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# The 10 Marathon Foundations

Follow these long-time marathon principles and success will be yours!

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The marathon is the most rewarding and exciting event you'll ever enter. It's also the most challenging and potentially the most debilitating. A marathon can result in exhilarating personal triumph and fulfilment, or injury, nausea, cramps, dehydration, heat exhaustion, constant fatigue, hypothermia.

Which of the two scenarios you are likely to face depends largely on your preparation and training programme, and the theory behind every successful marathon is largely the same. The following 10 rules underpin all our marathon programmes, some will be reinforced again as you follow a programme; others you need to think about now. And if you want to develop your own programme or tailor one of ours to your needs, these rules should help to focus your training.

## Rule 1: Start your training from a reasonable base

The typical 12- to 16-week marathon training programme assumes that you have a basic level of endurance before you start. For the Virgin London Marathon, that means being ready more or less by the end of December.

The preparation isn't complicated: roughly speaking, if you're aiming for under four hours, aim to have run four consecutive weeks of 20-25 miles a week by the beginning of your programme. For a target of sub-3:30 your weekly mileage should be 30-35, and you should be clocking a regular 40 miles a week to start the sub-3:00 schedule. Sub-4:30 runners ought to be able to run comfortably three or four times a week by the start of the schedules; and if you've never run before, your priority by Christmas is to get used to jogging for 20-30 minutes non-stop by building up gradually from a combination of walking and jogging three times a week, with a five-mile walk at the weekends.

Think of this training as being the foundation of your basic endurance and muscle strength. You won't regret it: it will minimise your risk of injury or overtraining as you follow the schedules.

## Rule 2: Set a specific but realistic goal

Every plan needs a goal; the marathon is no exception. If you simply want to complete the distance in comfort, then our [Get You Round programme](#) is your best bet. If you have more specific time aspirations, follow one of the time-targeted schedules. But which one? When deciding on your time goal, don't pick a figure simply because you want to finish a marathon in that time. The goal should be based on your ability and the training you are prepared to take on. You can estimate your marathon potential from your recent performances over shorter distances.

Multiplying your 5K time by 9.7 or your 10K time by 4.7 will give you a rough rule-of-thumb of what you are capable of. If you divide the figure by 26.2 you will obtain your perfect marathon pace in minutes per mile. If you don't know what your 5K or 10K time is, consult our [race calendar](#) and consider running one before your schedules start.

## Rule 3: Gradually build your specific endurance

This is the ability to run longer and longer distances at marathon pace. It is a critical part of any successful marathon programme, which will help you develop a sense of pace, improve your running efficiency, stop you running out of steam in the last few miles, and above all give you the confidence that you can actually run the marathon at your hoped-for pace.

You should aim to do a marathon pace (MP) session every second week, alternating between long runs. The effort of a

MP session should be hard but achievable, since it should be about 40-60 seconds per mile slower than your 10K pace. Ideally you should try to build from a six-mile MP run in the first weeks of your programme up to about a 12-mile maximum. MP runs of longer than 12 miles are like races, which is not the point of the session. The MP run is also something you should aim to do (in six-mile sessions) in the last weeks of your schedule, as you curtail the long run.

## **Rule 4: Improve your lactate threshold pace (LTP)**

LTP is the running pace above which large amounts of lactic acid begin to accumulate in the blood. Exercise scientists believe this leads to increased fatigue during running. All you need to know, however, is that LTP is one of the leading predictors of marathon success. If you can improve it, your marathon time will get better. A six per cent improvement in LTP – which should be fairly easy for someone who doesn't currently focus on this kind of training – will produce a nine-minute improvement in your marathon time.

You can use two special sessions to increase your LTP: run 10-minute intervals at your current 10K pace (do two or three intervals with five-minute recoveries) or do a continuous 25-minute tempo run at a pace that's 12-15 seconds per mile slower than your usual 10K race pace.

## **Rule 5: Increase your leg muscle strength and power**

This is one area that is often overlooked by marathon runners, who mistakenly think that leg-muscle strength is more important for short distances than for the marathon. They are wrong.

