



MELBOURNE  
MARATHON  
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# BEGINNER/ INTERMEDIATE HALF-MARATHON GUIDE



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# Introduction to Running



## Getting Started

Don't compare your own training to someone else. Everyone is different and everyone's bodies respond differently to different types of training. The race is where you will seek to be your best self.

This training programme is a guide and you should not run if you feel any serious pain or discomfort. If you have any preexisting medical conditions, it is a good idea to seek medical advice before beginning a training programme.

Footwear is really important. Finding out what type of runner you are can help you choose the best trainer for you. It is advisable to wear ALL the clothes you plan to wear in the race a couple of times before hand in training just to make sure it is comfortable.

It is good to wear a heart rate monitor for threshold training, to monitor your effort and to achieve the best result in the session.

## Warm Ups and Cool Downs

These are both vital parts of any training session. The main focus of a warm up is to prepare the body for some faster running. A warm up should be a slow jog followed by some light stretching and activation exercises. It is important to get the blood flowing and the muscles warm before starting to push it.

A cool down is equally as important to return the body to a more relaxed state following hard exercise. Again, a light cool down jog will not only help the muscles recover the next day but will also bring the heart rate down slowly.



# Description of Sessions

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## Interval Session

The interval session should be done at 80 % of your maximum effort on the day. The recovery should be done as a walk or slow jog. The sessions can be done on either the grass, trail, track, treadmill or road. Interval sessions are a good chance to work hard and push yourself. You should be working hard and not be able to hold a conversation. They are good for teaching the body how to tolerate faster speeds.

## Easy Run

Easy runs are to be done to feel. The purpose of the easy run is to flush out the legs in between hard training days. Easy runs also help to build mileage in the week. It should be at a pace which you feel is steady and which you can maintain for the duration.

## Strides

Strides are short 20-30 second bursts at around 95% effort, with walk back recoveries. These help to improve running form, increase stride length and leg turnover and benefit running economy.

## Long Run

The long run is good to practice race nutrition. When training for a half-marathon, it is important to build up the long run close to race distance. As you start to get fitter, you will find that your pace will increase, and you will be able maintain the pace for longer without fatigue.

## Pick Up Run / Threshold

A pick up run is a continuous run in which the pace changes throughout. It is good for building endurance as well as simulating a race environment. These are great for increasing tolerance to fatigue which is simulated in the race. You should only be able to manage very short sentences throughout.

## Cross Training

This is an EXTRA and doesn't have to be done each week. If you are feeling good and want to increase your training load, then cross training is a great way to do this. Options include; bike, swim, elliptical etc... Also, strength training is a great addition to a week.



# Introduction to Nutrition



## Aims and Objectives

Training and nutrition are two key variables that interact to determine overall performance. In this way, nutrition strategies are arguably just as important as time spent in the running shoes and should be periodised to match the demands of training.

Through the manipulation of nutrients across the training weeks and around individual sessions, sport nutrition has roles to play in:

1. Fuelling and recovery
2. Promoting training adaptations
3. Facilitating changes in body composition

This section of the guide will cover the fundamentals of nutrition, hydration and supplements. Linking back to the specific run sessions and how to tailor your intake around these, providing a detailed nutrition strategy alongside the training programme at the end of the guide.

Like many topics, nutrition is very individual. Although the advice in this section will apply to the vast majority of people, do not feel you have to follow it if you have certain dietary requirements or preferences.



# Nutrients, Hydration and Supplements

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## Carbohydrate

As one of the three dietary macronutrients, carbohydrate comprises of sugars, starches and fibre. They act as the primary energy source in the body and provide a source of stored energy in the form of liver and muscle glycogen.

When it comes to exercise, carbohydrate yields more energy per litre of oxygen consumed and is a more efficient fuel than fat, providing energy quickly to be used by the working muscles. As a result, carbohydrate can be thought of as the preferred fuel for performance.

In this way, interval sessions, pick-up runs and weekend long runs should all be undertaken with high carbohydrate availability. Whereas, easy or recovery runs can be fuelled using our own body fat stores. This periodised approach to carbohydrate intake, known as fuel for the work required, promotes performance in the hard sessions and training adaptations or desired changes in body composition in the easy runs.

