

HALF MARATHON GUIDE

#FUELEDBYSCIENCE

TRAINING NUTRITION

All you need to know about your nutritional needs before, during and after a half-marathon. Running a half marathon is demanding and a must for those with the goal of completing a full marathon. For these runners, or those who are looking to increase their PB, nutrition plays a pivotal part in endurance performance and can be the difference between a good and a great time. When training for a half marathon, there will be numerous training runs that last under 90 minutes where you can usually rely on taking on an electrolyte drink and 1-2 energy gels. However, running 13.1 miles will be different for many people and require an increase in intensity for the desired performance outcome. For this reason, it is important to get accustomed to your race day nutrition:

• MORNING FUEL

Your breakfast will be one of the most important meals you consume and will ensure you are fully fueled when you cross the start line, so make sure you are comfortable with it and it works for you.

• CARBOHYDRATE INTAKE

Fuel for the work required throughout your training weeks. During short or low intense sessions, reduce carbohydrate intake. However, it's important to practice your race-day fueling plan during longer sessions, so that your body adapts to the work. Here, you should practice taking in 60-90g of carbohydrate per hour.

• ON THE GO FEEDING

Fueling while running is key, so get confident at consuming fluid and gels whilst running at pace.

• SWEAT RATE

How much you sweat will dictate how much fluid you need to take-in. Aim to not lose any more than 2-3% of your body mass to maintain hydration and be ready to train the next day. Weighing yourself before and after your run can help you understand this.

• **RECOVERY**

The faster you recover, the better quality your training will be and the more adaptations you will get. See the Post Training/Racing: Recovery section at the end of the guide for more information.

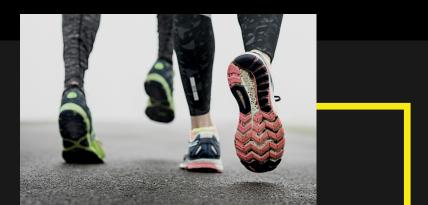


BELOW IS AN EXAMPLE NUTRITION GUIDE TO FOLLOW AROUND YOUR TRAINING.

PRE TRAINING

PHYSIOLOGICAL EFFECTS

HYDRATION	Ensure you are fully hydrated. Drink 17 –34 oz of fluid in the 1-3 hours prior to your training. Use GO Electrolyte or GO Hydro to increase fluid retention.	Work out how much you are sweating (per hour). Try not to lose more than 2-3% of your body mass through sweating. For longer sessions over 1 hour, run a circuit that stops by your house. This will allow you to rehydrate. Use GO Hydro and/ or GO Electrolyte to replace electrolytes lost through sweat.
ENERGY	When preparing for a run over 10km increase carbohydrate the day before. Use GO Energy between meals to increase glycogen stores, practicing for pre race carbohydrate loading.	Focus on electrolyte and fluid intake for shorter runs. For longer runs, aim o take on 60-90g of carbohydrate per hour. This can come from 3* GO Isotonic Gels or a combination of GO products. Find the ones that work for you!
RECOVERY	N/A	Ensure that you rest well between runs as this is where adaptations take place. Overtraining is common in endurance runners. Aim to get the same amount of sleep each night throughout your training period.
CAFFEINE	A pre training GO Caffeine Shot can help decrease your perception of fatigue and increase concentration during your runs. Take 30 minutes before your session.	N/A



RACE DAY NUTRITION

Always make sure that you practice your full race day nutrition routine well before race day itself. Follow these tips, guidelines, and examples and smash your PB!

CARBOHYDRATE LOADING

Our muscles can store up to 400-500g or around 2000kcal of glycogen to be used as energy. Glycogen is the main fuel you will use during your race and is stored when you consume carbohydrate. Unlike longer races, half marathon 'carbohydrate loading' should focus on increasing carbohydrate intake in the 24 hours before

the race and the pre-race breakfast. Unlike traditional 'carbohydrate loading', you don't necessarily need to increase carbohydrate intake in the 48 hours before the race, but aim for 1.4 - 2.3 g of carbohydrate per lb of your body mass the night before as shown below.

