

# WINTER RUNNING GUIDE



# INTRODUCTION

The days may be shorter and colder, but there's no excuse not to put the winter months to good use and start making next season's running gains.

In this guide, we've put together a 5-week progressive training programme for middle (10km) to long distance (Half marathon+) runners, paired with nutritional guidance on how to fuel right and get the most from the programme.

The programme is based on training 4-5 days per week. The strength and conditioning elements can be performed before the run sessions and should take no longer than 20 minutes.

Each exercise is body-weight based, so it can even be performed from the comfort of your home.



## WEEKS 1-2;

will focus on strength training and base runs, with an introduction to interval training.



## WEEKS 3-4;

will move towards tempo and speed training, with strength as a supporting element.



## WEEKS 5-6;

The final weeks are mostly interval and tempo work with mediated strength training to improve aerobic and performance capacity.



## THINGS TO NOTE

- This programme is designed with the improvement of weaknesses at its core; its design therefore allows you to repeat any week of the programme you feel is necessary until you've made good progression before moving onto the next training block
- Each session is accompanied with a nutritional guide (pre-during-post) to let you know which product best complements that particular session
- The program is design to use strength training to complement running and help build muscular strength alongside your running; the strength component is not designed to replace running, it should be used in conjunction with the structured running program to aid progression and improvement
- Training speeds: The 1.5 mile tempo test at the start of week 1 is designed to give you an indicator of not only your fitness but also your threshold training levels. The pace at which you can run 1.5 miles is your maximum threshold pace, your tempo pace for training runs should be based on this

[Click here to download our pace percentage calculator sheet.](#)

**THERE ARE NO  
SHORT CUTS  
TO RUNNING  
PERFORMANCE.**

**STICK WITH THE  
PROGRAM AND YOU  
WILL IMPROVE.**

- Max Willcocks, SiS Ambassador and Running Coach



# STRENGTH TRAINING

The dynamic strength training within this programme is designed with the specific movements and relevant muscle groups involved within running in mind. The aim is to develop strength and mobility in specific muscles using isolated exercises. We are breaking down the mechanics of the running stride and focusing on the muscular elasticity of one muscle group at a time.

Conditioning particular muscle groups (e.g. glutes) at any one time is important to create a stronger whole when used through a compound movement (i.e. running). We must create a disconnect between hamstring/glute and quad/glute in order to focus on the individual components of the running stride.

The strength phase will focus on glute and hamstring strength for forward and vertical speed. Development of the Glute Med will also reduce valgus knee issues and improve alignment through the stride, ultimately reducing the chances of 'runners knee'.

The strength phase will also include movements to develop your quad strength to enable stability through landing and any down-hill impact.

The S&C element is not designed to replace running; it is created with the specific intention to be used in conjunction with a running program. Strength training alone will not develop you as a runner, but will improve your running capacity particularly with developing speed, stability and power (hill running).

Key to this element will be your nutrition and recovery protocol; a runner will usually require 1.2-2 grams of protein per kg of body-weight within their diet to sufficiently prepare and recover from a running specific strength and conditioning program. Try to consume this amount in small doses, like 20-25 grams every 3-4 hours and again before bed. This is in addition to a well-balanced diet of carbohydrate (including simple sugars) and fats at appropriate times.

# STRENGTH & CONDITIONING



YouTube instructional video available

Dynamic Strength x20 reps	
Lunge	Single leg good morning (10 x reps each leg)
Rotational lunge	Isometric lunge hold (45 secs)
Split lunge	Isometric lunge quad hold (45 secs)
Squat	Sumo Squat
Side squat	Curtsy Squat

Plyometric Strength x20 reps	
Jump Squat	Jump squat to sumo
Jumping split lunge	Reverse lunge to jumping knee skip
Lateral squat skips	

Core Strength x20 reps	
Mountain climbers	V-Sits
Russian twists	Plank (45 secs)

# WEEK 1-2

## BASE & STRENGTH (STRENGTH DEVELOPMENT)

### Overview:

Week one will focus on the strength & development of muscles required for efficient, controlled and powerful running technique by using the above strength based exercises. This will be coupled with base mileage to help build leg strength and injury prevention.

