Half Marathon Training Guide

Written in partnership with leading personal trainer and author of "The Marathon and Half Marathon: A Training Guide" - Graeme Hilditch
A Note From the Author

It is now nearly 10 years ago since the first fitFAQS Charity running training guide went into circulation.

In these 10 years, the guides have evolved from being a solitary 15 page guide on how to train for a marathon to a series of 3 highly informative training guides, helping runners of all abilities train for 10k, half marathon and marathon events.

In this recent update, the guides have had a major face-lift and now include even more comprehensive & interactive training, injury and nutritional information - all in a style which is attractively presented and easy to understand.

As the author of 3 leading running books, including the second edition of the UK's best-selling endurance running books "The Marathon and Half Marathon: A Training Guide," I am confident that you will find all the information in this guide an invaluable resource on your journey to train for, and compete in your half marathon event.

However, please note that this guide does not cover everything you need to know about training. There are many more aspects of training, nutrition and particularly injury prevention which you should read about in order to get the most out of training and give yourself the best chance of staying injury free.

So, although this guide is a very good start, for a comprehensive guide ideal for bedtime reading, I strongly suggest you buy my book which is available as a paperback or as an ebook.

BBC newsreader and prolific marathon runner Sophie Raworth ranked the books as one of her top reads and said "

“I love this book – it’s really practical and helpful and I’m often flicking through it!”

I hope you enjoy your upcoming weeks of training. The journey ahead is not going to be easy, but trust me, when you cross that finishing line, you’ll not regret doing it for one moment.
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What have I Done?

Right now, you may be going through a series of emotions.

There’s a good chance that you’ve been toying with the idea of signing up for a half marathon for a few months (or even years) and the fact that you’re reading this means that you have taken your first significant step towards that goal of running 13.1 glorious miles.

When it comes to committing yourself to a half marathon, talking is cheap but taking this huge step to get your hands on a fitFAQS training guide shows that the talking is now over and you’re ready to take on this amazing challenge. So bring it on!!

Whether you are a complete newcomer to the world of running or moving up a distance from a 10k, this guide will help you every step of the way and make sure your mind, body and soul are well prepared for the big race in a few months time.

This training guide has been written in such a way that you can easily dip in and out of it as and when you need help and advice on your training. The training plans at the back of the guide can be printed out and stuck on your fridge if you wish and the rest of the guide saved on your PC or tablet and accessed whenever you like.

Still feeling anxious? Relax

If you are new to exercise of this magnitude and are wondering whether you have got it in you to see this challenge through, I have learnt one definitive fact from helping people train for such events that always rings true:

“If you have the desire, the belief and the determination to take this challenge on and raise money for a cause you believe in passionately, then you will find the training and the event itself very enjoyable and one which you will cherish for the rest of your life.”

I have no doubt that now that you have got this far, your mind is firmly set on the task in hand and all that’s now left is to get your heart, lungs and legs in good enough shape to get the most out of what will be an experience of a lifetime

I hope you enjoy this guide and that it gives you a good introduction into how to prepare for your first (or maybe your fastest) half marathon.
On Your Marks!

Now you’re signed up and committed to your race, the first thing you need to do is make sure your body is up to the task ahead – specifically your heart.

Even if you have run recreationally for a few years, now that you are taking a big step up in distance, it’s strongly advised that you take a trip to your GP and get him/her to check your blood pressure.

Even if you feel fit and well, you may have high blood pressure and not know about it – which is why high blood pressure (hypertension) is often referred to as the “silent killer.”

As over dramatic as this sounds, I cannot stress the importance of getting your heart checked out just to make 100% sure that you’re fit and healthy and in good shape to begin training.

Once you are given the green light by your GP, then you can begin thinking about training with confidence that your heart and blood pressure have been checked and your GP is happy for you to proceed.

Even if you have been given the all clear, if you ever feel unwell during training or have chest tightness at any stage, always see your GP to discuss your symptoms.
Get Set!

So, you’re signed up and committed to the race, your GP is happy that your blood pressure and lungs are in good shape and they’re happy for you to begin training – so what’s next?

What to expect?

Whatever your level of ability or experience of running, there’s a good chance that you’ll be feeling a little apprehensive of the training that lies ahead. Although you may be fully committed to the upcoming challenge, negative thoughts can often creep in and ask questions of you and your ability.

- **Will I be able to do this?**
- **What if I fail?**
- **Am I too old to be doing challenges like this?**
- **What if I let myself and my charity down?**

These are just a few of the common questions that your sub-conscious may well ask you as you begin your training but be confident that no matter what negative thoughts enter your mind, you **can** do this and you **will** do this challenge.

Negative thoughts are so normal, from the day you begin training, right up to the day of the race, so do not think that you’re the only one who is questioning your ability to see this through.

If you need a bit of a nudge and a healthy dose of inspiration, take a look at the short video to the right (click the image) whenever you need a lift and see just what is possible if you put your mind to it.

This video is incredibly moving and is essential viewing for anyone undertaking a challenge event who thinks they can’t keep going.
Right, it’s time to get cracking!

Your health has been given the all clear, you’re now highly motivated after watching the video on the amazing achievements and drive of Rick and Dick Hoyt, so all that’s left now is to get a plan in place and tackle this 13.1 mile challenge head on.

The rest of this guide contains all the information you need to get your training underway and ensure you reach the start line well prepared, injury free and fit enough to see the race through from start to finish.

In the coming weeks, you will go through a roller-coaster ride of emotions and this is something you’ll have to come to terms with and accept as part and parcel of the training experience. Some days and weeks you’ll feel amazing and other times you’ll feel tired, heavy legged and down in the dumps.

The best way to see you through your low points is to get the support of your family and friends and let them know that there will be times when you’ll need a bit of TLC and some encouragement to see you through a rough patch. There’ll also be times, when a good old fashioned kick in the derriere might be needed to get you out of that door when you’re just being lazy – I’ll let your nearest and dearest decide when they feel which protocol is required.

So, first things first - let’s take a look at the importance of footwear and how to choose the right shoes for all the miles you’ll be putting in.
Running shoes

Ask any running expert and they will tell you that finding the right pair of running shoes is vital to help you with your race preparations and help avoid injury. However, deciding which is the right shoe is not as easy you may think.

Which shoe is right for you?

Whether you look online or visit the high street, the amount of choice you’ll face is staggering. There are dozens of brands, shapes, colours, sizes and prices, making the decision to choose just the one pair nearly as daunting as the pending weeks of training.

However, there is one fundamental piece of advice you have to follow if you are to give yourself the best possible chance of getting through your training free from niggling joint and muscle pain.

Buying a good pair of shoes that are specifically manufactured to absorb shock from hard surfaces will help to protect your joints and make training a far more enjoyable experience. In my opinion, you need to choose a brand which has a good reputation in manufacturing running shoes and you don’t really need to look any further than Brooks. All they do is make running shoes – they’re THE experts which is why they are market leaders!

Do not underestimate the importance of your running shoes. They can mean the difference between always being injured and staying injury free!
What is a Gait Analysis?

As complicated and scientific as the term “gait analysis” sounds, the principle is actually very simple to understand and the service is often provided absolutely free from reputable running stores.

Put simply, your running gait is the way you run and ultimately how your legs and feet act when they hit the ground and propel you forwards as you progress through your running stride. There are dozens of reasons why our feet land differently when we run, but in order to safeguard against injury, it is essential that you find out what type of running gait you have and buy the appropriate running shoes to complement it.

There are a number of ways to have your gait analysed but by far the most common and accurate is by a video analysis, where you are filmed (from behind) running on a treadmill. The video will show one of three things happening when your feet hit the floor - whether you are a neutral, runner or a under-pronator or over-pronator.

- **Neutral runner**: your running stride is perfect and you have every right to feel smug. You are the envy of most runners, and less likely to pick up niggling injuries.

- **Over-pronator**: your feet ‘roll over’ excessively during your running stride and you’ll need shoes to provide support to counter this.

