

Marathon Pacing: How to Run Your Best Race

By Patrick McCrann

[Marathon Nation](#)

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After months of training and countless miles, your race is here. Hundreds of hours of hard work all come down to one day and 26.2 miles. Yet after juggling workouts and recovery, managing your commitments, and making nuanced adjustments to your nutrition, the most common race strategy for runners is little strategy at all.

Many runners follow these three simple steps:

- 1 — Determine your goal finishing time
- 2 — Divide by 26.2 to get a per mile split.
- 3 — Run that even pace until you blow up, burn out, or hit the finish line...whichever comes first.

But any veteran marathon runner will tell you that their race day splits look nothing at all like that neat little pace band they picked up in the expo. There are countless factors to contend with on race day: crowding, weather, and terrain just to name a few. And let's not forget the biggest factor of all: YOU.

Simple vs Strategic

The pace band strategy is appealing because it's so simple. All you have to worry about is running one simple split, over and over again, to meet the benchmarks and make your goal. Simple on paper, however, is not simple in reality.

At the start of the race you are excited and well-tapered; you have lots of energy. Contrast that with the end of the marathon, where most of us are on the ropes both physically and mentally. Somewhere between these two points is a happy middle ground that allows us to run well without making massive assumptions about our day and our fitness.

Instead, a strategic approach can map out how your body operates across the day. A good strategy allows you to conserve critical energy early, settle into a sustainable pace for the body of your race, and ideally sets you up to run the last few critical miles well.

That Which Doesn't Kill Us...Makes Us Smarter

We can learn a great deal about what we should do to by observing what we did that didn't work.

These two images show what happens when a runner picks an overly aggressive pace for the full marathon distance.



As you can see from the blue chart, the overall pace degrades over time. The real decline starts just before the three hour mark. The runner regroups to run what might be a better pace for about 35 minutes (the 3:40 to 4:15 mark), but at this point even that's too much. He chooses to use a run/walk strategy to keep moving forward, and by the end he's buoyed by the finish line to finish with an effort that matches exactly how he started. In other words, his final "kick" was only as fast as he chose to run those first easy miles.

The Heart of the Matter

As this chart shows above, this marathon runner's real race isn't against the clock, it's against himself. The early aggressive pace he picked didn't "show up" on his heart rate monitor as he was well-rested and tapered. Before long, however, he had gone from the low 140s to cracking 170 beats per minute...a 30-beat swing in under three hours on steady pacing! This is yet another indicator that the initial pacing goal was simply too

Over the course of the race, your heart rate will absolutely go up. When you exercise at a steady rate for an extended period of time, your body uses up its energy stores and needs to keep delivering oxygen to your muscles as they fatigue and become less and less efficient. It simply takes more work later in the day to continue the same pace that was once so easy at the start.

In the case of our runner, the only way he could drop his heart rate to a more manageable level was to drop his pace...by walking. This is a great strategy for managing the heart rate issue, but a poor strategy for getting to the finish line quickly.

Here is the race in his own words:

I ran that race by attempting to run with the 5-hour pacer. I had a month old vDot from at 10K that would have put me at 4:20, so I didn't think a 5-hour marathon was unreasonable. But if you compare my data to the pace Coach Patrick's plan would have put me at, it is easy to see why my marathon became a walk/run sufferfest around mile 16. On plan, my first 6 miles would have been 11:42, when in reality, only 3 of my first 6 were over 11 and only one was close to the 11:42.

After the first 6 I would have been on plan at 11:22 and I was still faster, except for the pitstop in mile 11, until I hit mile 16. The next 10 miles I would walk to get my heart rate down, then run because it hurt a little less than walking. At about 20 miles, my only goal was to save enough energy so the finishing photos would be of me running. As you can see, the minutes I saved (by

running faster) in the first half did not go in a bank, they ultimately cost me 45 minutes on my overall time.

It's Gotta Be the Start

As the red chart reveals, you might not know you've made a poor choice until it's too late. To fix this, you need a strategy that keeps you on track to meet your race goals and also take your heart rate issue into account.

Proper early pacing can offset the damage that typical poor race execution yields. Starting the first three miles of a half marathon too hard means that our HR will continue to go up over time even if our pace declines (your body is working harder but you aren't seeing the results). In fact, nothing short of walking will really help you get your HR back under control, and by that point your race is slowly slipping away.

If you're a savvy pace athlete, start off slightly slower, pegging a lower HR. You can build your effort into your race pace, not doing anything crazy to your muscles/body early on. Knowing the marathon will get hard on its own, there's no need to make things more complicated.

After the initial six mile period where focus is on building an effort from very easy to slightly faster than goal average pace, you can settle into a steady state mode. All the rabbits are long gone, and you can use the next 14 miles to chip away at the extra time that smart early pacing "cost."

Thanks to early pacing and now resultant lower heart rate, you can better process the critical calories and fluids that will help you through the latter stages of the day. Just as your body starts to hurt around mile 20, you can wrap her head around "just" doing a 10K. After all, you've only really been running for 14 miles — those first few easy miles are mentally "free." It also helps that you are now passing lots of other folks, which helps you stay focused and motivated.

Run to the Line; Race to the Finish

It's the Marathon Nation motto, a value we work on instilling from the outset. Regardless of your speed or experience, you can have a great race if you execute well. The power of proper pacing is not in a killer last few miles of your race, but by conserving early energy to make the "meat" of your race--those middle miles--very consistent and powerful. When a race is executed properly, the finishing kick is a function of your fitness and mental fortitude; both of which are much greater supply since you aren't running hard from the gun and crossing your fingers.