The S&C element will also help with our mobility as we become comfortable working within a larger range of motion than our normal running stride.

A small amount of interval training sessions are included, none of which are overly demanding (or shouldn't be, so scale appropriately).

At the start of the program you will also find a base test, which will be completed again at the end of the program so you can measure your improvement.

WEEK 1	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	
Pre training nutrition	GO Electrolyte	GO Hydro	GO Electrolyte	GO Hydro	Whey Protein & GO Electrolyte	Whey Protein & GO Electrolyte		
Strength & training	2x all dynamic strength	2x all plyo exercises.	2x all core and all dynamic strength exercises.	No S&C	4x all dynamic strength exercises	4x all core exercises	No S&C	
	Pre run 1x caffeine gel	5 mile base run @ 50-60% pace	Negative split 4 mile progressive run- 60%/65%/70%/75% pace Speed up each mile	Easy base run 4 miles. Nothing faster than 65% pace	Pre run 1x caffeine gel	6 miles base @ comfortable pace 50-60% pace	Rest	
Running	1.5 miles as fast as possible. 90-95% pace	During Run 1x Isotonic gel	During Run: Isotonic Gel		5 mile run of 1 mile intervals. 1 mile @ slow (50% pace) 1 mile @ fast (75-85% pace) Alternate till 5 miles.	During Run: Isotonic gel/GO Electrolyte powder	Use 1x WHEY20 between meals	
Post training nutrition	1 x REGO Rapid Recovery Serving	1 x REGO Rapid Recovery Serving	1 x REGO Rapid Recovery Serving	1 x Whey Protein Serving	1 x REGO Rapid Recovery Serving	1 x REGO Rapid Recovery Serving		
Nutrition Rationale	Caffeine can be used to decrease the perception of fatigue during short runs. The high intensity nature will deplete energy fast, making REGO important for recovery.	Use GO Hydro to 'pre hydrate'	With full body S&C and 4 mile run, use GO Electrolyte throughout the day and during exercise to top up energy stores. Use REGO post session to aid recovery.	Today won't require much energy. Use GO Hydro to 'pre hydrate' and rebuild using a whey protein shake.	Take a whey protein shake throughout the day, before the session as well as a pre-run caffeine gel to aid concentration during the 5 miles.	The longest run of the week, use GO Electrolyte to top up energy stores pre training and carry a bottle with you during your run. Recover with REGO within 30 minutes.		Take it easy today, but make sure you keep your protein intake up by using a WHEY20 between breakfast and lunch and/or lunch and dinner.



# WEEK 1-2

## BASE & STRENGTH (STRENGTH DEVELOPMENT)

Overview:

Building on our first week of base and strength training the aim in week 2 is to perform the base running more comfortably whilst progressing the interval training.

There is more of an emphasis on building the dynamic strength component as we work to develop our muscular elasticity. We will look to develop muscular tension over a larger range of motion without over stimulating muscles.

There will also be an introduction to hill training (glute stimulus).

Remember: you can choose to repeat weeks 1 or 2 before moving on to weeks 3-4 if you feel there are areas of weakness here.