- **Under-pronator**: although you are the rarest breed of runner, you run more on the outside of your feet and will be recommended trainers to counteract this.
Choosing a Running Shoe

Based on the results of your running gait assessment, you will be given a choice of trainers to choose from and all you have to do is select the shoe that feels the most comfortable and suits your budget.

Based on the results of your running gait assessment, you will be given a choice of trainers to choose from and all you have to do is select the shoe that feels the most comfortable and suits your budget.

The choice might still be overwhelming, but the advice I have offered my clients over the years on choosing trainers is simple: choose a pair of running shoes that are not only comfortable but are also made by a specialist running shoe manufacturer.

As previously mentioned, the running Company Brooks, manufacture incredibly high quality and good value running shoes so if you are going to spend the next few months pounding the streets, you need to know that the shoes you are wearing have been made by a reputable company and that they’re not going to fall apart on you after just a few weeks.

See if there is a reputable running store such as Up and Running near you, who will offer shoe advice and a Gait Analysis free of charge.
Got a running question? #askGraeme!

• Q: How much fluid should I drink before a run and when should I drink it?

• Q: Is stretching really that important to help prevent injuries?

• Q: I’ve got a race in a few weeks, but I’ve just caught a horrible cold. Can I still train / race?

Want to know the answer to these common questions and a whole load more?

Visit the Brooks website and check out the #askgraeme pages
Running Clothes

If you are one of the many thousands of new runners who, on entering an event, has raided their wardrobe and discovered that their current selection of running kit is bordering on being classed as fancy dress, it’s probably time to invest in some new gear. A casual jog around the park can easily be done in cheap “cotton” running clothes, but when the miles begin creeping up you’ll find that cheap running clothes get very uncomfortable very quickly.

As with any other pastime or sport, it’s very easy to be seduced by the big brand names, all trying to convince you to buy their new special tops/trousers and socks etc., but ultimately the most important consideration is whether the clothes fit properly and are going to be suitable for time of year you’re going to be training.

What’s the difference?

As tempting as it might be to try and get away with wearing some old tracksuit bottoms and an old t-shirt, the main advantage that running clothes have is their ability to evaporate sweat away from the body, keeping you cool and comfortable for the duration of your run.

Cotton clothing holds on to moisture and will over time not only cause it to become heavy with sweat but also irritate the skin as the course damp cotton fibres rub on the sensitive skin under your arms and well you know........down there. #ouch
Running Clothes

There are several things you need to consider when buying running clothes so before you dive in headfirst and buy the latest “big brand” underlayer, thermal trousers and gillet, read the next few pages to make sure you spend your money wisely.

It is very easy to spend a lot of money very quickly when you first begin kitting out your running wardrobe, so always keep an eye out for deals and “end of season” clothes. Some may be inappropriate or not available in your size, but “end of season” or “stock clearance” clothing can be picked up at bargain prices.

The key factor you have to consider when kitting yourself out is to determine what time of year you’ll be doing most of your training and therefore what are the expected conditions.

The next few pages have been split up into two sections – Spring, Summer and Autumn, Winter so you can easily refer to the time of year you’ll be training in and what clothing you need to consider buying.

Assuming you keep running after the event, you’ll of course need to kit yourself out for different conditions, so invite your bank manager around for dinner – you’ll need him on your side!

The Great North Run always takes place in the early autumn, so it’s likely that you’ll need a vest and shorts - it could be warm!
Spring and Summer Running Clothes

Tops

When the temperature increases, so does your rate of perspiration and it’s vital that you wear clothing that keep your body cool. This will not only make you feel more comfortable whilst training but also reduce the amount of water you lose through sweat.

Vests – Are very popular choices as they keep the arms free, and keep you very cool. Be aware however that if the sun is shining or UV levels are high, you’ll need to slop on some spf 15 to protect your skin (particularly shoulders) from the risk of sunburn.

T-shirts – Are also commonly used and most leading brands will manufacture t-shirts that are incredibly well vented so they keep you both cool and protected from harmful UV light. Make sure they fit well, especially under the arms where they can cause rubbing and friction if you are wearing the wrong size.

Long Sleeve tops – Are popular on mild days when there is a stiff breeze, which can make you feel a bit chilly if you’re just in a vest or t-shirt.
Spring and Summer Clothes Contd....

Bottoms

When it comes to what to wear on your bottom half, warm weather options are more often a case of individual preference. Some runners hate wearing shorts and would prefer to wear trousers as they are simply not confident flashing their bare fleshe[d pins] to everyone. Although shorts are the best choice, fabrics for trousers these days are so good that heat and sweat is dispersed away from the body incredibly efficiently.

Trousers – There are a wide range of trousers available for warm conditions ranging from full length ones to ¾ length ones. Again, personal preference and comfort should ultimately guide you but make sure they fit well. Too loose and they’ll migrate south as you run, too tight and they’ll rub in places you’d rather they didn’t! Compression trousers such as skins are all the rage too, with mixed evidence whether they do actually enhance your performance by reducing muscle vibration and enhancing blood flow.

Shorts – From compression shorts to “lined” racing shorts, there is something for everyone in this department so take your time to choose wisely. Some brands/makes have pockets for you to put keys or ipods in, but with the popularity of “armbands” to carry such things, these days pockets are becoming a rarity. Fit is vital, so follow guidelines and choose a size which will give you optimum comfort.

Compression shorts – Often worn underneath running trousers, compression shorts (particularly for men) keep “everything in place” and ensure you can run in comfort. Some runners will choose to wear just compression shorts in races or on hot days – that’s of course your choice though!
Autumn & Winter Clothing

Tops - underlayers and outerwear

**Baselayer** - A baselayer is a tight top which is highly effective at keeping you warm whilst at the same time wicking sweat away from your skin quickly, so that you can avoid the wind causing a chill. They are very comfortable to wear and strongly recommended in cooler and/or windy conditions.

**Long Sleeve Top** - If conditions are not too cold or wet (such as autumn), a long sleeve top with or without an under layer may be sufficient to see you comfortably through a training run. Although not as figure hugging as an underlayer, long sleeve tops can be tight or lose and soft to touch making them incredibly comfortable to wear. Also efficient at wicking away moisture from the body, you should have at least one base layer in your running wardrobe.

**Outerwear** - More insulating and weather resistant tops than long sleeve tops, are a variety of outwear tops. These often offer high levels of breathability, wind resistance and sometimes water resistance (but not suitable for heavy sustained rain). If it’s fairly dry, then this is the last of the layers you need in cool wintery conditions – if it’s wet however, then you’ll need to replace this top with one which offers good waterproofing.
Autumn & Winter Clothing Contd.....

Waterproof & Windproof Jacket

Regardless of the time of year you’re running, sadly there are going to be days when it’s pouring with rain and your schedule is telling you that you’ve got to take on a long run. Running in the rain is not as bad as you think and after a while you actually forget about it – especially if you are wearing the right clothes.

Waterproof running jackets can be a worthwhile investment to keep you dry, but make sure they are lightweight and fit well. Different jackets (at varying budgets) have a range of features such as wind proofing properties, high levels of breathability and pocket to keep your ipod, money and keys away from the rain.

Choose wisely – but above all choose one! We live in the UK – it’s going to rain on you at some point!

If you anticipate running at night, popular brands make a very good range of high visibility waterproof jackets, which are highly reflective and visible when running in low light. Whether it’s neon yellow, green or pink – there’s often a bright waterproof jacket to suit everyone’s taste.
Winter Trousers

If you want to wear shorts on those long, wet cold winter days then by all means be my guest, but I’m guessing that the overwhelming majority of runners would rather opt for a more comfortable pair of trousers or “running tights”

The choice available for trousers is fairly narrow when it comes to winter running. The only slight variance is that in very cold conditions, running trousers are available with a thermal inner, which keeps your legs warm for the duration of your run.

As useful as thermal trousers are, there is a risk that your legs can get too warm and you can end up sweating excessively - making your long run in the cold pretty uncomfortable.

