



MARATHON

FUELLING GUIDE





MARATHON - FUELLING GUIDE



FUELLING THE MARATHON TRAINING

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

FUELLING THE MARATHON RACE

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

FUELLING THE MARATHON TRAINING

The marathon represents a highly physically demanding endurance event. Following a well-structured training program is crucial for optimising performance and minimising the risk of injury. Your marathon 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 marathon training by fueling 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 runners get wrong, drastically reducing the progress made during their marathon 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 marathon training: Easy Runs, Progression 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 **8-10km** as part of these sessions, followed by several quick strides at the end of the run. 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 **2½-3 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**. 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 in on the next page.



20g Protein
20g Carbohydrate (CHO)

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

2.5 hours before

0 mins

20 mins

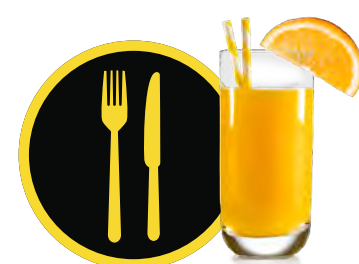
40 mins

60 mins

30 mins post

START

END



250g cooked brown rice
+ 100g grilled chicken breast
+ 200g grated beetroot
+ 250ml orange juice



+500ml water

SIP THROUGHOUT RUN



1 x REGO CLEAR
RECOVERY serving

FUELLING THE TEMPO RUNS

Tempo Runs are key for building your body's ability to run faster for longer. During these runs you will switch between running at a low pace and a comfortably high pace (between marathon and intervals pace) for several kilometres and you will run in total 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.



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

3 hours before

0 mins

20 mins

40 mins

70 mins

30 mins post

START

END



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

1 x GO Energy

🚰 + 500ml water



+22g
CHO

GO Isotonic
Energy Gel

🚰 +150ml water



+22g
CHO

GO Energy
+ Caffeine Gel

🚰 +200ml water



+22g
CHO

GO Isotonic
Energy Gel

🚰 +150ml water



+20g
CHO

1 x REGO CLEAR
RECOVERY serving

FUELLING THE PROGRESSION RUNS

Progression Runs are crucial in teaching you how to push harder once fatigue kicks in, simulating how you are going to feel in the later stages of the race. During these runs you will start off by running several km at an easy pace, followed by running at your marathon pace, and last, running at your tempo pace. During these sessions you will run usually **between 10-11km** in total.

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 Progression Runs is shown on the next page.

47g of carbohydrate
per serving



FUELLING THE PROGRESSION 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

3 hours before

0 mins

20 mins

40 mins

70 mins

30 mins post

START

END



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

1 x GO Energy
+ 500ml water



+22g
CHO

GO Isotonic
Energy Gel

+150ml water



+22g
CHO

GO Energy
+ Caffeine Gel

+200ml water



+22g
CHO

GO Isotonic
Energy Gel

+150ml water



+20g
CHO

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 (**2-5 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 in on the next page.

75mg caffeine

22g carbohydrate (CHO)



FUELLING THE SPEED RUNS

FUELLING STRATEGY PROVIDING:

PRE-RUN:

PROVIDING 150g CARBOHYDRATE (CHO)

DURING THE RUN:

60g CARBOHYDRATE (CHO)

500ml FLUIDS

75mg CAFFEINE

POST RUN:

20g PROTEIN

20g CARBOHYDRATE (CHO) POST-RUN

2.5 hours before

15 mins before

0 mins

20 mins

40 mins

60 mins

30 mins post

START

END



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

1 x GO Energy

🚰 + 500ml water



+22g
CHO
GO Energy
+ Caffeine Gel



+22g
CHO
GO Isotonic
Energy Gel
🚰 +150ml water



+22g
CHO
GO Energy
+ Caffeine Gel
🚰 +150ml water



+22g
CHO
GO Isotonic
Energy Gel
🚰 +150ml water



+20g
CHO
1 x REGO CLEAR
RECOVERY serving

FUELLING THE LONG RUNS

Long Runs are crucial for building your endurance capacity and preparing you physically and mentally for the marathon race. You will usually run between **29-37km** at a various paces 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.

You should start to fuel these runs on the day before by implementing a carbohydrate loading protocol. It is recommended to consume a total daily carbohydrate intake of **10-12g/kg body mass** on this day to maximise your glycogen stores. A fuelling guide to support your carbohydrate loading plan is shown in on the next page.