WEEK 2	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Pre training nutrition	GO Electrolyte	GO Electrolyte	GO Electrolyte	GO Hydro	WHEY Protein & GO Electrolyte	GO Electrolyte	
Strength & training	4x all dynamic strength	3x all dynamic strength 1x all plyometric	3x all core & all dynamic strength exercises.	No S&C	4x all dynamic strength exercises	4x all core exercises	No S&C
	Pre run 1x caffeine gel 5 mile base 50-60% pace then 1 mile increased pace 70-90% pace	2 mile base 50-60% pace then 4x 3 min fast 80% pace 3 mins slow 50% pace	Negative split 4 mile progressive run- 60%/65%/70%/75% pace Speed up each mile	Rest Use 1x WHEY20 between meals	Pre Run 1x caffeine gel 1 mile base then 4x 6 min fast (75% pace) 3 mins slow (55% pace)	7 mile base run 55-65% pace During Run: Isotonic gel	Rest Use 1x WHEY20 between meals
Post training nutrition	3x scoop REGO Rapid Recovery	3x scoop REGO Rapid Recovery	3x scoop REGO Rapid Recovery		3x scoop REGO Rapid Recovery	3x scoop REGO Rapid Recovery	
Nutrition Rationale	Caffeine can be used to decrease the perception of fatigue during short runs. The high intensity nature will deplete energy fast, making REGO important for recovery.	A tough S&C and interval session requires GO Electrolyte to help keep carbohydrate levels topped up. Use REGO post run to replace stores.	With full body S&C and 4 mile run, use GO Electrolyte throughout the day and during exercise to top up energy stores. Use REGO post session to aid recovery.	Take it easy today, but make sure you keep your protein intake up by using a WHEY20 between breakfast and lunch and/or dinner.	Use GO Electrolyte in the morning as well as WHEY20 between breakfast and lunch. Use a caffeine gel immediately pre run and recover with REGO.	Carry an Electrolyte gel or GO Electrolyte bottle during your run and consume throughout. Recover within 30 minutes of finishing with REGO.	Take it easy today, but make sure you keep your protein intake up by using a WHEY20 between breakfast and lunch and/or dinner.

# WEEK 3-4

## STRENGTH & INTERVAL (SPEED DEVELOPMENT)

### Overview:

Here we start to look at the development of interval work in preparation for more reliance on tempo training in week 5.

We still incorporate strength training, but the emphasis here is on it being functional and explosive.

We'll start to introduce light tempo sessions and start to vary the incline to maintain muscular strength.

WEEK 3	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Pre training nutrition	GO Electrolyte	GO Electrolyte	GO Electrolyte	GO Hydro	GO Electrolyte	GO Electrolyte	GO Hydro
Strength & training	3x all plyometric exercise, 1x all dynamic strength	2x all plyometric strength 2x all core strength	2x all dynamic strength 2x all plyo strength	Rest	4x all plyometric strength	4x all core exercises	Rest
	Pre run 1x caffeine gel	Pre run 1x caffeine gel	Pre run 1x caffeine gel	Rest Use 1x WHEY20 between meals	Pre Run 1x caffeine gel	7 mile base 55-65% pace	Rest Use 1x WHEY20 between meals
Running	10x 1/2 mile intervals. Alternate fast 75% pace & slow 55% pace	1 mile warm up 55-65% pace 12x 400 meter repeats 100% pace with 1 minute rest. 1 mile warm down 55-65% pace	2 mile base 55-65% pace then 4x 3 min fast 80% pace 3 mins slow 55% pace	Rest	1 mile base 55-65% pace then 5x 6 min fast 75% pace 3 mins slow 50% pace	During Run: Isotonic gel/ GO Electrolyte powder	
Post training nutrition	1 x REGO Rapid Recovery Serving	1 x REGO Rapid Recovery Serving	1 x REGO Rapid Recovery Serving		1 x REGO Rapid Recovery Serving	1 x REGO Rapid Recovery Serving	
Nutrition Rationale	Caffeine can be used to decrease the perception of fatigue during short runs. The high intensity nature will deplete energy fast, making REGO important for recovery.	A tough S&C and interval session requires GO Electrolyte to help keep carbohydrate levels topped up. Use REGO post run to replace stores.	Use a GO Electrolyte to top up energy stores throughout the S&C session. Recover after the run using REGO within 30 minutes of finishing.	Take it easy today, but make sure you keep your protein intake up by using a WHEY20 as a snack.	Use GO Electrolyte in the morning as well as 1x WHEY20 between breakfast and lunch. Use a caffeine gel immediately pre run and recover with REGO.	Carry an Electrolyte gel or GO Electrolyte bottle during your run and consume throughout. Recover within 30 minutes of finishing with REGO.	Keep hydrated throughout the day using 1 or 2 GO Hydros. Take a WHEY20 between meals to keep your protein intake up.