Most winter running trousers have a small pocket (usually at the back above the bum) where you can store your keys, cash or ipod but overall high quality trousers are seamless, incredibly comfortable and a joy to run in when the days are short and the air is cold.
Wet weather Shoes

If a lot of your training will be over the wet weeks of the winter or autumn, then giving a thought to your footwear might help you keep your feet dry.

Although most road surfaces should drain away most of the water and prevent your feet from getting soaked, some roads or surfaces (particularly off road) can get incredibly wet and make your training run pretty uncomfortable if you step in a puddle in the first mile.

After the wet winter we had in 2013-2014 many runners have discovered the joy and comfort that waterproof running shoes can bring when training in horrible conditions.

Made with a "gore tex" membrane, waterproof running shoes prevent any water getting in, leaving your feet bone dry no matter how wet your shoes get? Whether you submerge the shoes in a deep puddle or they simply get sprayed, from general road splash, your feet will be as dry as a bone from the first minute to the last.

If you’re interested in buying a pair or you’d like more information, visit the Brooks website and check out their GTX range.

To see just how effective these running shoes are, take a look at the video below.
Accessories

Once you’ve got your main kit sorted, then you’ve got to start thinking about what accessories you think might come in handy.

Like many things when it comes to running kit, personal preference on running accessories is the key decider as to whether it’s worth spending the money on, but there are some things that will necessary.

Check out the list below and my view on their importance.

**Sunglasses** *(high priority)* - regardless of the time of year you’re running, wearing eye protection on sunny days is essential. In the summer when the sun is strong they’re needed and in the winter when the sun in low in the sky, sunglasses are an essential safety accessory that supersede their “fashion” status.

**Hat / beanie** *(medium priority)* – Some runners find it uncomfortable to run in a hat, but they are very helpful to keep the sun off your head and out of your eyes. In the winter, a beanie hat can help retain heat and keep you warm.

**Ipod/ipod case** *(medium/low priority)* – Very much an individual preference and an option which divides opinion in the running world. Some runners can’t bear the idea of running without music, whilst others enjoy the peace and serenity of running in silence. Care must always be taken when running with headphones as your awareness of traffic and other factors is significantly reduced – so always be careful.

**Water bottle** *(medium/high priority)* – If you are running long distances, even in moderate heat, it is essential that you replace lost fluids (see nutrition chapter). If you are unable to drop water bottles at set places on your planned route, then you must carry the water/sports drink with you in a special running bottle.

Alternative options for rehydrating include bottles which can be stored in special “bottle belts” attached around the waist or even “camel packs” which are large backpacks which can carry 2 litres of fluid. These are not recommended unless you are either an experienced runner or you plan on covering very large distances in warm/hot conditions.
Heart rate monitors

Before smart phones came into existence, the only way you could keep track of your heart rate whilst running was by using a chest strap and a watch which picked up the heart rate signal.

Although this form of heart rate monitoring remains the most convenient way to monitor your heart rate, if you’re on a budget, then all you need to do is buy a heart rate strap (£50), download one of a dozen or so apps and hey presto, you can monitor your heart rate via your smart phone.

Putting the technical aspect of heart rate monitoring to one side for a moment if you are new to running, you may be wondering why the need to monitor your heart rate at all whilst training. What does it matter what your heart is doing?

**It matters big time** - and once you know how to monitor it properly you’ll soon notice just how important it can be to help improve your fitness and give you peace of mind that you are not running too slowly or too fast.

**Working out your maximum heart rate**

Before you can monitor your heart rate effectively, you first need to work out what your maximum possible heart rate is.

The formula to work this out used to be 220 minus your age, however, this has been found to be quite inaccurate, particularly for women. So, as a rough guide use the following formula:

**For men**

\[ 220 - \text{age} = \text{maximum HR} \]

Eg. If you’re 40:

\[ 220 - 40 = \text{Max HR of 180} \]

**For women**

\[ 226 - \text{age} = \text{maximum HR} \]

Eg. If you’re 40:

\[ 226 - 40 = \text{Max HR of 186} \]
Train Smarter - Not harder

Once you know your maximum possible heart rate, you are now in a position to learn how hard you need to push yourself on certain types of training run.

Although we’ll cover the different types of training later on, to give you a rough idea how hard your heart should be working whilst out running, first you need to work out which "training zone" you should be in when undertaking certain types of run.

It’s worth saying at this juncture that heart rate training is not always the same for everyone, as some people are able to train at different intensities for different lengths of time. This can be due to a variety of factors such as fitness levels, gender and individual genetics.

So, although the following information is generally accurate, please be aware that some of you may not function well in the following zones and may need to adjust the heart rate zones accordingly.

**Long Run heart rate – 70-80% HRM**

For your long, slow runs which are usually done on the weekend, you should try to keep your heart rate at about 70-80% of your heart rate max (HRM)

So, if you’re a 40 year woman, you can work it out as:

\[
226 - 40 = 186 \\
186 \times 70\% = 130 \quad 186 \times 80\% = 149
\]

Therefore you should try to keep your heart rate:
Above 130 but below 149.
**Tempo Run heart rate – 80-85% HRM**

For a faster training run, such as a “Tempo” Training run which helps encourage the body to be able to tolerate running at a faster pace, you need to train in a higher heart rate zone.

It’s harder than a long, slow run pace but not so exhausting that you have had enough after 5 minutes. So if we use the previous example of a 40 year old woman your heart rate can be calculated like this........

\[
226 - 40 = 186
\]

\[
186 \times 80\% = 149 \quad 186 \times 85\% = 158
\]

Therefore you should try to keep your heart rate:
Above 149 but below 158.

“The zones for tempo running can vary hugely, so if you feel you can handle running at a higher intensity, feel free to adjust the zones to suit your heart and your ability”
**Interval Training – 85-90+% HRM**

For tough, high intensity sessions such as kilometre or mile repeats, you should be looking to get your heart rate up to the 85-90+% bracket.

These sessions are tough going and it may take you a while to build up a good enough level of fitness to be able to tolerate them, so don’t rush. Some people may be able to tolerate a heart rate of up to 95% in the final stages of these sessions, but do not go out purposely to see how high you can get it – always run within your ability.

So, if you are a *40 year old man*, you can work it out as:

\[ \text{220} - \text{40} = \text{180} \]

\[
\begin{align*}
180 \times 85\% &= 153 \\
180 \times 90\% &= 162+
\end{align*}
\]

Therefore you should try to keep your heart rate: Above 153 but below 162.
Your heart - your rules

As beneficial as heart rate monitors are, training in tune with your heart is tricky to do well and it can take several weeks before you are familiar with how your heart responds to training and if your training zones need adjusting.

Stick with it though and you’ll never want to head out for a run without a heart monitor ever again. When you get familiar with your training heart rate and how beneficial it is, you’ll feel naked without one so make sure you always have it to hand whenever you head out of that front door

Ready to get cracking?

Hold on for a second - take a look at the following tips on how to get the most out of heart rate training.

- **True maximum heart rate** - The “226 or 220 minus your age” formula to work out your HR max can sometimes be inaccurate, so a “true HR max test” is often required. There are several ways to find out your true maximum heart rate but the safest way is under the guidance of a qualified personal trainer, as you need to push yourself to your limit of physical exhaustion.

- **It’s your heart** - Copying someone else’s heart rate and working in similar zones may be tempting, but it must be avoided. Comparing your training heart rate to someone else’s is like comparing personality types – they are likely to be very different. Even if you are the same age as a running buddy, there is every chance that their heart rate at a steady pace could be 140 and yours 160 – despite you both running at the same intensity! It’s your heart – train in tune with it!