## Protein

Proteins function in a number of different ways within the body, contractile proteins are responsible for making our muscles produce force, structural proteins provide structure to our muscles and the enzymatic proteins help provide the action molecules that can break down carbohydrate and fat to produce energy.

Protein is a central nutrient for the endurance athlete and daily protein intake should not be compromised. As it relates to run performance, protein supports both training adaptations and muscle repair. The stress of endurance exercise creates a metabolic signal to instruct our muscles to make new proteins involved in aerobic metabolism e.g. mitochondrial enzymes. Exercise also causes our muscle fibres to actually break down (referred to as protein degradation), a process that can of course be detrimental to training adaptation.

In the presence of adequate protein feeding, the combined effects of exercise and protein ingestion results in the formation of new proteins (referred to as protein synthesis). It is these repeated changes, in response to every single training session, that forms the basis of how our muscles adapt and recondition to the demands of training.



## Fat

Fats play a role in both health and performance. A small amount of fat is essential in a balanced intake, providing essential fatty acids and aiding in the absorption of fat-soluble vitamins. Fat is also metabolised during exercise to contribute towards overall energy production. However, this is a relatively slow and inefficient process compared to carbohydrate, meaning that fat contribution to high-intensity running or racing is minimal.

## Hydration

During exercise your body heats up. To keep body temperature at an optimal level, water is drawn from blood plasma and secreted from pores in the skin, as sweat. While this mechanism aids thermoregulation, excess fluid and electrolyte loss can have a negative impact on exercise performance.

As fluid losses increase and the water content of blood decreases, the body reduces the peripheral blood flow to the skin surface to preserve the blood supply to the muscles and vital organs. This reduces the body's capability to dissipate heat, and with a drop in blood volume, heart rate increases to meet the demands to sustain the same level of exercise. This ultimately leads to feelings of fatigue and premature exhaustion.

## Supplements

Although there isn't a universal definition for supplements or a comprehensive list as such, individuals may use nutritional supplements for performance or health reasons. These include those providing energy and macronutrients (i.e. carbohydrate gels, recovery shakes, protein bars), micronutrients (i.e. multivitamins, fish oils, vitamin D3) or single compounds (i.e. caffeine, beta alanine, tart cherry).

## Micronutrients

While the three aforementioned macronutrients will contribute the majority of daily intake, micronutrients are required in comparatively small amounts. The term micronutrient describes a range of vitamins and minerals essential in the diet, as our body cannot produce these. Further, any deficiencies are likely to have negative consequences.

Micronutrients support day-to-day health, physiological functions, growth, maintenance and exercise associated wellness. Through eating a balanced diet rich in fruits and vegetables, including a range of colours throughout the day and not excluding food groups, individuals can meet their recommended daily allowance for micronutrient intake.

However, large volumes of endurance training, excluding individual nutrients or complete food groups, periods of energy restriction, allergies and dietary preferences can all result in micronutrient deficiencies. In these situations, supplementing with vitamins and minerals may be advised.



# Nutrition for Performance

A woman with brown hair tied back, wearing a neon green tank top, is drinking from a pink SIS water bottle. The background is a blurred outdoor setting with trees and sunlight filtering through.

## Training

The duration, intensity and goals of each training run will impact daily and session nutrition requirements. Carbohydrate can often change day-to-day, depending on the workload of that day, whereas daily protein intake should never be compromised.

## Easy Run

The duration and intensity of this run lends itself to a train-low approach, deliberately restricting carbohydrate feeding around the session. Easy runs can still include a protein feeding before and caffeine can be used to lower the perception of effort, including 500 ml of Hydro + Caffeine in the hour before an easy run.

## Pick-Up, Threshold or Interval Run

These key sessions in the training week are designed to be tough, requiring increased levels of effort and quality running. High-carbohydrate availability around the session is key, providing the fuel to perform. Additionally, the duration and intensity of some of these runs may call for GO Isotonic Energy Gel usage in session.