## WEEK 3-4

### STRENGTH & INTERVAL (SPEED)

#### Overview:

Here, we start to build on strength from the initial two weeks of training and the introduction to interval training.

We'll start upping the base miles and keeping up the interval sessions.

As with weeks 1-2, if you feel you would benefit from repeating weeks 3 or 4 before heading into the final training week, do so.



WEEK 4	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Pre training nutrition	Whey protein & GO Electrolyte	Whey protein & GO Electrolyte	Whey protein & GO Electrolyte	GO Hydro	Whey protein & GO Electrolyte	Whey protein & GO Electrolyte	GO Hydro
Strength & training	3x all plyometric exercise, 1x all core strength	3x all plyometric strength 1x all core strength	3x all plyo strength 2x all dynamic 1x call ore	Rest	4x all plyometric strength	4x all core exercises	Rest
	Pre run 1x caffeine gel	Pre run 1x caffeine gel	Pre run 1x caffeine gel	Rest	Pre Run 1x caffeine gel	8 mile base 55-65% pace	Rest
Running	1 mile base 55% pace, 8x 3 mins fast 75% pace 3 mins slow 55% pace	4 mile base 55% pace 6x 400 meter repeats 100% pace with 1 min rest	10x 1/2 mile intervals. Alternate fast 75% pace & slow 55% pace	Use 1x WHEY20 between meals	1 mile base, 55% pace 4x 4 mins fast 75% pace 2 mins slow 55% pace 1 mile warm down	During Run: 1 x Isotonic gel + electrolyte powder	Use 1x WHEY20 between meals
Post training nutrition	1 x REGO Rapid Recovery Serving	1 x REGO Rapid Recovery Serving	1 x REGO Rapid Recovery Serving	1 x REGO Rapid Recovery Serving	1 x REGO Rapid Recovery Serving	1 x REGO Rapid Recovery Serving	
Nutrition Rationale	Caffeine can be used to decrease the perception of fatigue during short runs. The high intensity nature will deplete energy fast, making REGO important for recovery.	A tough S&C and interval session requires GO Electrolyte to help keep carbohydrate levels topped up. Use REGO post run to replace stores.	Use a GO Electrolyte to top up energy stores throughout the S&C session. Recover after the run using REGO within 30 minutes of finishing	Take it easy today, but make sure you keep your protein intake up by using a WHEY20 as a snack	Use GO Electrolyte in the morning as well as 1x WHEY20 between breakfast and lunch. Use a caffeine gel immediately pre run and recover with REGO	Use GO Electrolyte during your run and consume throughout. Recover within 30 minutes of finishing with REGO. This is the longest run of the week.	Keep hydrated throughout the day using 1 or 2 GO Hydros. Take a WHEY20 between meals to keep your protein intake up.

# WEEK 5

## INTERVAL AND TEMPO (SPEED ENDURANCE)

### Overview:

In our final week, there will be a small amount of strength training, 1-2 times per week.

There will now be a strong reliance on tempo and interval training with an occasional easy base run to act as active recovery.

Mileage for the week will start to decrease as intensity of sessions increases.

The week ends with a repeat of the base test which was completed day 1 week 1; remember, give it everything and enjoy seeing the improvement.