If you run a marathon in 3:30, and use a common stride rate of 180 steps a minute, you are taking 37,800 steps in the entire race. If you had better leg-muscle power you would achieve two things: you'd spend less time on the ground with each footstrike, and you'd increase your stride length.

It's easy to see how this could help your time. If improved power helps you reduce your time on the ground per footstrike by just 0.02 of a second, an almost infinitesimal change, your marathon time will be 12:36 faster ( $0.02 \times 37,800$  strides). And if the same improvement in leg-muscle power helps to improve your stride length by just half an inch, you'll gain almost 500 metres, which could be another two minutes off your time.

The best way to build leg strength and power is to do strengthening exercises twice a week. The best exercises are squats, leg extensions, thigh curls (for the hamstrings and buttocks), leg presses, toe raises and heel raises. These exercises will lower your risk of injury by fortifying your joints and protecting your legs from the pounding of marathon training.

You can also develop power and improve efficiency in the major running muscles of the legs by doing hill intervals. Find a hill that is 75-100 metres from bottom to top and run intervals at an intensity that feels slightly harder than 5K race pace. Start with seven or eight intervals, each followed by an easy jog back to the bottom of the hill.

## **Rule 6: Make your long runs count**

Most runners training for a marathon believe that long runs of 18-20 miles prepare them to handle the full 26.2-mile distance. But these runs only prepare you to run part of the marathon at a slower-than-marathon pace. To make your long runs more specific to the upcoming race, you should run the early miles at 45 seconds per mile slower than marathon pace but then run the last three miles at MP. This will teach your leg muscles to function at your goal pace even when they're already tired, which is exactly what you will need them to do on marathon day.

## **Rule 7: Build your aerobic capacity**

Having a high aerobic capacity (VO<sub>2</sub>max) will increase the blood-flow to your leg muscles, ensuring that they get all the oxygen that they need during the marathon. This will help you combat fatigue. Long runs improve VO<sub>2</sub>max, but you can also boost it by running 800m intervals at your best two-mile pace, 1200m intervals at 5K pace and one-mile intervals at 10K pace. Start with two or three intervals and build up to five or six; between each effort, jog for the same amount of time as it took to complete the interval.

## **Rule 8: Carbo-load daily during marathon training**

You need to consume 3-4g of carbohydrate per pound of body weight per day (if you weigh 11 stone that's 460-615g of carbohydrate, the exact figure depending on how many miles you are actually running).

If you don't consume this much carbohydrate, your leg muscles will gradually become glycogen-depleted, leading to poorer-quality sessions and an increased risk of overtraining. Ensure that your consumption plan includes about 300 carbohydrate calories immediately after running. Studies show that this is the time when your muscles will most easily assimilate the carbohydrate.

Don't worry if you gain a pound or two when you begin this high-carbohydrate diet. It is probably just essential additional water that your body stores with the glycogen. These additional pounds will disappear as your better-fuelled leg muscles take you through higher-quality sessions.

## **Rule 9: Taper**

This is the golden rule of marathon training, which forms one of the main cornerstones of all our schedules. If you don't taper (ease off) sufficiently for the race, you may find that you've wasted all those hard sessions. You will find that our schedules reduce your training for three weeks before the race, falling from 85 per cent of mileage with three weeks to go, to 75 per cent in the penultimate week and 50 per cent in the final week.

## **Rule 10: Run a smart marathon**

For a perfect marathon, you should start out at precisely the average pace that you'll need to hit your target, or even a few seconds per mile slower. The key is not to go out too fast. All of our Team in Training pacers follow this approach. Studies have shown that runners who exceed their marathon pace by as little as two per cent during the first few miles of the marathon (which is very easy to do, and could be only 10 seconds per mile) are the ones who have the greatest drop-off in pace in the last six miles.

Also, be sure to carbo-load during the marathon. No matter how well you've followed this practice beforehand, your leg muscles are eventually going to run low on glycogen during the race. To avoid this, try to drink five or six mouthfuls of a carbohydrate drink 15 minutes before the start of the marathon and every 15 minutes during the run. This is something you should practise regularly throughout training.