## Long Run

It is important to have a nutrition plan going into your chosen event and testing

this out on long run day is essential. This allows the body to adapt to the challenges of carbohydrate loading and taking on carbohydrate while running, training the gut to tolerate this. Everything from the day(s) leading into an event, pre-event breakfast, in-race fuelling and post-race recovery should be practiced. How this comes together into a race-day plan is in the following section and this plan should be mirrored for each long run in training.



## Nutrition for Half-Marathon Day

Carbohydrate stored in the body, in the form of liver and muscle glycogen, is metabolised quickly for energy production and is the preferred fuel for high-intensity running. However, our body has limited capacity to store glycogen. To maintain performance throughout the half-marathon, it is important to maximise carbohydrate availability through pre-race and in-race nutrition strategies.

### Pre-Race

Carbohydrate intake can be increased in the 24-hours before race-day, often referred to as carbohydrate-loading, aim for 8-10 g of carbohydrate per kilo body mass per day, from simple carbohydrates. Food options can include pasta, bread, rice, cereals, potatoes, jelly sweets and fruit, with the additions of GO Energy Bars and Beta Fuel to conveniently meet overall needs. The goal of this is to load the muscles and liver with glycogen, while minimising fat and fibre on these days can prevent excess full or bloated feelings.

Breakfast then acts as a key meal on the day of your half-marathon. Travel, race-day stress and logistics can cause other distractions on race day, so knowing what you're going to eat and being comfortable with this is going to get you to the start line in the best shape. Your breakfast should reflect this and include normal breakfast foods providing 2-3 grams of carbohydrate per kilo body mass (i.e. 140-210 grams for a 70 kg runner), 1-3 hours before the start to allow for full digestion, minimising chances of gastrointestinal distress while running. High-carbohydrate sports drinks such as Beta Fuel can be used to meet both carbohydrate and hydration needs on race morning.







## In-Race

**Energy:** Aim to take in 30-60 g of carbohydrate per hour of running. Fuelling should start in the first hour – if you wait until you are tired or hungry to start eating this is often too late. Alongside fluid intake, an hour of energy could be 2-3x GO Isotonic Energy Gels.

**Hydration:** Personal fluid requirements will vary, aim not to lose greater than 2-3% body mass as a result of sweat loss. This usually means consuming 500 ml of fluid per hour depending on sweat rate, temperature and humidity – drinking additional fluids as needed. Optimising hydration in race requires both fluids and electrolytes, taking little and often from each water station is advisable versus waiting until you are thirsty and having large volumes of fluid. GO Energy + Electrolyte gels can then be used to meet energy demands and deliver additional sodium.

## Recovery

Half-marathon running depletes muscle glycogen stores, causes muscle damage and results in fluid loss. Your recovery nutrition should therefore focus on both carbohydrate and protein intake to replenish muscle glycogen and repair muscle damage. Fluid and electrolytes should be provided to aid rehydration. REGO Rapid Recovery Plus can be used within 30 minutes of finishing a race to meet these needs and kick-start the recovery process.









# Training Plans

## Nutrition

Session	Example Session	Pre-Run Nutrition	In-Run Nutrition	Post-Run Recovery
<b>Easy Run</b> Withhold CHO before a morning run or after an evening run. Protein and caffeine can be used before the session to support muscle recovery and lower the perception of effort during the run.	8 km run	500 ml Hydro + Caffeine	n/a	Breakfast as normal or a low-CHO evening meal
<b>Interval Session</b> Ensure high CHO availability for the session. Caffeine pre-run can lower the perception of effort, meaning you can maintain high performance output through the intervals. Include both CHO and protein in the recovery window, to replenish muscle glycogen and repair muscle damage.	2 km warmup 5 x 3 mins - 2 mins rest 5 x 2 mins - 1min rest 5 x 1 min - 30 sec rest 2 km cool down	1 x GO Isotonic Energy Gel 15-30 minutes before the session	1 x Hydro tablet in 500 ml of water to sip as required	1x REGO Rapid Recovery Plus
<b>Pick-Up Run</b> Ensure high CHO availability for the session, through pre-run and in-run nutrition choices. Include both CHO and protein in the recovery window, to replenish muscle glycogen and repair muscle damage.	3 km easy 3 km @ HMP 2 km @ 10KP 2 km easy	1 x GO Energy Bar or banana 60-90 minutes before the session	1x GO Isotonic Energy Gel after the first 30-45 minutes, to fuel the latter stages of the run when fatigue is likely to be highest	1x REGO Rapid Recovery Plus
<b>Long Run</b> CHO will be the preferred fuel for performance on half-marathon day. Ensure high CHO availability for the long run, through pre-run and in-run nutrition choices. Hydration needs will be very individual, with the goal of preventing 2-3 % body mass loss through sweat loss.	19 mile run	High CHO breakfast 1-3 hours pre-session	30-60 grams of carbohydrate per hour  2-3 x GO Isotonic Energy Gels per hour	1x REGO Rapid Recovery Plus
		<b>Key</b>	CHO = carbohydrate	