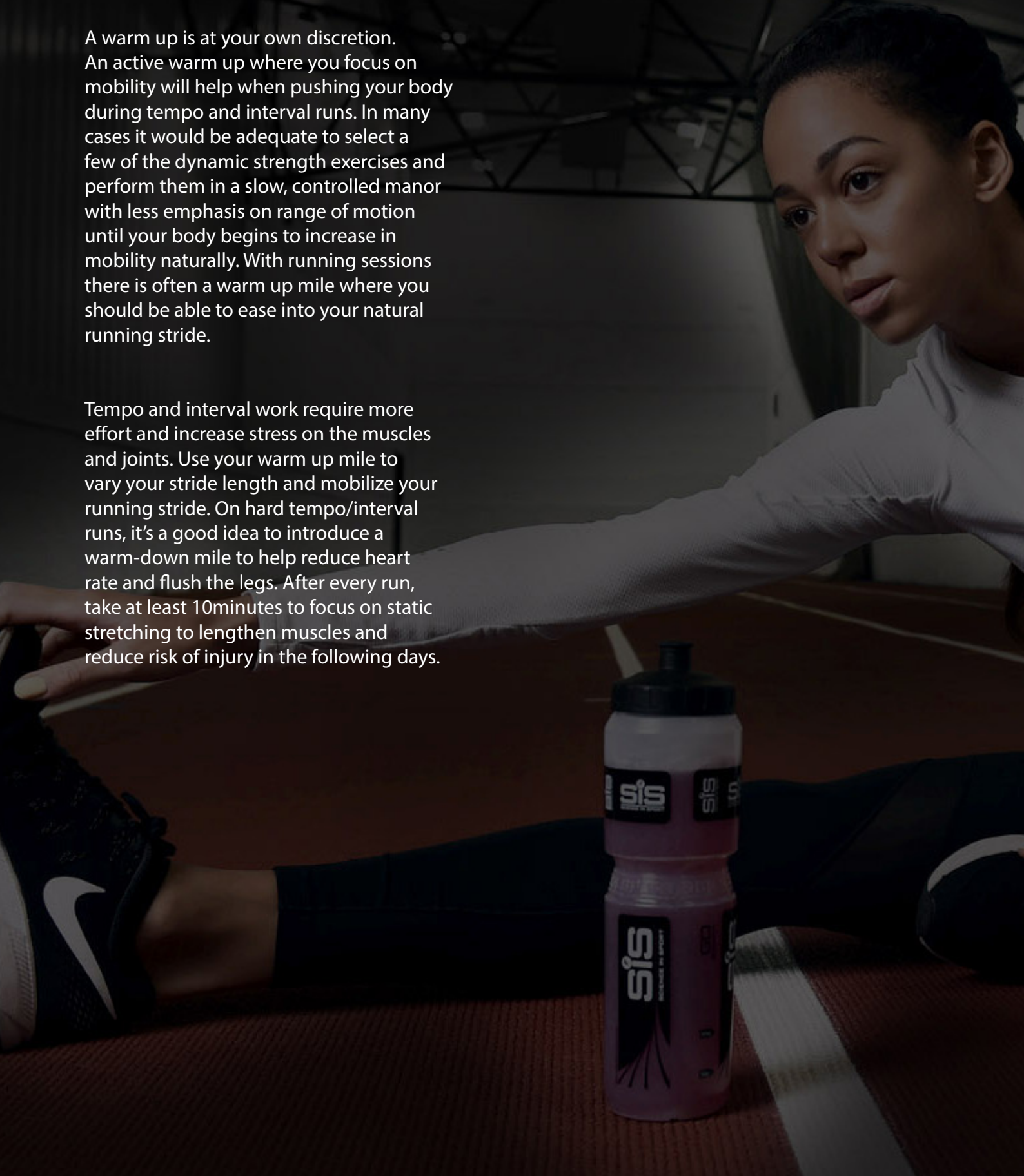
WEEK 5	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Pre training nutrition	GO Electrolyte	GO Electrolyte	GO Electrolyte	GO Hydro	GO Electrolyte	GO Electrolyte	GO Hydro
Strength & training	3x all plyometric exercise, 1x all core strength	3x all plyometric strength 1x all core strength	2x all core strength	Rest	4x all plyometric strength	4x all core exercises	Rest
	Pre run 1x caffeine gel	Pre run 1x caffeine gel	Pre run 1x caffeine gel	Rest	4 mile base 50-60% pace	Pre run 1x caffeine gel	Rest
Running	1 mile warm up 55% pace 3 miles tempo 75% pace, 1 mile warm down 55% pace	1/2 mile warm up 55% pace 2 mile tempo 75% pace 1/2 base 55% pace 3 mile tempo 75% pace	Track intervals: 1600M 80% 1400M 80% 1200M 85% 1000M 90% 800M 90% 600M 95% 400M 100% 200M 100% each off a 400M jog	Use 1x WHEY20 between meals	During Run: Isotonic gel/ GO Electrolyte powder	1.5 miles as fast as possible 100% pace	Use 1x WHEY20 between meals
Post training nutrition	1 x REGO Rapid Recovery Serving	1 x REGO Rapid Recovery Serving	1 x REGO Rapid Recovery Serving		1 x REGO Rapid Recovery Serving	1 x REGO Rapid Recovery Serving	
Nutrition Rationale	Caffeine can be used to decrease the perception of fatigue during short runs. The high intensity nature will deplete energy fast, making REGO important for recovery.	Similar to yesterday. An electrolyte gel can be used instead, providing carbohydrate and electrolytes, which can aid hydration.	A tough interval session requires pre fuelling using an electrolyte or caffeine gel. This can help you gain the mental advantage. Recover with REGO	Take it easy today, but make sure you keep your protein intake up by using a WHEY20 as a snack	Not the toughest of days, but taking on GO Electrolyte throughout is good practice for when you need to fuel during a competition.	This will be a tough 100% run. Prepare with a caffeine gel and recover with REGO	Keep hydrated throughout the day using 1 or 2 GO Hydros. Take a WHEY20 between meals to keep your protein intake up.



