

# FUELLING THE 10km RUN TRAINING

- Easy Runs
- Progression Runs
- Speed Sessions
- and Long Runs

# FUELLING THE 10KM RUN RACE

- Fuelling
- Carbohydrate loading
- Pre-race meal
- Fuelling during the race



#### FUELLING THE 10KM TRAINING

The 10km race represents a physically demanding endurance event. Following a well-structured training program is crucial for optimising performance and minimising the risk of injury. Your 10km training programme should balance aerobic endurance sessions with speed and strength work, leading to a solid aerobic base, whilst also improving your speed and strength.

Alongside training, nutrition plays a key role in optimising performance during 10km training by fuelling your body for intense workouts, enhancing recovery and promoting training adaptations. Despite these well established and scientifically proven benefits of fuelling, nutrition remains one of the biggest things that 10km runners get wrong, drastically reducing the progress made during their 10km training programme and, ultimately, how fast they can run on race day itself.

This guide sets out some simple steps for you to implement before, during and after the most common training sessions completed as part of 10km training: Easy Runs, Tempo Runs, Speed Sessions and Long Runs.





#### FUELLING THE EASY RUNS

Easy Runs help you build aerobic base, which plays an important role in your ability to run long distances. These are usually completed twice per week, and you should run between 6-10km as part of these sessions. As the aim of these runs is to help you build your aerobic base, you should complete these sessions at a pace that allows you easily hold a conversation with someone while you run.

To fuel these runs, you should aim to consume a meal containing 1.5g/kg body mass of slowly digestible carbohydrates around 2.5-3 hours in advance. You should also consume ~20g of protein as part of the pre-training meal. Given the reduced intensity and duration of these runs (~1h), there is no additional need for carbohydrate consumption during the run. You should focus on consuming 500-600ml of water per hour and you can include electrolytes to support hydration. Post-run, it is important that you start consuming a mix of carbohydrate and protein early to re-store your energy stores (glycogen) and repair your muscle.

A fuelling guide to support your Easy Runs is shown on the next page.



4 KEY ELECTROLYTES

- ⊗ Sodium



# FUELLING THE EASY RUNS

#### FUELLING STRATEGY PROVIDING:

120g CARBOHYDRATE (CHO) PRE-RUN
500ml FLUIDS AND 350mg SODIUM DURING RUN
20g PROTEIN AND 20g CARBOHYDRATES POST-RUN









#### FUELLING THE TEMPO RUNS

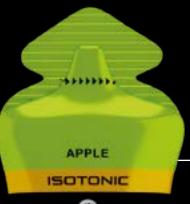
Tempo Runs are key for building your body's ability to run faster for longer. During these runs you will be running at a comfortably high pace (between 10km and half-marathon pace) for fairly long periods of time and you will run usually between 8-10km.

To fuel these runs, you should aim to consume a meal containing 2g/kg body mass of easily digestible carbohydrates around 3 hours in advance. You should also consume ~20g of protein as part of the pre-training meal. Given the increased intensity and duration of these runs (~1h), you should aim to consume 30-60g of carbohydrate per hour during the run. You should also focus on consuming 500-600ml of water per hour. Post-run, it is important that you start consuming a mix of carbohydrate and protein early to re-store your energy stores (glycogen) and repair your muscle.

A fuelling guide to support your Tempo Runs is shown on the next page.

36g of carbohydrate plus electrolytes per serving





22g carbohydrate (CHO)





# FUELLING THE TEMPO RUNS

FUELLING STRATEGY PROVIDING:

PRE-RUN:

150g CARBOHYDRATE (CHO)

DURING THE RUN:

60g CARBOHYDRATE (CHO)

500ml FLUIDS 75mg CAFFEINE POST RUN:

20g PROTEIN

20g CARBOHYDRATE (CHO) POST-RUN



300g cooked white rice 100g grilled sea bass 200g grated beetroot



GO Isotonic Energy Gel +150ml water



GO Energy + Caffeine Gel • +200ml water



GO Isotonic Energy Gel +200ml water



1 x REGO CLEAR RECOVERY serving

#### FUELLING THE SPEED RUNS

Speed Runs are crucial for improving a range of physiological characteristics, including your speed, power, strength and running economy. During these runs you will be running at a fast pace for brief periods of time (3-4 minutes), followed by an active recovery (walking) for a number of repetitions, otherwise known as intervals.

To fuel these runs, you should aim to consume a meal containing 2g/kg body mass of easily digestible carbohydrates around 3 hours in advance. You should also consume ~20g of protein as part of the pre-training meal. Given the high intensity of these runs, you should aim to consume 60g of carbohydrate per hour. You should also focus on consuming 500-600ml of water per hour. Post-run, it is important that you start consuming a mix of carbohydrate and protein early to re-store your energy stores (glycogen) and repair your muscle.