On the day of the Long Run, you should aim to consume a meal containing **3g/kg body mass** of easily digestible carbohydrate around **3 hours in advance**. Furthermore, as our liver glycogen stores are **reduced by around 50%** when we sleep overnight, and the majority of the 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 duration of these runs (**>2 hours**), it is recommended that during the run you consume between **60-90g per hour** of dual-source carbohydrate. You should also focus on consuming **500-600ml of water per hour**. Post-run, it is important that you consume a large serving of carbohydrates (**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 pages .

80g Carbohydrate (CHO)
per portion



CARBOHYDRATE LOADING FOR THE LONG RUNS

CARBOHYDRATE LOADING PROTOCOL, PROVIDING:

785g CARBOHYDRATE (~10g/kg OF BODY WEIGHT FOR AN 80kg RUNNER)

SERVING SIZES NEED TO BE ADJUSTED BASED ON YOUR INDIVIDUAL BODY WEIGHT

Breakfast



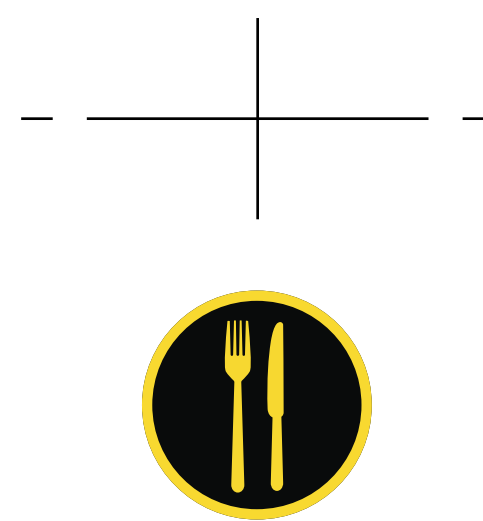
250ml milk+ 80g puffed rice cereal
1 banana
1 X BETA Fuel Drink

Mid-morning snack



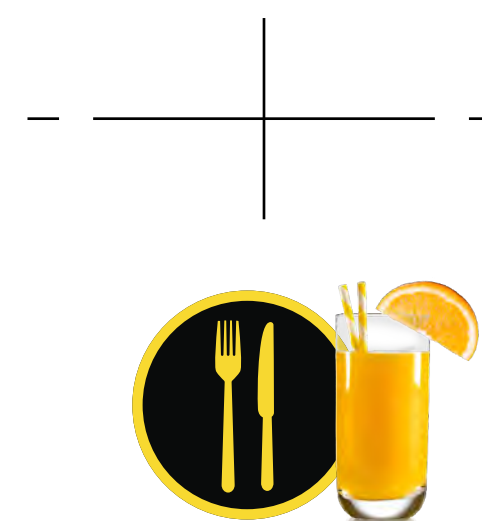
1 X BETA
Fuel Chew
🔥 + 300ml orange juice

Lunch



One large baguette + handful spinach
30g fresh mozzarella
30g low-fat ham
couple cherry tomatoes
1 X BETA Fuel Drink

Mid-afternoon snack



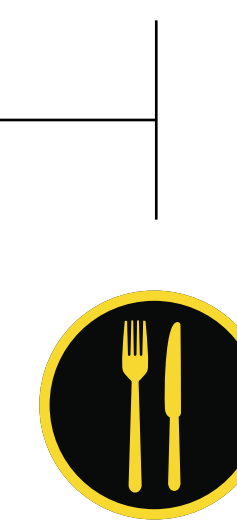
300g rice pudding
one spoon of honey
🔥 + 300ml orange juice

Dinner



300g boiled rice
+ 100g grilled salmon
1 X BETA Fuel Drink

Pre-bed snack



250g grapes

FUELLING THE LONG RUNS

FUELLING STRATEGY PROVIDING:

PRE-RUN:

