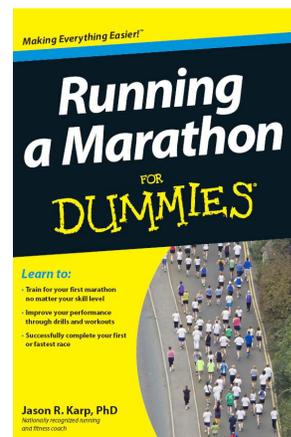


Running Longer, and Longer, and Longer Still

The long run is, unsurprisingly, the key component of marathon training. Of all the different types of workouts you do, the long run most closely simulates the marathon. So runners tend to pay a lot of attention to the long run — and for good reason. Doing so goes a long way toward effecting the physical changes you need to, ahem, go the distance.

You can make the most out of long runs with the help of the guidelines in this chapter. Pacing, hydrating, fueling before and during, your mental approach, what you wear, and when and how often you take long runs, are all things you need to address.



I often get asked if it's okay to break the long run up into two runs on the same day, either because of lack of time or to reduce fatigue. The short answer is no, it's not okay. Make time in your schedule to always complete your long runs all at once. Their specific endurance and metabolic aspects can only be obtained by continuous running. If you break up your long run, you won't deplete your glycogen fuel tank, so you'll miss the opportunity to make all of the great body and mind adaptations mentioned above. You'll also miss the opportunity to callus your mind for the distance. Unless you plan on running the first 13.1 miles of the marathon, stop for a frappuccino break and read the newspaper at Starbucks for a few hours, and then hop back on the course and complete the next 13.1 miles, breaking up your long run isn't going to help you come race day.

Try to do your long runs in the morning, just like the marathon itself. Use the long run as a marathon dress rehearsal. Wear the same shoes, socks, and clothes (yes, even underwear and sports bra) you plan to wear in the race. Practice the same hydrating and fueling strategies, using the same drink and carbohydrate products that you'll use for the race. Practice drinking out of the paper cups they hand out on the race course. (It's harder than it looks!)

Preparing Yourself to Run Long

Sounds obvious, but the only way to prepare yourself to run long is to run long. Running long gives beginner runners the confidence to complete the marathon. Running long gives advanced runners the chance to get creative and add faster-paced running so they can learn to run hard when fatigued and improve their marathon time. The following sections explain the physical and mental effects of running long and provide some useful preparation tips.

Understanding how running long changes your body and mind

When you run for a long time, a lot of interesting adaptations occur in your body, including

* Greater fuel storage: When you run long enough, you deplete (or severely lower) muscle glycogen, your stored form of carbohydrate. Carbohydrate is your muscles' preferred source of fuel, so getting low on glycogen is bad for muscle function. However, your muscles respond rather elegantly to situations that threaten or deplete their supply of fuel: They synthesize and store more glycogen than was previously present, which increases your endurance. Empty a glass and you get a larger refill in its place (much like cocktail parties). The more glycogen you have packed into your muscles, the greater your ability to hold your marathon pace to the finish line.

* Greater reliance on fat: When your muscles run out of carbohydrate, they're forced to rely on fat and so become more effective at using fat for energy. Because the marathon is longer than what you can run on the amount of carbohydrate in your muscles, forcing your muscles to "learn" how to use fat more effectively helps you maintain your pace in the marathon.

* Increased capacity to make more glucose: Your liver, sensing your low fuel tank, takes things that are not carbohydrate — namely, amino acids and lactate — and converts them into carbohydrate, in the form of glucose, so you have more quick fuel and can sustain your marathon pace. That's called gluconeogenesis — literally, the formation of new glucose from non-carbohydrate sources. This process is a very cool aspect of metabolism. Imagine if your car did that when it starts to run out of fuel. Imagine if one part of your car — say, the battery — senses when the car's fuel tank gets low and takes another part of your car — say, the back seat — and converts it into gasoline so you can keep driving on the highway. This process keeps blood glucose levels from dropping too low. Thanks, liver!

* Stronger muscles, bones, tendons, and ligaments: Running for long periods is tough on your muscles and joints, so they adapt by becoming stronger to handle the stress of pounding the pavement for 26.2 miles.

* Greater psychological strength: When you run for a long time, your legs aren't the only body parts that get tired. Your mind does, too. This psychological aspect of long runs may be just as important as the physiological reasons for doing them. If the farthest you've ever run is 5 miles, running 10 miles, much less 26.2 miles, may seem overwhelming. But when you add a little stress at a time, you prepare yourself to handle longer and longer runs.

To order a signed copy of *Running a Marathon For Dummies*, go to run-fit.com/books.