A fuelling guide to support your Speed Runs is shown on the next page.



20g Protein 20g Carbohydrate (CHO)



#### FUELLING THE SPEED RUNS

FUELLING STRATEGY PROVIDING:

PRE-RUN:

1 x GO Electrolyte

+ 500ml water

PROVIDING 150g CARBOHYDRATE (CHO)

DURING THE RUN:

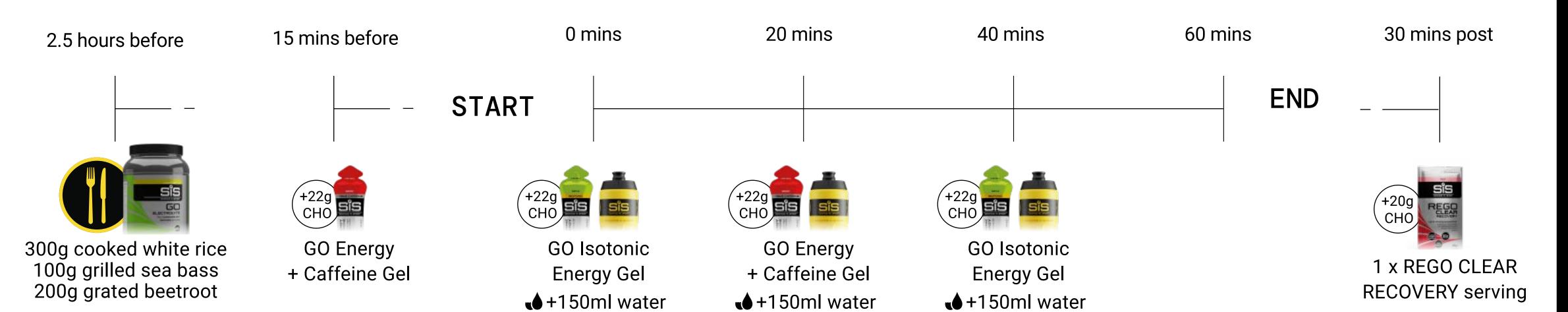
60g CARBOHYDRATE (CHO)
500ml FLUIDS

75mg CAFFEINE

POST RUN:

20g PROTEIN

20g CARBOHYDRATE (CHO) POST-RUN





#### FUELLING THE LONG RUNS

Long Runs are crucial for building your endurance capacity and preparing you physically and mentally for the 10km race. You will usually run between 11-16km at a low pace during these sessions. It is important that you use these runs to practice your race-day routine. From the kit and shoes that you are planning on using during the race, to your pre-race meal and your in-race fuelling and hydration, everything should be practiced during these runs.

To fuel these runs, you should aim to consume a meal containing 2g/kg body mass of easily digestible carbohydrates around 3 hours in advance. Furthermore, as our liver glycogen stores are reduced by around 50% when we sleep overnight, and most Long Runs are done over the weekend in the morning, it is important to include fructose-rich foods or drinks (such as BETA Fuel) in your pre-run meal (breakfast). You should also consume ~20g of protein as part of the pre-training meal. Given the high intensity of these runs, you should aim to consume 60g of carbohydrate per hour. You should also focus on consuming 500-600ml of water per hour. Post-run, it is important that you consume a large serving of carbohydrate (1g/kg body weight) and protein (20-30g) early to re-store your energy stores (glycogen) and repair your muscle.

A fuelling guide to support your Long Runs is shown on the next page.

80g Carbohydrate (CHO) per portion





### FUELLING THE LONG RUNS

FUELLING STRATEGY PROVIDING:

172g CARBOHYDRATES (CHO) PRE-RUN

DURING THE RUN:

60g OF SINGLE-SOURCE CARBOHYDRATE (CHO) AND 600ml FLUIDS PER HOUR, 150mg CAFFEINE IN TOTAL

POST RUN:

60g CARBOHYDRATE (CHO)

30g PROTEIN





250ml milk 80g puffed rice cerial 3 Dates 1 X BETA Fuel Drink



GO Isotonic **Energy Gel** +150ml water



**GO** Isotonic Energy Gel +150ml water

**GO Energy** +200ml water GO Energy

+ Caffeine Gel + Caffeine Gel

**(a)** +200ml water

**GO** Isotonic **Energy Gel** 

+200ml water



BETA Recovery Dual source recovery drink



#### FUELLING THE 10KM

The 10km race represents a highly physically demanding endurance event. After months of training and preparation, the final week of 10km race preparation should be focused around two goals:

- 1. Significantly reducing your training volume through tapering.
- 2. Fuelling for race day by consuming a sufficient quantity of carbohydrates.

