led to my stomach not absorbing the calories properly. Due to the working muscles requiring more of the body's overall blood volume, the gut gets very little when working close to threshold effort. I would get to the designated water stations and have no desire or inclination to drink because my stomach still felt full from what I took in three miles earlier. Inevitably, I ran low on electrolytes, slowed over the last few miles and suffered from severe muscle tightness after the race. In my subsequent marathon, I swayed too far in the opposite direction and focused only on taking in electrolytes and not enough on fuel. In the end, I did not find the proper balance. Although I saw positive results in the marathon, I don't believe I used a race-day nutrition strategy to my ultimate benefit.



Two-time U.S. Olympian Alan Culpepper helps runners of all abilities via his Web site at www.culpeppercoaching.com.

EXECUTING A SOLID RACE-DAY NUTRITION PLAN

- Practice ingesting the product you plan to use on race day, whether you carry it with you or use what's provided on the course by race organizers. **Examine the course map to see where the aid stations will be located** and which ones will have sports drinks.
- **Get your system used to taking in fluids while you're training so you can efficiently absorb the fluids during the race.** If you don't drink in practice, not only will you limit your training potential for longer runs, you won't be efficient at absorbing electrolytes and fuel during the race, and you won't recover as quickly afterward.
- Drink throughout the morning. Pounding large amounts of water is never recommended and could prove dangerous. **Instead, nurse fluids for several hours leading up to the race.** Taking in something with some electrolytes is a safe bet just to top off your energy stores.
- Be aware of how much fluid you are actually taking in during the race. One or two cups of water isn't much if you spill half of each cup down your shirt. **Two to four cups at every aid station should be the standard.**
- Take gels, chomps, blocks or beans at a predetermined time, but beware of overloading. **It's best to take these products just prior to an aid station because water is necessary to help aid digestion.** Taking in a sports drink in addition to a fueling product is not recommended. A good rule of thumb is 100 calories about every 35 to 45 minutes during a race.

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Eat a light meal three hours before a race: a bagel, oatmeal, toast with jelly or a little bit of fruit. Coffee is OK, too, if that's part of your normal morning routine.