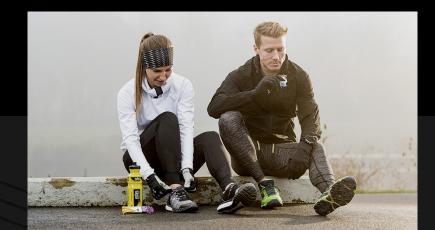
BREAKFAST

Have breakfast 2-3 hours before the race. This should be part of your 'carbohydrate loading' regime as your glycogen stores decrease over night. This should involve normal breakfast foods with around 0.5 - 1.4 grams of carbohydrate per lb of body mass as shown below:

DINNER (NIGHT BEFORE)

BREAKFAST

300g spaghetti
100g chopped tomatoes
2-3 slices of garlic bread
17 oz GO Energy
300g low-fat yogurt mixed berries
2 slices toast with jam
1 small bowl of cereal
9 oz fresh orange juice



HYDRATION

Pre race hydration is key. Aim to drink 17 - 3 4 oz of fluid in the build up to the race, ideally 17 oz with breakfast and 17 oz in the build up to the event. Don't drink just water,

GO Electrolyte or GO Hydro can increase fluid absorption and retention (4), meaning there will be fewer stops for the toilet during the race.

DURING RACE

HYDRATION	 Aim not to lose more than 2-3% of your body mass throughout the event. This usually means consuming 17 oz of fluid per hour depending on sweat rate and environmental conditions. Rehydrate using an electrolyte drink: GO Hydro provides a precise 30 mmol/L of Sodium, which will help retain the fluid. 	
ENERGY	 Focus should be on hydration and carbohydrate intake. After 20 minutes of the race, aim to take on around 60g carbohydrate per hour. This can be achieved through food and fluid sources; energy bars and/or energy gels. Along with appropriate hydration and fluid intake, this could come from: 3* GO Isotonic Energy Gels or 1* 17 oz GO Electrolyte & 2* GO Isotonic Energy Gels. GO Isotonic Energy gels are preferred by runners as they easily carried in a race belt and do not require fluid for easy digestion. 	
CAFFEINE	 A GO Caffeine Shot consumed just before you start may increase concentration and endurance performance. 	



POST-TRAINING/ RACING: RECOVERY

After training or competition, the body will be in a state of depletion; to avoid fatigue, reduce the risk of injury and fuel physiological adaptations it is important to recover well by refueling and getting enough rest. Follow these key considerations and go again!

• Your metabolism stays lifted for around 30-60 minutes post-exercise, so it is important to replace carbohydrates and provide protein and electrolytes within this time. REGO Rapid Recovery provides the body with 23g of carbohydrate, 20g of protein and 1g of salt, which is what the body needs to adapt and recover after training and competition.

• For lighter training sessions under 60 minutes, you may not need to 'rapidly replace' carbohydrate stores. This could be done with a carbohydrate meal. However, having a WHEY20 on hand can conveniently help you hit the goal of 20-25g of protein every 3-4 hours.

• Replacing fluids after you run is important to maintain fluid balance, absorb carbohydrate and help our heart to return to its resting rate. Replacing 150% of the fluid lost during training runs and competition can complement your nutrition strategy of appropriate carbohydrate and protein intake.

• During sleep is when most of your growth and rebuild of tissues is done, including lean muscle tissue. Try to get the same amount of sleep each night in the build up to the race. Overnight Protein can help you rebuild and prevent muscle breakdown by slowly releasing a steady stream of amino acids as you sleep.



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GOOD LUCK!





Jess Woods - Nike Run Club Coach

I spend hours on my feet as both a running coach and an ultra marathon athlete in training, so my motto has always been to run hard and recover harder. When following a comprehensive running guide, in my experience nutrition is more important than the workout itself and Science in Sport's comprehensive nutrition range helps fuel before, during and after my sessions.

All nutritional advice in this Marathon Training Guide has been provided by Ted Munson, Performance Nutritionist at Science in Sport



Ted is the Performance Nutritionist at Science in Sport. He comes from a sports science background having worked in elite sport for the past five years, having completed his MSc in Nutrition and physiology, focusing on hydration markers in elite athletes. Ted has worked with athletes in football, rugby and tennis, most recently with Hull City FC as a sports scientist. He continues to provide nutritional support to a wide range of elite athletes.

Got any more running nutrition questions? Email **nutrition@scienceinsport.com** and a Science in Sport 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, as well as Team Sky, British Cycling and USA Cycling, ensure Science in Sport continues to innovate and improve our existing range of trusted endurance nutrition products. Our passion means our products are truly trusted and recommended. Science in Sport 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. Science in Sport or the author cannot be held responsible for illness arising out of the failure to seek medical advice from a doctor.



Science in Sport is the official energy gel supplier for Rock'n'Roll marathons.