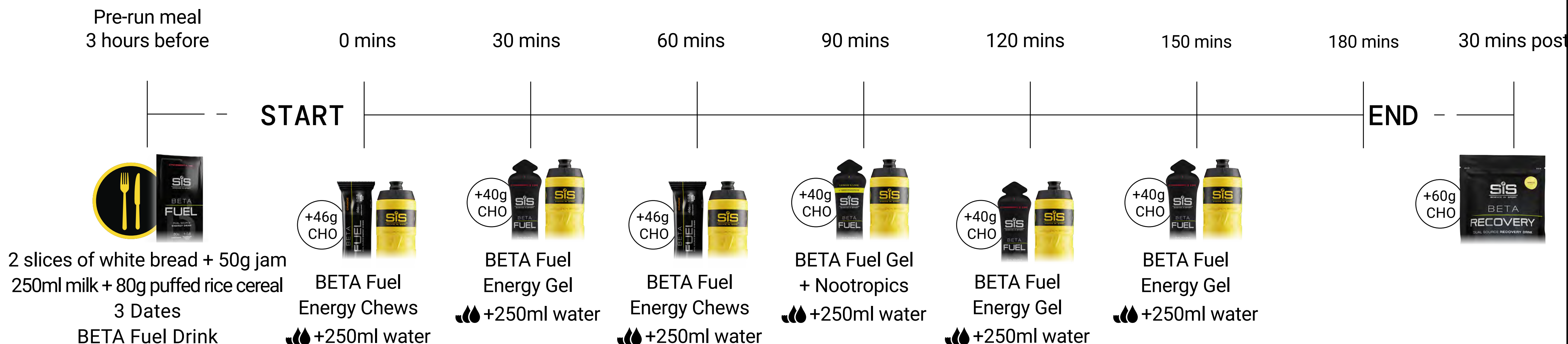
PROVIDING 230g CARBOHYDRATE (CHO)

DURING THE RUN:

85g OF DUAL-SOURCE CARBOHYDRATE (CHO)
AND 500ml FLUIDS PER HOUR,
200mg CAFFEINE IN TOTAL

POST RUN:

60g CARBOHYDRATE (CHO)
30g PROTEIN



FUELLING THE MARATHON

The marathon represents one of the most physically demanding endurance events. After months of training and preparation, the final week of marathon 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 marathon 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 worse still, the difference between a personal best and failing to finish. 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.



FUELLING THE MARATHON

For most club runners, the target finishing time is likely **between 3 and 4 hours**, equivalent to a running speed of **between 10 and 14km/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 **2.5-3.5g per minute**. This could result in a total carbohydrate use **between 500 and 600g**.

Because our body can typically only store around **500g of carbohydrate** (stored as “glycogen”), it is essential that we complete **at least 2 days of a carbohydrate loading** diet to maximise our muscle glycogen stores before the race. Studies have consistently shown that runners do not eat enough carbohydrate in the days before the race, meaning that runners would arrive on the start line with sub-optimal glycogen stores and that 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. This can result in the well-known phenomenon of “hitting the wall”, which runners often report **around mile 16-20** and that tends to coincide with when your glycogen stores are becoming depleted. However, if you carbohydrate load correctly in the days before the race, you will improve your ability to maintain your target race pace and improve your overall finish time.

To maximise glycogen stores before the race, it is recommended to consume a total daily carbohydrate intake of **10-12g/kg body mass** for at least two days 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 carbohydrates 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 THE MARATHON

CARBOHYDRATE LOADING PROTOCOL, PROVIDING:

785g CARBOHYDRATE (~10g/kg OF BODY WEIGHT FOR AN 80kg RUNNER)

SERVING SIZES NEED TO BE ADJUSTED BASED ON YOUR INDIVIDUAL BODY WEIGHT

Breakfast



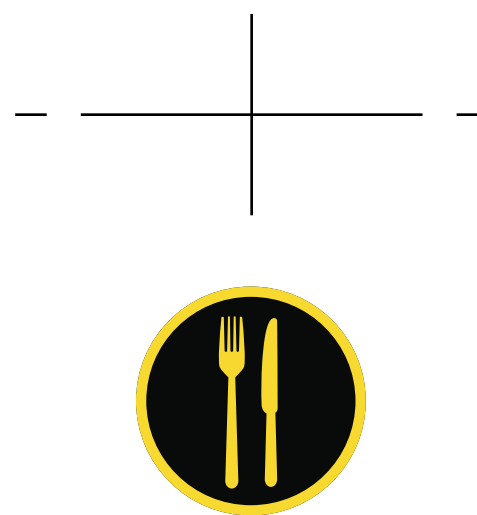
250ml milk+ 80g puffed rice cereal
1 banana
1 X BETA Fuel Drink

Mid-morning snack



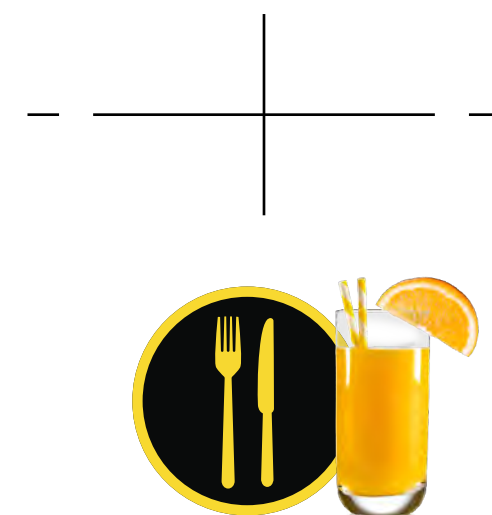
1 X BETA
Fuel Chew
🔥 + 300ml orange juice