# WARM UP/ WARM DOWN/ STRETCHING

A warm up is at your own discretion. An active warm up where you focus on mobility will help when pushing your body during tempo and interval runs. In many cases it would be adequate to select a few of the dynamic strength exercises and perform them in a slow, controlled manor with less emphasis on range of motion until your body begins to increase in mobility naturally. With running sessions there is often a warm up mile where you should be able to ease into your natural running stride.

Tempo and interval work require more effort and increase stress on the muscles and joints. Use your warm up mile to vary your stride length and mobilize your running stride. On hard tempo/interval runs, it's a good idea to introduce a warm-down mile to help reduce heart rate and flush the legs. After every run, take at least 10 minutes to focus on static stretching to lengthen muscles and reduce risk of injury in the following days.



# SPORTS NUTRITION 101 FOR RUNNERS

We've put together a summary of the key nutritional areas for runners to consider and how to apply them over the winter months.

## IMMUNITY

During winter months, we are often more susceptible to colds and infections. For this reason, it is important to ensure we are not deficient in vitamins and minerals by always including salad and vegetables with main meals as well as consuming fruit with snacks and in smoothies etc. Additionally, vitamin C is known to promote immune function and for this reason, it is also useful to consume SiS Immune either during your training sessions or with one of your main meals.

## ENERGY

Carbohydrate remains the main fuel source for runners over winter, particularly with high intensity based sessions. Carbohydrate is stored in the muscles and liver as glycogen, when you exercise, this carbohydrate is broken down into glucose and transported to the muscles to be used as energy.

You will not be able to perform at your best without sufficient carbohydrate stores and you could 'hit the wall' during your run. For sessions under 90 minutes, the focus should be on pre-exercise nutrition but for higher-intensity sessions or sessions lasting over 90 minutes, aim to hit 60g per hour. This can be done with a range of SiS energy products (bars, gels, GO Electrolyte), the preference of which to use is largely individual. Although many of your training runs may not last this long, it's important to practice your fuelling strategy in training, so when it comes to race day, you know what works!