Despite the well established and scientifically proven benefits of fuelling, nutrition remains one of the biggest things that 10km runners get wrong, drastically reducing how fast they can run on race day itself. Fuelling can be the difference between a good race and a great race, and can play a major role in helping you set your personal best. Simply put, fuelling can be the key to unlocking your true performance potential.

This guide sets out some simple steps for you to reach your own podium.





#### CARBOHYDRATE LOADING FOR THE 10KM RUN

For most club runners, the target finishing time is likely between 40 and 60 mins, equivalent to a running speed of between 10 and 15km/h respectively. To run at these speeds, carbohydrate is the predominant fuel and depending on your physical fitness levels, it is estimated that you would burn carbohydrate at an average rate of 3-4.5g per minute. This could result in a total carbohydrate use between 200 and 250g.

Because our body can typically store around 500g of carbohydrates (stored as "glycogen"), it is essential that we complete one day of a carbohydrate loading diet to increase our muscle glycogen stores before the race. Studies have consistently shown that runners do not eat enough carbohydrates in the day before the race, meaning that runners would arrive on the start line with sub-optimal glycogen stores and that some of their glycogen stores would run out quicker during the race.

As a result, your race pace would slow down, and you would begin to fatigue much quicker. However, if you carbohydrate load correctly in the day before the race, you will improve your ability to maintain your target race pace and improve your overall finish time.

To increase our glycogen stores before the race, it is recommended to consume a total daily carbohydrate intake of 6-8g/kg body mass for one day before.

To consume this volume of carbohydrates, it is recommended that your daily plan is comprised of low fibre foods and that a significant portion of carbohydrate is provided in the form of carbohydrate drinks and snacks. This will increase your ability to digest and store the carbohydrate and reduce feelings of being bloated.

There are a range of SiS products that can support your carbohydrate loading targets including GO Energy, GO Bars, GO Energy Bakes and even the SiS BETA Fuel range.

A fuelling guide to support your carbohydrate loading plan is shown on the next page.



# CARBOHYDRATE LOADING FOR 10KM

CARBOHYDRATE LOADING PROTOCOL, PROVIDING:

587g CARBOHYDRATE (CHO) (~7g/kg OF BODY WEIGHT FOR A 80kg RUNNER)
SERVING SIZES NEED TO BE ADJUSTED BASED ON YOUR INDIVIDUAL BODY WEIGHT

Breakfast

SIS BETA FUEL

250ml milk + 80g rice krispies 1 X BETA Fuel Energy Drink Mid-morning snack



+46g CHO

250ml milk + 80g rice krispies 1 X BETA Fuel Energy Drink Lunch

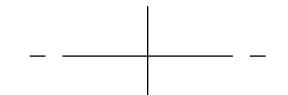




One large baguette + handful spinach
30g fresh mozzarella, 30g low-fat ham
+ couple cherry tomatoes

+ 250ml orange juice

Mid-afternoon snack





250g rice pudding + one spoon of honey Dinner



250g boiled rice + 100g grilled salmon 50g grated beetroot 1 X BETA Fuel Energy Drink



#### THE PRE-RACE MEAL

Having correctly carbohydrate loaded (i.e. optimising muscle glycogen storage) in the day before the race, the goal of your pre-race meal is to top up your "liver" glycogen stores. This is because our liver glycogen stores are actually reduced by around 50% when we sleep overnight and therefore, we need to replace this liver glycogen with our pre-race meal. Again, this meal comprises of easily digestible and low fibre solids, containing around 2g/kg body mass. This should be consumed at least 2½-3 hours before the start of the race.

Runners often make the mistake of over-eating at the pre-race meal and also consume this meal too close to the race. This can result in you starting the race feeling bloated and can cause gastrointestinal problems during the race itself. Rather, you should be aiming to commence the race feeling light in your stomach but with your muscles and liver fully fuelled and ready to go.

A fuelling guide to support your pre-race meal is shown on the next page.

# SIS SCIENCE IN SPORT SIS SCIENCE IN SPORT SIS SCIENCE IN SPORT SIS SCIENCE IN SPORT ORANGE & MANGO FLAVOLIR SIS SC

#### 5 KEY ELECTROLYTES

- ⊗ Sodium



## PRE-RACE MEAL

PRE-RACE MEAL PROVIDING:

PRE-RUN:

232g CARBOHYDRATE (~3g/kg OF BODY WEIGHT FOR AN 80kg RUNNER) SERVING SIZES NEED TO BE ADJUSTED BASED ON YOUR INDIVIDUAL BODY WEIGHT.