Lunch



One large baguette + handful spinach
30g fresh mozzarella
30g low-fat ham
couple cherry tomatoes
1 X BETA Fuel Drink

Mid-afternoon snack



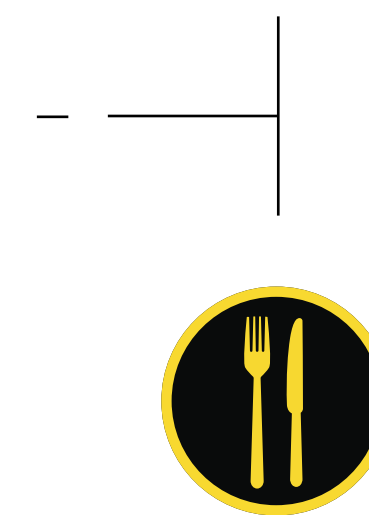
300g rice pudding
one spoon of honey
🔥 + 300ml orange juice

Dinner



300g boiled rice
+ 100g grilled salmon
1 X BETA Fuel Drink

Pre-bed snack



250g grapes

THE PRE-RACE MEAL

Having correctly carbohydrate loaded (i.e. optimising muscle glycogen storage) in the two days 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.

46g carbohydrate (CHO)



PRE-RACE MEAL

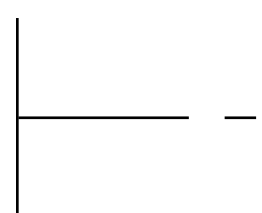
PRE-RACE MEAL PROVIDING:

PRE-RUN:

232g CARBOHYDRATE (~3g/kg OF BODY WEIGHT FOR AN 80kg RUNNER)

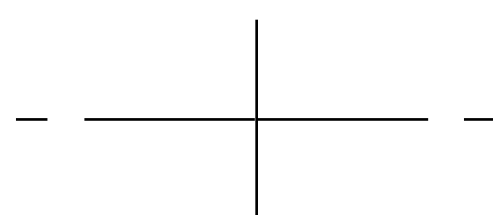
SERVING SIZES NEED TO BE ADJUSTED BASED ON YOUR INDIVIDUAL BODY WEIGHT.

Pre-race meal
3 hours before

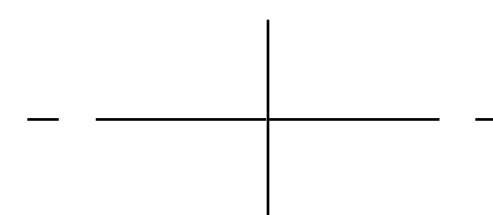


2 slices of white bread + 50g jam
250ml milk + 80g puffed rice cereal
3 Dates
1 × BETA Fuel Drink

2hrs before the race

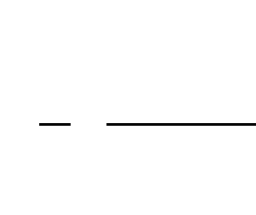


1 hour before the race



BETA Fuel
Energy Chews
+300ml water

Marathon start



FUELLING DURING THE RACE

Even when you have carbohydrate loaded correctly and consumed a carbohydrate rich pre-race meal, the total amount of carbohydrates that you burn during the race will be greater than what your muscles and liver store.

For this reason, it is critical to also consume carbohydrates during the race at a rate that is at least equivalent to **80-120g per hour**, and from dual-source formulations comprising both maltodextrin and fructose.

This because dual source formulations increase the amount of carbohydrate that can be digested, absorbed and burned by our muscles over and above that of using single source formulations. This fuelling target can be achieved from a mixture of drinks, gels and even solids, though it is recommended that your race day fuelling plan is practised during long training runs rather first trying on race day.

Within the SiS product range, this could incorporate the SiS BETA Fuel range, where drinks, gels and energy chews can all support your fuelling targets.

A fuelling guide to support in-race fuelling of **80-120g per hour** is shown on the next page.

40g carbohydrate (CHO)



FUELLING DURING THE RACE (85G CARBOHYDRATE PER HOUR)

FUELLING STRATEGY PROVIDING:

85g OF DUAL-SOURCE CARBOHYDRATE (CHO) AND 500ml FLUIDS PER HOUR
AND 400mg CAFFEINE IN TOTAL