## Featured Products

<p><b>GO Isotonic Energy Gel</b></p> <ul style="list-style-type: none"> <li>• 22 grams of carbohydrate in an isotonic gel</li> <li>• Convenient format to fuel run performance</li> <li>• Used during longer runs, practicing race-day nutrition strategies and on race-day to fuel the half-marathon</li> </ul>	
<p><b>GO Energy + Electrolyte Gel</b></p> <ul style="list-style-type: none"> <li>• 22 grams of carbohydrate and 120 mg sodium</li> <li>• Carbohydrate provides energy during long runs and sodium is the key electrolyte the body regulates fluid balance on</li> <li>• Used to fuel long runs and on marathon day</li> </ul>	
<p><b>Hydro Tablets</b></p> <ul style="list-style-type: none"> <li>• Virtually calorie free effervescent tablet with key electrolytes</li> <li>• 360 mg sodium to promote hydration</li> <li>• Meets day-to-day and in-session hydration needs</li> </ul>	
<p><b>Hydro + Caffeine Tablet</b></p> <ul style="list-style-type: none"> <li>• Virtually calorie free effervescent tablet</li> <li>• 360 mg sodium to promote hydration and 75 mg caffeine to lower the perception of effort</li> <li>• Used before morning easy runs or hard interval sessions</li> </ul>	
<p><b>Beta Fuel</b></p> <ul style="list-style-type: none"> <li>• High carbohydrate sports drink</li> <li>• Providing 80 grams of carbohydrate in 500 ml water, while maintaining an isotonic profile</li> <li>• Used as part of a carbohydrate loading strategy the day before a race and throughout the morning of the half to meet energy and hydration needs</li> </ul>	
<p><b>GO Energy Bar</b></p> <ul style="list-style-type: none"> <li>• 26 grams of carbohydrate in a convenient 40-gram bar</li> <li>• Natural base of oats, fruit juice concentrates and dried fruits</li> <li>• Used 1-2 hours before a pick-up or tempo run to ensure high carbohydrate availability for the session</li> </ul>	
<p><b>REGO Rapid Recovery Plus</b></p> <ul style="list-style-type: none"> <li>• Complete recovery product with carbohydrate, protein, electrolytes, vitamins and minerals</li> <li>• Used after long runs, high-intensity sessions and racing</li> </ul>	



## Half-Marathon plan: 12 weeks

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
<b>Week 1</b>	REST	45 minute endurance run	REST or Gym session/ optional cross training day	REST	Pick up run: 1 km easy 2 km @ 70 % 2 km @ 80 % 1 km easy	REST	8 km run
<b>Week 2</b>	REST or Gym session/ optional cross training day	6 km run	REST	REST or Gym session/ optional cross training day	Pick up run: 1 km easy 2 km @ 70 % 2 km @ 80 % 1 km easy	REST	10 km run
<b>Week 3</b>	5 km run	REST	<b>Interval session:</b> 2 km warmup 5 X 600 M - 2 min recovery	REST or gym session / optional cross training day	5 km run	<b>Interval session:</b> 1 km warmup 3 km @ 70 % 2 km @ 80 % 1 km cool down	11 km run
<b>Week 4</b>	REST	<b>Interval session:</b> 1 km warmup 5 X 90 sec - 90 sec rec 5 X 60 sec - 60 sec rec 5 X 30 sec - 30 sec rec 2 km cool down	REST or gym session / optional cross training day	10 km run	REST	<b>Interval session:</b> 2 km warmup 6 X 1 min hill efforts - jog down recovery 1 km cool down	11 km run
<b>Week 5</b>	5 km run + 5 X 30 sec strides	<b>Interval session:</b> 3 km warmup 5 X 2 km - 2mins recovery 3 km cool down	REST or gym session / optional cross training day	10 km run	<b>Pick up run:</b> 2 miles easy 2 miles @ HMP 1 mile @ 10KP 1 mile easy	REST	13 km run
<b>Week 6</b>	8 km run	<b>Interval session:</b> 2 km warmup 5 X 800 m - 2 min recovery 5 X 30 sec - 30 sec recovery 2 km cool down	REST	11 km run	<b>Interval session:</b> 2 km warmup 6 X 1min hill efforts - jog down recovery 2 km cool down	REST	16 km run