Pre-race meal 3 hours before

2hrs before the race



1 hour before the race

Marathon start





**BETA Fuel Energy Chews** 1 × HYDRO+

2 slices of white bread + 50g jam 250ml milk + 80g puffed rice cereal 3 Dates 1 × BETA Fuel Drink

+300ml water



#### FUELLING DURING THE RACE

Even when you have carbohydrate loaded correctly and ate a carbohydrate rich pre-race meal, consuming additional carbohydrate during the race improves your performance by maintaining your blood glucose levels at a high level, delaying the use of your glycogen stores for later in the race and having a direct effect on your central nervous system, reducing the sensation of fatigue.

For this reason, it is critical to also consume carbohydrate during the race. If you are expecting to finish the race in ~60 minutes, It is recommended that you consume up to 60g of carbohydrates during the race. Faster runners that expect a ~40 minutes finish time, should consume 40g of carbohydrates during the race. This can be achieved through single source formulations (comprising maltodextrin) using a combination of gels and fluids. Within the SiS product range, this could incorporate both SiS GO Isotonic gels and SiS GO Electrolyte.

A fuelling guide to support an in-race fuelling target of 60g and 40g is on the next 2 pages.

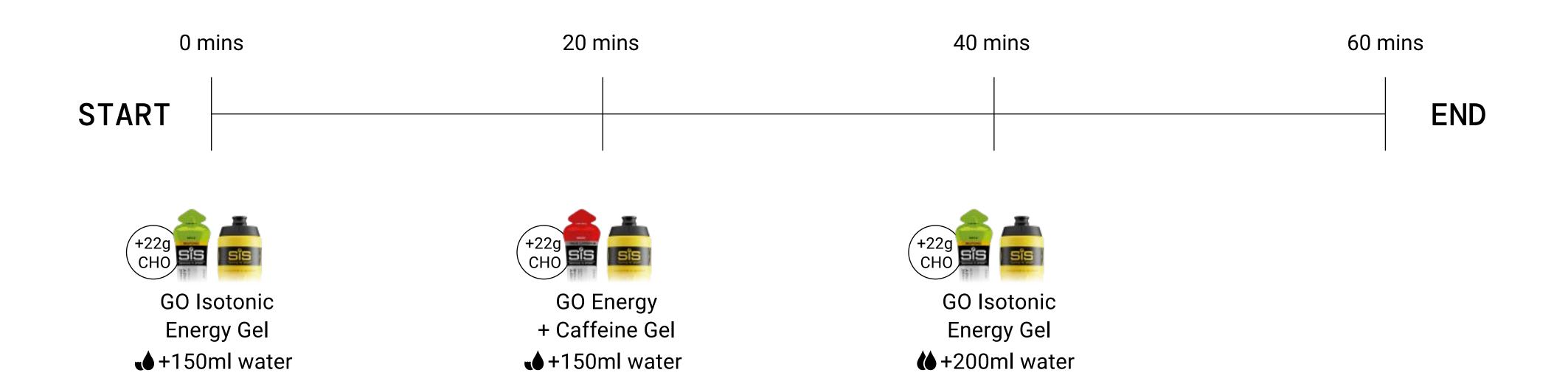




# FUELLING DURING THE RACE (60G CARBOHYDRATE PER HOUR)

FUELLING STRATEGY PROVIDING:

60g OF SINGLE-SOURCE CARBOHYDRATE (CHO)
500ml FLUIDS
75mg CAFFEINE

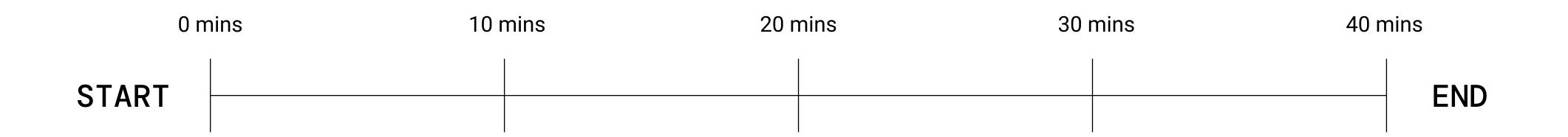




# FUELLING DURING THE RACE (60G CARBOHYDRATE PER HOUR)

FUELLING STRATEGY PROVIDING:

40g OF SINGLE-SOURCE CARBOHYDRATE (CHO) 400ml FLUIDS 75mg CAFFEINE





GO Energy + Caffeine Gel

+200ml water ★ +200ml water

**GO** Isotonic

**Energy Gel** 



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