- **Resting Heart rate** - Your resting heart rate is a fantastic indicator of your fitness level. When you first begin training, make a note of your resting heart rate first thing in the morning (when still in bed) and re-test it after a few weeks. You’ll find that it will get lower the fitter you get, which is a great comfort, knowing that all your hard work is worth it. However – if you find that your resting heart rate is higher than normal it may indicate that you are either over training OR you have a cold on the way. So, either ease back on the miles or grab some Vitamin C.
With the world of technology advancing at an incredible rate, runners these days have a plethora of gadgets and gizmos they can buy to chart their progress and even keep tabs on how well their friends are doing. The explosion of running specific smart phone “GPS tracking” apps in particular, has taken the industry by storm and what was once a luxury accessory for runners is now available to everyone - often for free!

The trouble many new or novice runners have is knowing which gadgets are worth spending their money on and which ones they could do without. It’s quite easy to be seduced into spending £1000 on running gadgets, when in actual fact just £100 worth of tech kit could do just as good a job!

So, to help you decide which gadgets are best for you, take a look at the next few pages and see what you think your hard earned money is worth spending on.
GPS Watches

Once reserved for those runners with fat wallets, GPS running watches can now be bought for a fraction of the price they used to be on the market for.

Although the top brands such as Garmin and Polar sell multi-functional models with all the bells and whistles for upwards of £200, they, along with other brands, also sell GPS watches for under £100.

**Benefits** – Highly accurate data given in real time can tell you your current running speed/pace, average running speed/pace and distance covered. More luxurious models can even give you heart rate data, distance back to where you started, download functionality to your PC/Mac, altitude etc.

**Drawbacks** – Expensive for watches with high functionality and inaccurate in built up/wooded areas.

For a range of models click [here](http://www.fitFAQS.co.uk) and see what suits your training needs and budget.

If you have the money, get a GPS watch with heart rate functionality. Keeping tabs on your heart rate and pace will ensure your training stays on track!
Perhaps the most cost effective form of GPS tracking is by downloading a free running app to your smartphone. For an additional annual fee, you can usually upgrade the app to increase its functionality, but often this isn't necessary and you can get away with the free version.

With the added advantage of being able to purchase a compatible heart rate strap you can also keep an eye (or ear more accurately, as most apps give voice feedback on your pace and heart rate etc. to you every minute or so) on how your heart is tolerating the run.

With such a wide selection to choose from, it’s hard to know which app will suit you, but by choosing one of the most popular ones such as RunKeeper, Runtastic, Strava or Mapmyrun you can’t go far wrong.

**Benefits** – Cheap, (once you have purchased the smartphone) accurate and easy to recall data/stats from previous runs.

**Drawbacks** – Difficult & impractical to view your heart and pace data “on demand” and have to rely on feedback through headphones. Draining on the battery.

If your partner is worried about your whereabouts when running, the **Runtastic app** makes it possible to track you from a computer.
Heart Rate Watches

Although I touched on heart monitors earlier, it’s worth highlighting the fact that not all heart monitors come with GPS technology and set you back £100+

If you are not happy with using a smartphone to monitor your heart rate and want to regularly check what your heart is doing during a workout, then a budget heart monitor is maybe what you are after.

For as little as £30, you can pick up a monitor, which will give you basic data for you to look at during a training run as well as a stopwatch and the time of day. If you’re after a few more functions such as average heart rate for the run, lap timers, link-up ability to your computer and of course GPS, then you’ll have to expect to part with closer to the £100 mark.

**Benefits** – Good value, basic, last forever and convenient.

**Drawbacks** – Cheap versions have limited functionality

If you can, opt for a monitor which has at least a stopwatch function and an average heart rate function.
The Training
The Training
Getting down to Business

This is where we start to get serious.

Once you’ve got the kit and the gadgets, all that’s left now is to get some miles in your legs to get you into race shape.

This prospect however, is when the realisation of what lies ahead can kick in and you start having doubts about your ability to see this challenge through to the end.

If you’re nervous or have a few worries about what lies ahead, just remember RUN!

• **R** – Rest and Recovery are two of the most under-rated aspects of training. Every year, runners put unnecessary pressure on themselves to run too far, too fast and too much which more often than not results in burn-out, injury and ultimately failure to make the start line. Rest and recovery are effectively what makes you fitter – training breaks your body down and it’s during the rest and recovery time that your heart and muscles adapt to the stress and make you fitter and stronger. So, DO NOT forget to rest and recover after hard training.

• **U** – Understand your limits and accept that you are who you are. If you can do this, then you’ll enjoy training so much more and you’ll be able to relax. When it comes to endurance running, there are so many things which are beyond your control, particularly your genetic ability and this is something many runners find difficult to accept. We are all different and have different genetic ability, so if you are finding during training that you can’t hit the splits you had hoped for despite quality training, do not blame yourself but accept you are who you are. If you can do this, you’ll take pressure off yourself and enjoy training far more.

• **N** – Never run on an injury. Never. As tempting as it might be to try and ignore a muscle or tendon niggle, you are likely to make it far worse by running on it and possibly end up missing weeks of training. Injuries ruin runner’s dreams every year, so please don’t be a statistic – get your injury seen to or check your symptoms later on in this guide.
Varying your Training

One of the most common mistakes runners make when training for a long distance race is forgetting – or not bothering – to mix up their training runs.

Performing every training run at the same speed and on the same route may well help to build your endurance up sufficiently to give you the fitness to complete 13.1 miles, but there are several things you can do in training to not only make it a bit more interesting - but more importantly boost your fitness immeasurably, making you a faster and stronger runner.

Keep it Simple

If you have spent some time trawling the internet on how to improve your endurance, there’s a good chance that you may have been overwhelmed with information on the best ways to catapult your fitness to new heights. There are well over a dozen types of training you can do to improve your running fitness, but with just 7 days in the week it’s simply not possible to include them all.

So, in this guide we have decided to keep things nice and simple and we advise you stick to the training sessions we have used with hundreds of runners which we know work – and work incredibly well.
Training Intensity - Get it Right

Getting your training intensity right is not always as easy as you might think.

Many people new to running find it difficult to know how hard they should be pushing themselves in each training session in order to get the right training response and stimulus.

It’s a tricky balance and one which, to a degree, requires a little bit of guess work and a need to “listen to your body” and see how it responds and feels after a series of training runs. The trouble with training intensity is two fold:

**Too easy** – if you don’t push yourself hard enough during a training run, then you will not have stimulated the body sufficiently to adapt to training.

Although this won’t do you any harm or necessarily cause injury, by the same token, it wouldn’t have pushed your heart, lungs and legs hard enough to encourage an adaption. As a result, your fitness will not have been improved as much as it could have done and you have wasted an opportunity to really boost your fitness.

**Too hard** – If you push yourself too hard, either by running too fast, too often or too far on training runs, then you are at risk of overloading the body and over stressing it. Pushing yourself too hard CAN result in injury so it is arguably more important that you are careful not to push yourself too hard.

Excessively hard training sessions can also mean that you suffer from muscle soreness and stiffness for a few days after training, meaning that you may have to miss a training run. If this is the case, there’s a good argument to say that all that hard work in one session was a waste of time if it means you’re under-performing or being forced to miss subsequent sessions.

**Know your “R.P.E”**

A heart rate monitor is the best way to ensure you are training at the right intensity, but if you don’t own one or need a “back-up” guide, then spend a few minutes looking at the next page and get familiar with your “Rate of Perceived Exertion”
Rate of Perceived Exertion

If you don’t own a heart rate monitor, then the next best alternative is to use the scale of “Rate of Perceived Exertion.” This scale is an excellent way to ensure you are performing every training run at the correct intensity.

So, take a look at the table below and get familiar with the different levels of exertion.

Then, when you read the next few pages on the different types of training run you’ll notice an RPE scale next to each one. If you’re unsure what intensity it is, feel free to refer back to this page.