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	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
<b>Week 7</b>	REST or gym session / optional cross training day	10 km run				REST	16 km run
<b>Week 8</b>	REST or gym session / optional cross training day	<b>Interval session:</b> 2 km easy warmup 5 X 2 km - 2 mins recovery 5 X 200 m - 1 min recovery 2 km cool down	10 km run	<b>Pick up run:</b> 2 km easy 3 km @ HMP 3 km @ 10KP 3 km @ HMP 2 km easy	REST	8 km run	19 km run
<b>Week 9</b>	5 km run	<b>Interval session:</b> 2 km warmup 3 mins - 2 min jog 2 mins - 1 min jog 1 min - 30 sec jog 1 min - 30 sec jog 2 mins - 1 min jog 3 mins - 2 min jog 2 km cool down	REST	<b>Progression run:</b> 2 km easy 3 km @ HMP 3 km @ 10KP 2 km easy	10 km run	REST	21 km run
<b>Week 10</b>	REST or gym session / optional cross training day	<b>Interval session:</b> 2 km warmup 5 X 3 mins - 2 mins rest 5 X 2 min - 1 min rest 5 X 1 min - 30 sec rest 2 km cool down	8 km run	REST	<b>Interval session:</b> 2 km warmup 6 X 1 min hill efforts - jog down recovery 2 km cool down	REST	16 km run
<b>Week 11</b>	8 km run + 5 X 30 sec strides	<b>Interval session:</b> 2 km warmup 5 X 2 km @ HMP - 2 mins rec 2 km cool down	REST or gym session / optional cross training day	8 km run	6 km run + 5 X 1 min strides - 30 sec jog rec	REST	10 km run
<b>Week 12</b>	REST	8 km run	<b>Interval session:</b> 2 km warmup 5 X 2 mins - 2 mins rec 5 X 1 min - 1 min rec 2 km cool down	REST or gym session / optional cross training day	5 km run	REST	Half marathon race



## Key Notes

- Pick up run percentages are of your HR max.
- Interval sessions should be done at 80% of your maximum effort on the day.
- Sunday is 'long run' day. This is where you will build up to the longest distance. The pace should be steady. Not race pace.
- All other runs should be done easy based on feel.
- It is a good idea to practise with your race nutrition on a long run or a session.
- Training sessions can be done on the road/track/trail.
- HMP - Half marathon pace
- 10KP - 10k pace
- MP - Marathon pace



# Authors

The training section and 12-week plan has been created by Charlotte Purdue.

Charlotte is a British Marathoner, 2018 British half marathon champion, British Junior 10,000m record holder and Science in Sport ambassador. Charlotte also offers online running coaching through Purdue Performance – bespoke running coaching for everyone with an elite touch. Further information on Purdue Performance is available at [www.purdueperformance.com](http://www.purdueperformance.com) or [purdue\\_performance](#) on Instagram.

The nutrition section and supplementary nutrition plan in the guide has been created by Ben Samuels.

Ben is the Performance Nutritionist at Science in Sport, with a background in sports science and an MSc in Sport and Exercise Nutrition. He works with elite athletes in cycling, athletics and team sports.

Photos of Charlotte Purdue were supplied by Jonathan Wellings.



Ben Samuels



Charlotte Purdue

**PURDUE  
PERFORMANCE**  
*running for you* 