

# Marathon Pace Perfect

Pete Pfitzinger on how to set, learn and maintain your optimal marathon pace



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To run your best marathon, you need to set a challenging but realistic goal and prepare meticulously. Regardless of your goal and training ethic, however, a key requirement for optimal marathon performance is optimal pacing.



There are several possible marathon pacing strategies, but only two with a reasonable likelihood of leading to a personal best performance. The classic strategy for failure is to start too hard and hope you will get away with it. If you are still trying that approach, good luck! At the other end of the spectrum, starting slowly with the expectation that you will feel great and make up for lost time during the second half rarely leads to disaster but is also unlikely to lead to your best race. Although “negative splits” may make you look good as you pass other runners during the latter stages of the marathon, you can only partially make up the deficit incurred from running more slowly during the first half of the race.

The two marathon pacing strategies that are most often successful are 1) running even splits throughout

the race; and 2) slowing a few seconds per mile as the race progresses. While running even splits will come close to using your aerobic system and glycogen stores most efficiently, it may not be the optimal pacing strategy because your body's physiology changes during the marathon.

Your optimal marathon race pace (MRP) is slightly slower than your lactate threshold pace. As your slow-twitch muscle fibers fatigue during the marathon, your body begins to recruit less economical fast-twitch fibers, so your lactate threshold occurs at a slightly slower pace. Unless you are a world-class marathoner, it makes sense to plan for this reduction in economy and to pace yourself accordingly.

For most marathoners in the 2:30 to 4:00 range, the most effective pacing strategy is to run the first half of the marathon about one to three minutes faster than the second half. Using this approach, you will find that you still need to increase your effort moderately during the second half of the race to maintain your pace just below your lactate threshold.

Of course, you also need to adjust your pacing based on the hill profile of the course. If you are fast enough to line up near the front of the pack at the ING New York City Marathon, you may be alarmed to find you run the first mile 10 to 15 seconds slower than your planned MRP, but will be back on target after you run down the other side of the Verrazano-Narrows Bridge. If you are further back at the start of most major marathons, your pacing will likely be erratic during the first few miles as you weave your way through the congestion.

### **Getting used to Marathon Race Pace**

The best way to get used to your MRP is to train at MRP. For most marathoners, I recommend one or two runs of 12 to 15 miles (usually during a longer run) at MRP during the last eight weeks before your marathon. These runs are the most specific marathon preparation that you will do. The intention is to stress your body in a similar way to the marathon, but to limit the duration so your required recovery time is held to a few days. Make sure that you have had a couple of recovery days before an MRP long run, and schedule at least two easy days afterward as well.

During these runs, use the first few miles to warm up, then finish the run with the prescribed number of miles at MRP. In addition to the physiological and psychological benefits these runs provide, they are an excellent chance to practice drinking and taking energy gels at race pace. Runs of six to eight miles at MRP are another useful element of your marathon preparation. As a final reminder not to accidentally start too fast, run a few miles at MRP about four days before your marathon.

Tune-up races are another opportunity to get used to your MRP, with the advantage that you have a measured course, plenty of aid stations, and other people to run with. Be careful, however, to limit yourself to MRP. A half marathon at MRP is an outstanding workout that should only require a few days' recovery, while races of 8K to 10 miles at MRP can replace tempo runs during some weeks of your marathon preparation and generally require only minimal recovery.

## Race Day Tactics

On race day, try to adhere closely to your pacing plan, yet maintain a degree of flexibility due to the weather, how you feel, and the pacing of other runners. Learn your planned splits (writing them on your hand is useful if you get confused later in the race) so you can monitor your progress along the way. If the weather is hot, you will need to run conservatively (and drink more) during the first half and can expect a greater decrement in performance as the race progresses. With correct pacing on a hot and/or humid day, however, you will find that although your finish time is slower than you would have liked, your finishing place is much better than expected.

There is a large psychological and small drafting advantage to running in a group, so you should adjust your pace moderately, if necessary, to stay with other runners. When you are running into a headwind, the drafting advantage becomes significant, so conserve energy by “tucking in behind.” When you get out of the headwind you can then pick your pace back up to MRP. If you are feeling strong during the last few miles of the marathon, pick up your effort based on how you feel with the confidence that you have paced yourself wisely.