### Rating of Perceived Exertion Chart
(Cardiovascular Endurance)

<table>
<thead>
<tr>
<th>#10</th>
<th>I am dead!!!</th>
</tr>
</thead>
<tbody>
<tr>
<td>#9</td>
<td>I am probably going to die!</td>
</tr>
<tr>
<td>#8</td>
<td>I can grunt in response to your questions and can only keep this pace for a short time period.</td>
</tr>
<tr>
<td>#7</td>
<td>I can still talk but I don’t really want to and I am sweating like a pig!</td>
</tr>
<tr>
<td>#6</td>
<td>I can still talk but I am slightly breathless and definitely sweating.</td>
</tr>
<tr>
<td>#5</td>
<td>I’m just above comfortable, I am sweating more and can talk easily.</td>
</tr>
<tr>
<td>#4</td>
<td>I’m sweating a little, but I feel good and I can carry on a conversation comfortably.</td>
</tr>
<tr>
<td>#3</td>
<td>I am still comfortable, but I’m breathing a bit harder.</td>
</tr>
<tr>
<td>#2</td>
<td>I’m comfortable and I can maintain this pace all day long.</td>
</tr>
<tr>
<td>#1</td>
<td>I’m watching TV and eating bon bons.</td>
</tr>
</tbody>
</table>
**Steady Paced Run**  
(RPE 3-4 or 75-80% HRmax)

A steady pace is just that! A pace which you feel is steady and one which you can maintain for a long time.

Steady paced runs will form a large part of your half marathon training, as this is the pace you should run all of your long weekend runs at, as well as a good chunk of your mid-week runs too.

There is no precise pace which can be labelled to a "steady run", as everyone is different but if you feel comfortable and are able to hold a conversation with someone at this pace without having to gasp for air every other word, then you’re pretty much spot on.

As you get fitter, you’ll find that you’ll be able to run at a steady pace for longer without fatigue, so it’s important that you condition your body to be able to tolerate this pace, simply by getting the miles in those legs.

**Tempo Paced Run**  
(RPE 5-6 or 80-85% HRmax)

A Tempo based run is run at a pace which is a stage quicker than a steady pace. At this intensity, talking is just about possible but you should only be able to manage shortish sentences before needing to take a breath.

The length of time that you are able to maintain a tempo paced run varies depending on your fitness level.

Beginners may initially find that a one mile tempo run is tough going but a good runner may be able to maintain tempo pace for a good eight to ten miles and far beyond. As your fitness levels improve, you will find that tempo runs gradually become easier to maintain for longer periods.
Fartlek
(RPE 6-8) or 85-90+% HRmax

Fartlek training runs are nearly as much fun to do are they are to say (nearly).

In short, fartlek runs are steady paced runs mixed up with periods of faster, harder running. These intense bursts of speed (performed at RPE 6-8) can vary in length and the number of times you perform them during a run. An example might be to increase your pace to a certain landmark such as a post box or park bench, or even more structured such as do them for a certain length of time.

Set the number of “fartlek intervals” you plan to do before your run, eg. 5 mile steady paced run with 8 fartlek intervals of approx 2 mins each. This keeps it easier to stick to when the going gets tough. This isn’t vital however and if you’d rather “fly by the seat of your pants” then just up your pace whenever it takes your fancy. It’s best to start easy and build as you get familiar with how your body responds and recovers from them.

Intervals
(RPE 7-9 or 90+% HRmax)

Intervals are very similar to fartlek training, with the main difference being that they are more structured. An example of an interval training session would be to jog gently for 10-15mins, gradually increasing your pace to a tempo run towards the end to make sure you are warmed up well. After a stretch, your interval session might look like this:

- 3 x 1 mile with 5 minutes rest in-between intervals
- 6-8 x 800m with 3 mins rest in-between intervals
- 10 x 400m with 2 mins rest in-between intervals

It’s a good idea to record your heart rate, pace and times for each interval so that you can track your progress – these sessions will get easier the more you do them.
FAQS on Training Intensity

Over the years, when it comes to training for half marathons and choosing the right intensity, the same questions keep cropping up from runners keen to just get it right and make the most out of training.

Here are a few of the most FAQs I have been asked over the years and hopefully they will help clarify a few things if you’re still a little unsure about how to best your training intensity.

How often should I do intervals or fartlek training?

You should no do more than 2 interval/fartlek sessions a week and make sure you leave at least 48 hours in between sessions. These are intense sessions and it takes a while for the body to recover from them.

How do I know how much rest to have in between intervals?

This is not always easy but start off being quite generous with your rest periods. In the early stage of training, start with a ratio of 1:1 (eg. 5 mins of running = 5 minutes rest)

As your fitness and your ability to recover improves aim to reduce the rest period by 30-60 secs at a time and see how you feel.

Do I need to include hill training?

Hill training is a fantastic way to propel your fitness levels to new heights but don’t bust a gut to include them in your weekly schedule. As effective as hills are to improve your leg and cardio-vascular strength, they also increase your risk of injury so unless your upcoming race has lots of hills in it, don’t worry if you leave them out of your training schedule. For a deeper insight in to hill training see the #askgraeme page by clicking here.
The fitFAQs Training Plans

At the back of this guide, you’ll find two training timetables for beginner, intermediate and advanced runners.

The beginner’s guide is suitable for people who are new or novice runners and are looking at finishing the race in around 2:30hrs. However, if you are finding that the plan is not quite challenging enough or you fancy pushing yourself a bit more, then by all means dip into the more advanced plan. You don’t need to make a permanent switch, but by integrating a tougher session here and there, it will do wonders for your fitness.

The Intermediate & advanced guides are suitable for people who already have a fairly good fitness base, have been running for a few months and are looking to break the magical 2hr barrier.

The key point to remember about these guides is that they are not the Gospel and they should be treated very much as a guide, rather than a definitive timetable which should be followed to the letter week in and week out.

I have strong feelings about how training plans should and shouldn’t be followed, so for more information on how to use a training plan, visit the #askgraeme page on the Brooks Running website by clicking [here](#) and read my article on adhering to training plans.
Preparing for a Run

Before you head out of the front door for a training run, it is essential that you do not just break into a run as soon as you’ve slipped on your running shoes without first preparing the muscles for training.

Muscles work in a similar way to plasticine - when cold they can snap easily, but when warm they are pliable and can be stretched.

Although an entire book could be written on the topic of stretching, the following pages will give you an overview of what you should do before a run in order to wake up and stretch your muscles, so that they are ready to tolerate a run without the risk of tearing.

Before you stretch, make sure you walk briskly or jog gently first. This will encourage blood flow to the muscles and make them more responsive to a stretch. If you stretch a cold muscle you also increase your chances of tearing muscle fibres - so make sure you’re warm.
The Running Muscles

- Hamstrings
- Quadriceps
- Calves
- Adductors
The Stretches

The Quadriceps

Situated at the front of the upper leg are your Quadriceps – four big muscles which help power you forwards during you run.

- Stand upright and grab hold of the front of your running shoe, pulling your foot towards your bum.
- You should feel a good stretch on the thighs but if not, tilt your pelvis skywards whilst keeping in the same position.
- Hold for about 10 seconds, then change legs.
- Repeat 2 or 3 times.

The Hamstrings

Situated at the back of the upper leg, the hamstrings are particularly vulnerable to muscle pulls and cramps, so a good stretch is essential.

- Extend the leg you want to stretch a foot or so in front of you, keeping it straight.
- Gently place your hands on the other leg at about thigh level and slowly bend it from the knee, as though you were about to sit down on a chair.
- Ensure you do not bend your back and keep it as straight as you can. You will begin to feel a stretch in the hamstring muscles as you lower yourself down.
- Once you feel the stretch, hold it for 10-15 seconds then change legs
- Repeat 2 or 3 times.
The Calves

Situated at the back of the lower leg, the calf is easy to stretch.

• Find a wall, tree or fence and extend one of your legs backwards.

• Ensure your rear heel remains on the ground.

• Slowly lean forwards and you will feel the stretch on the calf muscle.

• Hold for about 10 seconds, then change legs.

• Repeat 2 or 3 times.

The Adductors

Situated on the inside of the leg, the adductors help to stabilise your running stride and like the hamstrings, are vulnerable to injury.

• Face forwards and extend one leg to the side with your foot angling 45 degrees away from you. The other leg must remain straight and the foot pointing forwards.