## HYDRATION

Sweating is generally reduced with colder temperatures, but during intense exercise (even in cold weather) you sweat and with this you lose electrolytes. Fluid, along with electrolytes need replacing or you will become dehydrated. Here, emphasis should be on starting runs in a hydrated state which can kick start your performance, helping you to maintain hydration throughout the duration of your run. Adding electrolytes to your water can help you better retain and absorb fluid into the system, allowing you to hydrate more effectively.

## RECOVERY

The aim of recovery is to make the most out of your training, increase adaptations and be ready to train again with minimal fatigue. During high intensity sessions your body will use up its carbohydrate stores. Recovery starts as soon as you finish and your muscles are most receptive to replenishing your glycogen stores within the first 30 minutes. You should take advantage of this window by consuming carbohydrate within minutes of finishing your session. REGO Rapid Recovery is the ideal full recovery product containing carbohydrate, protein, key electrolytes as well as vitamins and minerals.

## REBUILD

During intense conditioning exercise muscle fibres tear, which is what causes muscle soreness. Muscle fibres are made from proteins, which are made from amino acids known as the building blocks of protein. Muscle protein synthesis is the process of rebuilding these muscle fibres. Consuming high quality protein with a full amino acid profile can help initiate protein synthesis. All SIS protein products contain a full amino acid profile and are ideal to take when you haven't dipped into your energy stores too much. To keep protein synthesis active throughout the day, we recommend that you consume 20-25g of protein every 3-4 hours. A WHEY20 can help you hit this goal, with an innovative and convenient format.

## CAFFEINE

Caffeine acts centrally on the brain to lower the perception of effort. We recommend that adults should try and limit their caffeine intake to around 300mg per day, although there is an individual tolerance that only you will know! When preparing for a short, high intensity run, take your caffeine gel around 30 minutes before so that plasma caffeine peaks during the run. Is caffeine not for you? Use an Isotonic Gel or Electrolyte gel instead, still providing you with 22g of carbohydrate.



# ABOUT THIS GUIDE

## TRAINING INFORMATION

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All training information in this guide has been created by Max Willcocks. Max is an ultra/trail runner, as well as a nutritionist with a background in strength & conditioning. He has raced in various events all over the world, from cross country skiing in the arctic to mountain running in the Colorado Rockies

You can find out more about Max here:



## NUTRITIONAL INFORMATION

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All nutritional information in this guide has been provided by Science in Sport's Performance Nutritionist Ted Munson.

Ted has worked in elite sport for the past four years, working with athletes in rugby and tennis and most recently with Hull City Football Club as a sports scientist. Ted has a degree in BSc in Sports Science from Hull University and is currently working towards his MSc in Sports Science, focusing on hydration markers in elite athletes.

Got any more nutrition questions?

Email [nutrition@scienceinsport.com](mailto:nutrition@scienceinsport.com) and SiS' expert team will answer them!

## **The Science in Sport Promise**

When you commit so much time, energy and determination to being the best you can be, you want a sports nutrition partner that truly understands endurance sport – one that you can trust to provide the best products and expert guidance.

Science in Sport's expertise, combined with feedback from the elite athletes such as Sir Chris Hoy and Mark Cavendish, ensure SiS continue to innovate and improve their existing range of trusted endurance nutrition products. Our passion means our products are truly trusted and recommended.

SiS tests products over and over again until they are right. We do this to ensure we provide

you with the right range of products with the best possible ingredients for your needs – so that you can focus on performing to the best of your ability. That's our promise – the best science to deliver the best products and the best advice for your sports nutrition.

## **Disclaimer**

The contents of this guide are to help readers prepare for marathons safely and effectively. It should not be used as a substitute for proper medical advice. If you are in any doubt about whether you are able to tolerate marathon training, always seek proper medical advice. SiS or the author cannot be held responsible for illness arising out of the failure to seek medical advice from a doctor.



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