• Slowly shift your weight to the side of the bent leg and you will begin to feel a stretch on the inside of the straight leg.

• Ensure your hips are facing forwards at all times. Hold the stretch for 10-15 secs.

• Repeat 2 or 3 times.
The Hip Flexors

Often overlooked, stretching the hip flexors is essential to help reduce your chances of injury. If the hip flexors get too tight, they can pull on the pelvis and cause everything from back pain to hip pain.

- Kneel down on the floor and extend one leg in front of you – bent at 90 degrees from the hip and 90 degrees from the knee.

- From this position, slowly rotate your pelvis upwards. Imagine your pelvis is a bucket full of water and you’re tipping a little bit of water out over your backside.

- The rotation of the pelvis alone might initiate a stretching sensation down the front of your rear leg but, if not, slowly move your whole body forwards until you feel a stretch.

- Hold the stretch for 15–20 seconds, then repeat on the other leg.

The Glutes

This is an excellent stretch for your major gluteal muscles. There are many ways you can perform this stretch and indeed many other good glute stretches, so do not feel you have to perform this one is you find others more effective.

- Find a wall or something solid to lean (your back) against.

- Place the ankle of the side you wish to stretch on the knee of the opposite leg.

- Very slowly lower your body, so that your standing leg moves from a standing position to a seated position.

- You will feel a stretch in the buttock of the other leg as you drop lower into a seated position. (see picture)

- Hold for 15–20 seconds and change legs.
Nutrition: Training Fuel
Nutrition - Training Fuel

They say you are what you eat and when it comes to fuelling your body for an endurance event, then that phrase couldn’t be more true.

In years gone by, nutrition and the role it plays in forming a successful training regime has not been taken hugely seriously but we know now just how important it is, if runners want to train and race to their full potential.

Although the science of sports nutrition can get incredibly complex, the basics are actually fairly simple and to save you from getting a headache with information overload – it is the basics that this nutrition chapter will cover.

*Like all training topics, nutrition is very individual, so although the advice in this chapter will apply to the vast majority of people, do not feel you have to follow it if you have certain dietary restrictions or requirements.*
Get the right Fuel

The fuel you use to supply your body with the energy to run is no different than filling your car with fuel – Diesel doesn’t let an unleaded engine go very far.

Every year entrants make the same mistake with their fluid intake, bad timing of carbohydrate consumption and worst of all copying what a friend eats.

It is so important that you find out early on in your training what foods agree with you and which foods don’t; so that you know right from the start which foods you can tolerate. A perfect example of this is pasta.

Generally regarded as a runner’s “best friend,” many people use pasta as their preferred source of carbohydrate to fuel their runs. This is a good idea in principle, but for those individuals who have a wheat intolerance; pasta could cause major discomfort and embarrassment on a long run.

Therefore, if certain foods cause you bloating or give you a sensitive stomach ignore what other people are eating and accept that some foods are off the menu.

How Much Fuel?

The energy used whilst on a run varies enormously depending on speed, distance, gender, muscle density etc.

It is impossible to give accurate information without knowing a great deal about an individual, but to give you an idea, according to leading sports scientists Wilmore and Costill:

A 13 stone male running at 7.5mph will burn approx 14 calories a minute and a 10 stone woman running at the same pace will burn approx 11 calories a minute.
Time to Carb up!

If you have ever considered following a restricted carbohydrate eating plan such as Atkins, now is not the right time.

Carbohydrate, protein and fat are known as the **Macro nutrients** and are all responsible for supplying the body with energy.

The proportion of each food group used to fuel the body varies according to what activities the body is performing.

The energy content of each macro nutrient is as follows:

<table>
<thead>
<tr>
<th>Macro Nutrient</th>
<th>Energy Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbohydrates</td>
<td>4 kcals / gram</td>
</tr>
<tr>
<td>Protein</td>
<td>4 kcals / gram</td>
</tr>
<tr>
<td>Fat</td>
<td>9 kcals / gram</td>
</tr>
</tbody>
</table>

As a general rule, the higher the intensity you exercise at, the higher the percentage of carbohydrates is used.

Therefore, during the higher intensity Fartlek and interval training, your body will call upon a very high percentage of carbohydrates to meet the energy demands.

During longer, lower intensity runs your fat stores are called upon more. This however, does not mean that you stop burning carbohydrates; you simply burn a slightly lower percentage.
Why Carb Up?

As mentioned, carbohydrates, such as potatoes, pasta, rice, oats, cous cous and breads are the most important fuel during your runs, but many people are left confused as to exactly why that is. After all, seeing that we all have an abundance of body fat with over double the energy per gram, why doesn’t the body use that?

The answer is down to the way the body converts the energy of each substance.

Carbohydrates are biologically fairly simple structures and can be used at “short notice” to supply the body with energy. This is the reason why it is the preferred energy source during high intensity exercise such as running. Fat on the other hand, is a lot more complex and harder to break down, and as a result, it is not as readily available.

When you eat carbohydrate, the body secretes a hormone known as insulin (the hormone diabetic’s lack, or cannot utilise). The insulin then attempts to store away the carbohydrate in the liver and muscles, so that the amount of sugar in our blood (blood sugar) does not reach a dangerously high level. The carbohydrate is then stored away in a form known as glycogen.

As soon as you begin a run and the demand for energy increases, the body calls upon the glucose in the blood to supply its muscles with energy. With the help of hormones, the body is able to maintain a constant blood sugar balance, by calling upon the stored glycogen in the liver and muscles to “refill” the blood with glucose.

The problem runner’s face is that there is limited space available in the liver and muscles to store glycogen (carbohydrates).

- The amount of storage space varies from person to person, but we are able to store around 500 grams – 2000 kcals.
- In contrast, the fat energy we store exceeds a whopping 70,000 kcals.
Carbing up for a Half Marathon

Unlike a full marathon, provided you have eaten sufficient amounts of carbohydrate before the race, your body has sufficient glycogen stores to see you through the 13.1 miles. During a full marathon, at about mile 18-20 glycogen levels can run out which is when some runner’s hit the dreaded “wall.”

When there is no more glycogen left to maintain constant blood sugar levels, the body loses energy and symptoms of fatigue and heavy limbs sets in. The body is still able to supply energy through fat and protein stores, but it cannot be utilised as quickly as carbohydrates.

When blood sugar levels drop too low, it can become dangerous. More severe symptoms of disorientation, hallucinations and faintness are a result of the brain being deprived of its favoured fuel – glucose.

How much Carbohydrate?

During training, your diet should consist predominantly of carbohydrates. The question many people have is how much should I eat and when should I eat them?

Seeing that carbohydrates are used heavily during training, it is important that they are replaced immediately after a run, so that there is enough glycogen to supply the body with energy for the next training session. In the 2 hours after training, an enzyme known as glycogenase is secreted by the body to encourage the storage of carbohydrate. This is the ideal time to restock on glycogen.

The question of how much is again hard to answer, due to our individuality. However, the table below will help to give you an idea of the amount of carbohydrate you should be aiming to consume on a daily basis depending on your training volume. This can be broken up into 3-5 small meals a day and include snacks such as toast and fruit.

<table>
<thead>
<tr>
<th>Training Volume</th>
<th>Carbohydrate per kg of Bodyweight</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-5 hrs / week</td>
<td>4-5 g</td>
</tr>
<tr>
<td>1-2 hrs / Day</td>
<td>6-7g</td>
</tr>
<tr>
<td>2-4 hrs / day</td>
<td>7-8g</td>
</tr>
<tr>
<td>5hrs a day+</td>
<td>8-9g</td>
</tr>
</tbody>
</table>
Hypoglycaemia

Hypoglycaemia occurs when blood sugar levels drop too low. There are a variety of levels of hypoglycaemia, the worst of which you are unlikely to experience during your half marathon race, but in order to enjoy the race, give your body the best chance to keep your blood sugar levels constant and ensure you have sufficient sugar in your blood stream.

The following guidelines should not just be adhered to for the race itself, but also during your longer distance training runs.

Pre-run meal

In the days leading up to a distance run, you need to consume plenty of carbohydrates to ensure your glycogen stores are sufficiently full.

There is no need to eat a huge bowl of pasta before your run, as it is the days leading up to it that are important. After all, you’re not going to be eating a bowl of rice at 7am on race day! Depending on the time of your run, leave at least 2 – 3 hours before your big last meal.

Snacking on lights foods such as fruit is fine, as they are easily digested. If your stomach contains large amounts of food as you set off, this can lead to stitches, as your stomach and working muscles compete against each other for blood.
Got a running question? #askGraeme!

- Q: When is the best time to consume carbohydrate rich food? #askgraeme
- Q: How can I increase my chances of getting a PB #askgraeme
- Q: What is the best way to pace a Half Marathon? #askgraeme

Want to know the answer to these common questions and a whole load more?

Visit the Brooks website and check out the #askgraeme pages
Hydration
The human body is made up of around 60-70% water, so it is essential that you keep your body well hydrated during your training and the race itself, especially if it is a hot day.

As you exercise, your body heats up just as the engine in a car heats up during a journey. To stop overheating, water is drawn for blood plasma and secreted from pores in the skin, as sweat, to cool the body down.

However, as the water content of blood decreases, it changes from a free flowing watery substance into a thicker more “treacle” like substance. This makes it harder for blood to flow through the arteries and veins quickly enough to supply the muscles with the right nutrients to sustain the same level of exercise.

To meet the demands, the heart is forced to pump faster resulting in an increase in heart rate. This ultimately leads to feelings of fatigue and premature exhaustion.

So, the following few pages will help you to understand a bit more about the best ways to stay hydrated and what kind of drinks are best for your training sessions and on race day.

Just a 1% decrease in hydration, will cause around a 5% decrease in performance. A water loss of just 12% of a person’s body weight can lead to death.
Water or Sports Drink?

Knowing which kind of fluid is best for your hydration and training needs is often an area of much confusion for runners.

Do you need to re-hydrate with the powerfully and aggressively marketed Sports drinks such as Lucozade or will good old fashioned water do?

The answer is not that straight forward, because there will be occasions in your training when water will suffice and other times when a sugary and electrolyte drink such as Lucozade sport will be more suitable.

To help illustrate when you need to choose water or Sports drink, take a look at the table below. As you’ll see, the two determining factors are exercise intensity and exercise duration.

<table>
<thead>
<tr>
<th>Exercise Conditions</th>
<th>Type of Drink</th>
</tr>
</thead>
<tbody>
<tr>
<td>Running for less than 30 minutes</td>
<td>Nothing or Water</td>
</tr>
<tr>
<td>Light Jogging for less than 60 minutes</td>
<td>Water</td>
</tr>
<tr>
<td>High-Intensity Running for less than 60 minutes</td>
<td>Sports Drink</td>
</tr>
<tr>
<td>High-Intensity Running for more than 60 minutes</td>
<td>Sports Drink</td>
</tr>
</tbody>
</table>

Table adapted from “The complete Guide to Sports Nutrition” by Anita Bean
How much Fluid?

Knowing what you should be drinking is one thing, but knowing how much you should be drinking is another and again, there isn’t one simple answer as it depends on a number of factors.

These factors include:

- **Individuality** – some people need more fluid that others due to higher rate of sweating.
- **Conditions** – The warmer the conditions, the more fluid you’ll require.
- **Running intensity** – The faster you run the more you’ll sweat and the more fluid you’ll need to replace

As you can see, offering a “ball park” figure on the amount of fluid you’ll need to consume before, during and after training is almost impossible to advise, so here is something you can do at home (and it really is best to do at home) so that you can gauge for yourself if you need to increase your fluid intake.
The wee test

![Image of hydration levels]

Although I accept that this test is easier for guys to do than girls, it is still a very good way to gauge your hydration status.

As a general rule of thumb, you should be drinking enough fluid during the day that every time you “pass water” it comes out either clear or a pale straw colour – number 1-3 in the image above are acceptable.

If you ever find that your urine is the colour of 4 or higher, then you need to get some fluids in you. The only time that it should be this colour is first thing in the morning when you will be naturally dehydrated after sleeping for 6-8 hours.

**Wee colour pre and post training**

After a run, the first time you pass water will serve as a very good indication of how dehydrated you are and how much fluid you have lost during the session.

In cold conditions and/or short training runs of lower intensity, you’ll find that you’ll lose far less fluid than on a hot day, and your urine may only appear a shade or two darker after a run.

However, following an intense run in the heat or of long duration, you’ll find that your first wee after your run will be a lot darker meaning that you have lost significant fluid – as much as 2 litres is not uncommon for some.

For long runs, it is vital that you replace some of the fluid you’re losing to ensure that your body does not start slowing down due to dehydration and also to prevent your body overheating and expose you to the risks of hyperthermia.

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*The majority of weight-loss after a hard run is due to loss of fluid. It’s not uncommon to lose as much as 5lbs.*
Fluid replacement Guidelines

By using the wee test, you will, overtime, begin to understand how much fluid you can lose on training runs of certain distances and intensities in certain conditions. This will give you a far better idea on how much fluid you should be taking on before, during and after training.

There is another way though.

**Weigh yourself**

By weighing yourself before and after a run, you’ll get a very accurate idea of how much fluid you have lost based on the weight you lose.

As a rough guide, **1lb of fluid is equivalent to 1 pint of water**, so if you find that after a hard run you’ve lost 4lbs, then it means that you lost somewhere in the region of 2 litres (a shade over 4 pints).

That’s a lot of fluid and enough to impede your performance, so the next time you tackle a training run in similar conditions and at a similar intensity, consider taking on fluids during the run.

**Rule of Thumb**

If you chose not to use any of the above methods to monitor your fluid loss, then you can use the following rules of thumb as a guide to maintaining a good hydration status during a training run or the race itself:

*Aim to replace 150-250ml of fluid every 20-30 minutes*
Hyponatremia

As essential as sufficient hydration is to keep you moving and prevent dehydration, there is a danger of over doing it and causing serious health problems if you drink too much water and train in hot conditions.

A combination of drinking excessive quantities of water as well as excessive sweating, can lead to a significant loss of essential salts (electrolytes) from the bloodstream and cause a condition known as **hyponatremia**.

This loss of electrolytes over a short training run is not generally a problem, as the body has hormonal regulators to balance the salts in our cells to keep them normal.

During longer runs however, salt loss from the body from diluting the blood with too much water as well as profuse sweating, can cause sodium levels to drop too low leading to symptoms of confusion, weakness, disorientation, even seizures.

Luckily, cases of Hyponatremia are rare especially in half marathon races, but they do occur every year.

There is no need to go overboard on salt consumption in the lead up to the race, as we all consume too much salt in our diets anyway, but it is certainly not a good idea to completely avoid salty foods.

During training runs, particularly on hot days, make sure your fluid replacement drink contains both sodium and glucose. If possible, try to leave drinks on your planned route, such as by a tree, so that you don’t have to carry heavy bottles with you.

It is important that you practice drinking the sports drinks during your training. This gets you used to drinking on the run and ensures that your system is not intolerant to the drinks.
Injuries: Prevention & Cure
Injuries
Prevention is better than cure

There are two types of runner:

“The ones who are injured and the ones who will be

Sadly, in my experience this is a pretty accurate saying as it seems that at some stage or another you’re likely to pick up an injury of some sort.

To go into detail about the how’s and why’s of injuries and how to prevent them is beyond the scope of this guide, so if you’d like to learn more then I strongly recommend you buy my book “The Marathon and Half Marathon: A Training Guide” which goes into injury prevention and treatment in a lot more depth.

In the meantime, the next few pages will help to give you an idea of why some injuries happen and what you can do to help prevent them.

Remember, this guide is not a substitute for a qualified health professional as most injuries are unique and will require specific treatment. Always visit a Physiotherapist or your GP if you are injured to ensure the correct treatment is prescribed.
Fire up those Glutes

Weak Glute muscles are really common in runners and one of the major causes of injury.

To help you see why this is, take a look at the images below:

A

B

It’s hard to believe that image B was captured less than half a second after image A, yet looking at the runner’s waistline; you’d be forgiven for thinking that they were different people.

What you are looking at is a very common biomechanical problem where the glute (bum) muscles are weak and are unable to keep the pelvis stabilised during a running stride.

All looks good and balanced in image A, but as soon as the right leg takes the weight of the body in image B the (right hand side) glute muscles are too weak to keep the pelvis upright, resulting in the pelvis to drop to the left.

Overtime, this weakness can place stress on the hips, knees and ankles of the right leg causing any number of injuries.

If you can, have a friend video you from behind whilst running and see if you notice something similar happening with your pelvis.
How to fix it......

So, if you think or know you are weak in this area what can you do about it?

Firstly, you can of course make an appointment with a well-qualified sports therapist or physiotherapist who will assess your whole body and make recommendations on which muscles you need to stretch and / or strengthen to keep the body balanced and more resistant to injuries.

If budget does not allow this, then try performing the following exercise 3 -4 times a week to help strengthen those glute muscles. Performing this exercise may well be just the tip of the iceberg, but it is a very good place to start and will do no harm at all.
Common Injuries....

Sadly, there are a plethora of injuries you can pick up from running which hopefully you’ll be able to avoid for the duration of your training.

However, there is of course a chance that at some stage or another a little niggle which you had hoped would go away, in fact doesn’t and instead gets worse and starts to interfere with your training.

If you do find yourself injured at any stage of your training, I cannot stress the importance of nipping it in the bud early and do all you can to prevent a small problem become a big one.

Do not be put off by having to go and see a Physio who may very well only need to see you the once and simply give you a few protocols and exercises to do at home to help reduce inflammation and strengthen up the area so that you’re good to go again as soon as possible.

The next few pages feature some of the most common injuries experienced by runners training for an endurance event.

For more detailed information on injuries and to find answers to come Frequently asked questions, visit the #askgraeme page on the Brooks Running Website by clicking the image below.

Got a running question? #askGraeme!
Illio-tibial band friction syndrome

The “ITB” is a non elastic cord originating from a muscle called the TFL just below the pelvis, to below the outside of the knee. If this band becomes excessively tight, it can cause friction on the outside of the knee and even in the hip joint causing a great deal of discomfort. Pain is usually experienced on the outside of the knee when it is flexed and is sore to touch. (click on image to the right for a short video)

Symptoms

- Discomfort on the outside of the knee or hip
- A “clicking” sensation on knee flexion on the outside of the knee as the tendon rubs against bone.
- Pain in the knee or hip when attempting to walk downstairs and sometimes when sitting down in a low chair.
- Sudden onset of pain after several miles into a run.

Causes

There are a number of causes of ITB syndrome and it can affect any runner regardless of sex, age or fitness levels. The main causes include:

- Running on a cambered or uneven surface
- Upping your running mileage too quickly
- Increasing the intensity of your runs
- Incorrect running shoes for your gait
- Muscular imbalance in the leg muscles

Treatment

If you are unfortunate enough to experience the symptoms of ITB syndrome the first thing you must do is follow the RICE protocol, especially with the application of ice to help reduce inflammation.

Whilst you are living with the injury and running is not possible, you may find that other forms of aerobic exercise such as swimming, cycling and rowing may be possible to do without pain. If this is the case, substitute your running for one of these to keep your fitness levels up.

Take a look at this video for more information on ITB syndrome. It’s clear, informative and one of the better explanations out there.
Plantar Fasciitis

The foot contains a vast number of complex structures. Small bones, ligaments and tendons all work harmoniously to assist in a smooth and pain free running stride. The repetitive nature of endurance running can however, initiate a variety of inflammatory responses of which plantar fasciitis is one. Running underneath the foot from the bottom of the heel bone to the toes, is a long fibrous tissue known as fascia. This elastic sheath can sometimes become inflamed and / or damaged and cause a great deal of discomfort.

Symptoms

- Pain in the bottom of the heel, especially in the morning
- Pain feels like “stepping on a stone”
- A burning sensation on the arch of the foot
- Relief can be felt when “standing on the heels”

Causes

Predictably, as with the most other injuries, the causes of plantar fasciitis can be a result of over pronation, tight calf muscles, over training and increasing your training intensity too quickly. Some people are more prone to picking up this injury than others, so if you are new to running be aware of these symptoms and seek professional advice if you think you may have it - nipping it in the bud is essential to prevent weeks off training.

Prevention

A good warm up and stretch prior to a run will ensure that the muscles are properly prepared for a run and tightness does not have a knock on effect on the plantar fascia. Taking time to stretch after a run is also important to make sure that the muscle fibres are stretched out and realigned. Resisting the temptation to train harder than your body and muscles are ready for, is also a good precautionary measure.

Treatment

As is the case with any inflammatory injury, the RICE protocol must be followed at the onset of any plantar fascia discomfort. Under no circumstances should running be resumed until symptoms have disappeared. In cases of chronic (long term) pain, the advice of a professional should be considered so that a biomechanical assessment can be carried out. If the root cause of the injury is a result of excessive over pronation, shoe inserts can be prescribed to reduce the stress and over stretching of the plantar fascia.
Achilles Tendonitis / Tendinopathy

The achilles tendon is a very thick tendon which connects the calf muscle to the heel. Throughout your training it is worked incredibly hard and injuries to it are not uncommon. Achilles tendonitis (or more recently referred to as Achilles Tendinopathy) involves the degeneration of the tendon and is particularly common in men. This injury is very common so do not ignore the symptoms.

Symptoms

- Stiffness in the achilles tendon, especially in the morning.
- Pain when trying to stand on tip-toe.
- Gradual onset of discomfort during and after exercise.
- Significant tenderness to touch the achilles.

Causes

The main causes for achilles tendonitis are very similar to that of ITB syndrome. A sudden increase in running distance or intensity can place the achilles under a level of stress that it is simply not used to, initiating an inflammatory response. Incorrect footwear with poor shock absorption and excessive pronation can also be contributory factors to an inflamed achilles, so once again there should be an emphasis on preventing the condition rather than treating it once contracted.

Prevention

This injury, once contracted, can stay with you for a long period of time so prevention is your priority. The major steps you can take to protect your achilles from injury are:

- Make sure you have the correct trainers for your running gait
- Warm up well before a run with a brisk walk
- Stretch out the calf muscles well before and after a run
- Do not increase you running intensity and /or speed too quickly

Treatment

If you begin to feel a niggle in your achilles tendon, the first thing you must do is apply ice to the area and keep icing it for 48-72 hours. Even if you feel it is over the top, keep icing. You must reduce the inflammation as soon as possible. Regular stretches for the calf muscle are an important part of rehabilitation but they must be performed gently to avoid further aggravation. Professional advice irrespective of injury severity is recommended, so that your specific injury can be assessed and treatment can be administered accordingly.
Disclaimer

"The contents of this guide are to help readers prepare for half 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 half marathon training, always seek proper medical advice.

The author cannot be held responsible for illness arising out of the failure to seek medical advice from a doctor"
About the Author:

Graeme Hilditch is a Celebrity Personal Trainer and leading authority on running.

His Book, "The Marathon and Half Marathon: A Training Guide" has already entered its sixth reprint in just 5 years and is the currently the bestselling marathon training book by a British Author having sold over 16,000 copies.

Used by BBC Newsreader and Presenter Sophie Raworth for her successful London Marathons in 2012/2013 and describing it as a:

"Fantastic book - with everything you need to know to run a marathon at your fingertips"

I hope you too will find the book useful and that it helps you with your weeks of upcoming training."

Graeme lives in the Cotswolds with his wife Jo and two young children.

Books: