

CYCLING GUIDE

Beginner's book on
nutrition, training,
equipment and more



DAN STEVENS

CYCLE TOURING

Your guide to everything
bike touring



DAN STEVENS



Dan Stevens

RUNNING A HALF MARATHON

A Beginners Guide

RUNNING A MARATHON

A Beginner's
Guide



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Cycle Touring – Your Guide to Everything Bike Touring

Introduction

Cycle touring is a fantastic way to see the world and has endless benefits:

- being able to travel surprisingly long distances
- having more intimacy with your surroundings than when travelling in a vehicle
- getting extremely fit and healthy
- it is an environmentally friendly means of travel

It can be hard work (it is hard work!) but that is part of the appeal - pushing your body day after day, grinding out mile after mile, hill after hill. Whilst this may sound like hell to many, this is just a small part of what can be hundreds of life-changing experiences in locations all over the world. If you are not yet a cyclist then hang on in there, continue to read and be ready for a new hobby that will stay with you for life!

What are the other benefits of cycling?

Fitness is a major benefit of cycling. Professional cyclists are some of the fittest people on the planet and whilst you may not reach their levels of fitness, if you do any sort of cycling for any decent amount of time you will notice huge changes. Weight loss, lower body fat, muscle strength, lung capacity and higher energy levels are to name but a few. You will just feel a lot better - about your body, about your mind and about yourself in general. If you take up cycle touring specifically, you can add a vast number of benefits to that list.

The lure of the open road

This may be a feeling you are familiar with already, but most people find once they have started cycle touring, they come to realise what they were searching for. It gets into your blood.

Have you seen the magazine articles, or news stories about a British man or American couple or South African student who have left everything behind and embarked on a cycle tour covering nearly every corner of the globe? Some trips may be decades in length. Why do they do it? I'm sure they have many reasons but I am also sure that 'the lure of the open road' plays a

significant part.

The feeling of crossing a county, state, national park, country or even continent under your own steam, using nothing more than the muscles in your legs is a very satisfying feeling that has to be experienced at least once in your life.

It opens up a whole new world up to you - soon every highway, forest trail or ocean road is viewed as a future potential route. One of the best feelings for a cycle tourer is poring over a map, marking potential stopovers, wincing as you see the ascent of the next mountain pass, but secretly chomping at the bit to get going.

It can become life consuming for some people - there are many stories of marriage breakdowns, quick house sales and bosses told to 'stick their jobs'!

For most though, it ends up being a thoroughly fulfilling pastime that many people continue to do late into their lives.

Cycling is enjoying resurgence as millions of people the world over jump on a bike every evening or weekend and ride to work, take part in a sportive or time trial, hit the local woods or ride just for the sheer hell of it.

Road and mountain biking are the first two disciplines that people encounter when taking first steps into more serious cycling. Touring is seen as mysterious, and for many people the only cycle tourer they ever see is that bearded man they once noticed passing through their local town who seemed to be carrying all his worldly possessions on his bike.

Next time you see this man or woman, remember the journey that they may have been on or are just starting. Remember that this could be you - complete freedom, the whole world ahead of you.

So what is in this book?

This book discusses the ins and outs of cycle touring. I will not be preaching that this way or that is the best or right way, but will simply convey my many years of cycle touring experience in the hope that other cycle tourers will find some useful information. I do however hope that I can inspire others who may not have cycle toured in the past to 'throw on a rack' and give it a go!

I will give examples of how the advice in this book relates to real world experiences on the road. I have made many mistakes along the way and I will

share them all with you!

I always had the mantra of “get out there and do it - the planning can come later!” Although I cannot 'officially' recommend this course of action, I can say it forced me to learn fast!

Cycle touring is supposed to be an adventure; it is about the journey and not the destination. Some of the very best experiences I have had on bikes came when I did not know where I would stay or even what direction I would head next.

Now I am not saying jump on a plane to Africa and head out with no map or idea of where you are going! That wouldn't be so smart. Start by being adventurous in your own countries. In the UK you have some of the best touring anywhere in Europe, from the national parks in the South West to the Scottish highlands, the variety is simply outstanding. Go on a short 2 or 3 day tour and explore. Take a map, check out tourist information centres and make decisions on what you find on the way. You will see your own country or even own county in a very different light.

If you are from the US, Canada, Australia or New Zealand then you have some incredible cycle touring opportunities right on your doorstep. That is the amazing thing about cycle touring - there are opportunities everywhere, nearly every country you could ever think of has some amazing cycle touring to offer.

The world offers endless opportunities to cycle tour and there are few places that are out of bounds!

So, I hope we have whetted your appetite to find out more, so let's get started!

Planning

Choosing a place to cycle tour is easy. Decide on a country, pick a suitable time of year and go! Getting to and from your chosen destination can take a bit of planning, but the beauty of touring is that these are the only aspects of a tour that require a bit of brain work. Once you have arrived in your chosen country, you just pedal and see where you end up. Having a skeletal structure of towns, attractions and where to restock supplies can definitely help. However, these will undoubtedly change once the wheels begin to turn.

For some, the idea of travelling indefinite distances eating at random eateries and sleeping wherever you end up fills them with dread. This fun, exciting, healthy and rewarding method of travel is however, what makes cycle touring so magnificent!

Where, when, how long and why?

These questions can only be answered by you. Do you have the money for long haul travel? How long can you take off work? Do you have a family at home?

All these questions must be answered before you set off on a journey. Remember cycle touring does not have to be a huge cross-continental epic, it can just be a weekend amble.

Once you have decided on a country, do some research! For example:

- Travel arrangements and facilities to and within that country
- Money, local currency and where to withdraw/exchange funds whilst in-country
- Facilities along proposed route – accommodation, supermarkets etc.
- Location of cycle shops
- Emergency services – contact details of major hospitals is helpful
- Communications – will your phone work and is there internet access readily available (in most countries internet cafes are cropping up anywhere and everywhere!)
- Climate – How hot, cold and wet will it be (this will have an impact on your clothing/equipment)
- Dangers – Crime, wildlife and climate are all factors that need to be taken into consideration

I know it seems like a lot of work but the more care you take in planning the trip, the more smoothly it will run.

Travelling with all of your touring equipment, plus of course your bike can be challenging at times, but the key is to book ahead. Work out well ahead of time what planes, trains and buses you may need, phone them and find out, straight from the horse's mouth, their procedure for travelling with a bike. Book ahead if you can.

Having the right clothing and equipment is hugely important; it can be the difference between life and death in many cases. If you are cycling through the mountains of Alaska you will need your cold weather gear, as opposed to cycling through the Australian desert when you will need sunscreen and the

ability to carry a lot of water. Get that wrong on either trip and you are in serious trouble.

Shopping facilities are also extremely important, and no, I don't mean where to get the latest fashion accessory! If you are travelling through even sparsely populated areas, food should not be a problem because where there are people, there are shops or markets. Problems arise when you are covering large distances through unpopulated areas. You will need to work out where the next point of restock will be, how long it will take to get there, and then ensure you have enough food for the journey. You will be amazed at how much food you will go through when cycling. Make sure you have enough!

Another consideration when going through unpopulated areas are spares for your bike. In sparsely populated areas, you are unlikely to find a bike shop and you will need to take everything with you. We will talk more about bike spares shortly.

Communication is something we all take for granted in civilization, but it is something that needs to be carefully considered in many other countries. Will your phone work? Is internet access available? If you are staying for any length of time, it is easier and cheaper to buy a local SIM card. Always tell someone where you are cycling and when you will be 'checking in' again.

The Bike

What's more important in cycle touring than the bike?! The choice you have these days is mind-boggling. There are shiny new bikes in every shop, all promising to be the latest this or that. So how do you decide?

You should always speak to a few cycle shops and get their advice. Ensure you speak to several cycle shops, as they are always likely to be biased towards their own stock. There are a few cycling shops that actually specialize in cycle touring. These are definitely worth seeking out for touring-specific queries.

Sit on the bike, it is essential to actually give it a go.

Types of bike

Touring specific – designed specifically for cycle touring, the wheels and frame are strong and rugged. They normally come with racks for carrying your luggage readily installed. They also have lots of gears to help you up the hills when fully loaded. These types of bikes are obviously a good choice because they are made for the job. Touring bikes loosely fall into two categories:

- *Expedition* – with smaller, mountain bike sized wheels (26 inch) and flat or ‘butterfly-style’ handlebars. These are more suited for long-haul, expedition-style touring where the quality of roads cannot be guaranteed.
- *Road* – with 700mm, road-style wheels and often dropped-bar, racer-style handlebars. These are best suited for tours on good quality asphalt roads.

Mountain – Many tours have been completed on mountain bikes people still use them. Ordinarily they have many gears and are very strong. The riding position is not for everyone and in fact, the main shortcoming of using them for touring is that they are rarely ergonomically suitable. They can be uncomfortable to ride for hours and days upon end and some have too ‘aggressive’ a riding style. However, they are good for ‘off road’ touring when a large part of the journey may be on dirt tracks.

Ergonomics – this are the angles at which you ride and your position on a bike. For touring, the most important factor is the riding position you find most comfortable. Some people like a more upright riding position, whilst other still prefer a more road bike riding style. Find out what works for you and if it feels uncomfortable, better to change it sooner rather than later.

What’s it made of? – The two main choices are steel or aluminium.

The main advantage of steel is it is strong and very slightly flexible, not flexible enough to actually see, but just enough to soak up lumps and bumps in the road. Many people find it slightly more comfortable when riding long distances and it is also slightly easier to get welded when on the road. Steel bikes tend however, to be slightly heavier than their aluminium counterparts.

The pros for aluminium are that it is very light and strong, but is more rigid than steel so gives a slightly firmer ride. Power is transferred far easier whilst pedalling as no energy is lost in the flexing of the bike. However this is less of an issue whilst touring and is virtually negligible.

Cost? – Prices vary hugely. You want to buy the best bike that you can afford, but remember that people have cycled thousands of miles on old mountain bikes that cost nothing more than a couple of hundred dollars. A friend of mine swears by an old 1980's steel-framed mountain bike he bought for \$20 at a junk sale which he kitted out with a rack, new pedals and handlebars (mountain bikes in the 1980's tended to be less aggressive and therefore more suited to a touring riding style), total cost = \$150 – bargain! The key however is to do your research, try different brands, styles and sizes so you're in the best possible position to commit to one of the best purchases you'll ever make – trust me on this!

Once you have your bike, there are a few checks to do before starting any ride:

- Check all nuts, bolts and quick releases to ensure they are all tight
- Check the chain is properly lubricated and is sound
- Check wheels are running true (there is limited or no 'wobble') as they spin
- Check your gear and brake cables (testing our brakes daily is also a good habit of getting into!)
- Check your racks to make sure there are no cracks or loose bolts
- Check your tyres are sufficiently inflated

Pannier Racks and Bags

If you're going to be self-supported and carrying everything you need, these are essential. Your rack needs to be good quality as this is what supports the weight you will be carrying and if you buy cheap here you are likely to suffer for it later. Rear racks are slightly larger than front racks and can accommodate larger panniers.

The bags need to be waterproof and dustproof. You can line the pannier bags with a separate waterproof bag but this is just adding unnecessary weight. The best bags on the market are the waterproof, tear-resistant polythene, roll-down bags that can be completely sealed, ensuring that

whatever is inside is kept water and dust-free. These also tend to be far more hardwearing than other fabric bags. I have also used a handlebar bag over the years. These are mounted, as the name suggest, on your handlebar, and are very handy for keeping your camera, snacks, sunscreen, valuables and map at hand. Many come with quick-release mountings and a shoulder strap, which means they can be easily grabbed when popping into a shop or campsite reception.

So how many will you need? This of course depends on where you are going, where you are sleeping and eating, and the environment you will be cycling through. In warmer countries, I have just used with two rear panniers and a handlebar bag. On longer tours, two rear panniers, two front panniers, a long dry bag for my tent (bungeed along the top of my rear rack), and a handlebar bag has been more appropriate. Whilst having more bulk means you will be less aerodynamic, on longer tours, going slow and enjoying the ride in the knowledge that you have everything you need, is far more pertinent. I would definitely recommend however that you keep luggage to a minimum. I have climbed countless hills regretting bringing so many things I didn't need – what you will need is discussed later in the book.

Distributing the weight over the rear and front of your bike definitely has its' benefits; there is a more even deterioration of front and rear tyres, your bike is easier to steer as the weight is balanced, and there is less stress on your bike as a whole. When I have been carrying less luggage and left my front panniers at home, loading up my handlebar bag with heavier items (just make sure you have a quality handlebar bag that can cope!) has definitely helped to distribute weight over my bike.

Remember, riding with panniers is very different than without. Steering can take some getting used to and of course, the added weight makes hill that little bit harder, so use those granny gears! It is essential you take plenty of time getting used to it, ensure that your panniers are weighted equally on both sides of your bike and take it steady at first (as if you needed telling!).

Be warned, good quality racks and panniers are not cheap, but I have learnt the hard way over the years – get the very best you can afford and you won't have to.

Finally, rucksacks are simply not an option, they increase the pressure on your saddle, can be extremely unwieldy and cause backache.

Tools

There are many schools of thought when it comes to tools and what kit to bring with you on a cycle trip. I know cycle tourers who bring nothing more than a multi tool and mini pump. These funnily enough always seem to be the guys that never have any problems! Fortune maybe does favour the brave!

On the other end of the scale, there are those who bring every tool they can get their hands on. Somewhere in between is generally what I aim for.

The most important factor in deciding what to pack is where are you going and for how long. If it is a long weekend in and around civilization, your needs are going to be different to someone cycling across the plains of Mongolia.

A basic kit I have on any tour is:

- Bicycle multi-tool with allen keys and chain tool
- A normal multi-tool with pliers
- Puncture repair kit
- Mini-pump
- 2 x inner tubes
- Spare nuts and bolts (check which bolts you have on your bike)
- Cable/zip ties (an assortment of different sizes is best)
- 2 x adjustable jubilee clips
- Gaffa/Duct tape (great for fixing just about anything)
- Small bottle of chain oil
- A strong bicycle lock (I go for a U-lock in addition to a wire as this gives flexibility and a great deal of security)

This will help you through the basic ‘tune-up’ tasks that need to be completed. I then add various items depending on where I am going and the remoteness of the route.

Here are some possible additional:

- Spoke key
- Spokes for front and rear wheels (note that spoke lengths vary)
- An assortment of more nuts and bolts

- Foldaway tyre
- 2 x spare brake and gear cables
- A couple of chain links (check it is the same type as your chain)
- Chain whip
- Lockring tool (for removing cassette in the event of a broken spoke on the drive side)
- Small bottle of lube

Having this equipment is all very well, but knowing how to use it all is essential. There are plenty of free resources online, with instructional videos, manuals and special techniques. A more reliable method is to either attend a bicycle mechanic course (some bicycle shops run them for free), or ask if you can observe/help out in your local bike store.

Other Gear

The big question when considering what to carry is where do you intend to eat and sleep? If you're touring on a budget, it is possible to carry everything you need to survive, including tent, food and cooking equipment, for several days at a time and live extremely cheaply. The more expensive option is staying in hostels, B&B's and hotels. Whilst this option may be more expensive, you will carry less and it will undoubtedly be more comfortable.

Below I have listed some of the equipment needed for a self-supported cycling trip. This list can be adapted to your needs and obviously a great deal of equipment can be left out if you're not intending to camp.

Tent

Your choice of tent is going to depend on where you are going and who with, but this could be your home for months on end so it is wise to do some shopping around. The key points to remember are that, whilst weight is important, so is strength. It is no good having a tent that gives up in a storm one night when you were just saving a few lbs/kgs in weight. Some things to look out for when buying:

- Get ripstop nylon – it is lightweight, easy to repair and, as the name suggests, tears are isolated due to the weaving of the fabric
- Geodesic (where poles cross over in a certain manner) tents are stronger than non or semi-geodesic tents but they tend to weigh more due to extra poles
- Dual-skinned tents are warmer and more breathable than single-skinned which means there will be less condensation on the inside in the morning
- Large porches are handy for storing luggage, and, if you're concerned about safety, your bike too

Sleeping

If you are camping, you will need a sleeping bag and sleeping mat that is suitable for the environment. Both sleeping bags and mats are given ratings to give the user an indication of their intended use. Ensure it is rated to the temperatures you will likely encounter.

The primary function of a sleeping mat is to prevent you losing body heat into the ground, whilst comfort is actually a secondary feature. For this reason, lilos or basic inflatable mattresses are not suitable for camping in colder climes.

There are two main types of sleeping mats – closed cell foam and self-inflatable. Closed cell mats are bulkier but lighter and do not puncture. Inflatable mats pack down much smaller and are more comfortable but they are slightly heavier and if punctured are rendered next to useless (your puncture repair kit will however fix most small holes!). Personally, I use an inflatable mat and will probably never go back to closed cell. I assure you, once you've tried an inflatable, you'll never go back too!

Sleeping bags come in all shapes and sizes. The best are mummy-shaped with a full-length zip and toggled hood. The filling can be either synthetic or down. Down is lighter, compresses well and has an excellent warmth-to-weight ratio, but when it gets wet, is useless. Synthetic bags tend to be heavier and bulkier but still offer warmth when wet and are usually cheaper than down.

When deciding on which sleeping bag to buy, consider how wet and cold your destination will be, how much weight and bulk you can carry, and finally (but probably most importantly!), how much it will cost!

A sleeping bag liner is used inside your sleeping bag. They are made from either cotton, silk or fleece. The most expensive is usually silk but this also offers a fantastic warmth-to-weight ratio. A fleece liner is really only used to boost the warmth of your sleeping bag and is obviously both quite heavy and bulky. A cotton liner is a cheaper alternative but is heavier than a silk liner and less effective at adding warmth. All liners add warmth to your sleeping bag and keep them clean, they can be used on their own in warmer environments, are more easily washed than your sleeping bag, and can be used when you suspect the cleanliness of hostel or hotel sheets!

As a minimum, your sleeping system should consist of an insulating mat, sleeping bag liner and sleeping bag. In addition to this, you may consider the following:

- **Pillow** – a bit of a luxury item as clothes and jackets can be used
- **Hammock** – in certain countries a hammock can be a welcome addition to your kit and great for a quick nap whilst waiting for a

bus/ferry

- **Bivi bag** – if you're intent on travelling ultralight but still 'roughing-it', a bivi bag is very handy. They are made of a waterproof but breathable fabric which offers a weatherproof shell to your sleeping bag and can also add warmth. Try to ensure you breathe outside of the bivi bag as condensation can be a real problem, no matter how 'breathable' the manufacturer claims.

Clothing

Clothes are obviously a very personal choice when it comes to cycle touring as I know only too well. Some people ride in near arctic conditions in only a t-shirt whilst others will throw on a windproof at the mere hint of a breeze!

You should know by now if you cycle ‘hot or cold’ and you will need to practice what clothing systems work best for you.

Space is obviously at a premium when cycle touring so clothes need to be multipurpose. As in other outdoor activities, the best way to go is using layers. It makes no sense to take a huge jacket with you as you will only be able to wear it in very cold conditions. If you have 3 or 4 lighter garments you will be able to tailor your comfort much better.

Do not expect to be wearing nice clean clothes every day; this is cycle touring and you will smell at some point so get used to it. As long as everyone on the ride smells, it’s fine! On a serious note though, taking a collapsible bowl makes doing laundry easy so there’s no excuse and, remember, good standards of hygiene are essential.

It is important to use ‘technical’ clothing as opposed to standard cotton t-shirts and shorts. I am not saying you need to go out and purchase the latest bright pink all-in-one lycra bodysuit! However there is a reason why most cyclists wear ‘technical’ or wicking, cycle-specific clothing. Sweat is drawn away from the body and pushed to the outside of this clothing where it evaporates. Whilst this helps keep you dry and comfortable, they also tend to be quite tight fitting (they have to be tight fitting to work efficiently) which means you have nothing flapping around in the wind when riding. If you have never worn tight fitting cycle clothing before it can feel very strange, but give it time and soon you will never be out of them!

Below I have listed the clothing I take on a multi-day ride. On rides for a few days or more, the clothing will stay the same, whether it is 4 days or 4 weeks. Getting a system in place for doing your laundry whilst on the move is the way to go. For example, get into a routine of washing a pair of socks each day and hanging them off the back of your bike the following day to dry!

- 2 pairs of cycling shorts (again, get the best you can afford – these can save a lot of soreness!)

- 2 wicking t-shirts
- 1 long sleeve wicking t-shirt
- 1 fleece top
- 1 or 2 pair(s) of quick-drying trousers
- 1 pair of swimming/board shorts
- 1 lightweight windproof top (windproofs tend to let more sweat out than waterproofs, reducing dampness on the inside)
- 1 lightweight waterproof top
- 1 pair waterproof trousers (optional)
- 3 pairs of boxers/briefs (the smaller the better!)
- 4 pairs of socks (using low-cut socks can cut sock-weight down by half!)
- 1 pair cycling gloves (keep your hands slightly warmer and protect your hands in the event of a fall)

The above list is definitely not exhaustive, and many items could be added depending upon your destination. For example, in colder climes I would perhaps add some more substantial gloves, thermal top and bottoms, a warm hat and another lightweight fleece or down jacket. Conversely, I would not take waterproof trousers to hot and dry countries. Finding out what works for you is part of the fun!

Footwear

Shoes take up a lot of space in your bags, so you have to be ruthless when deciding what to take. Maybe the dancing shoes can be left at home this time!

Specific touring shoes or mountain bike shoes have recessed cleats which are perfect for touring as they double up as your walking shoes as well. Buy a quality pair as you will be wearing them every day.

On top of that, a pair of flip-flops or thongs are ideal – they are lightweight and great for getting some air to your toes!

Health & Hygiene

If you are riding away from civilization, you will need to keep on top of hygiene and washing regularly for both the benefit of your tent mate, as well as your health!

Get into the habit of changing out of your cycle gear as soon as you stop for the night. At the very least, air it out as much as possible, preferably washing and drying it overnight. This is not always possible but it should be your first thought when stopping. Wind is a fantastic clothes dryer so even if there is no sun, place your washed clothes in a stiff breeze and they will be dry in no time.

Towels are again a very personal choice. A definite no-no though is the big fluffy pink one from the bathroom at home. As luxurious it would feel after a hard day's ride, it is simply too bulky for cycle touring. If you are a lightweight enthusiast then you can use a t-shirt, sarong or other item of clothing, therefore making it dual purpose.

A micro-fibre towel is a good choice as they have improved a great deal over the last few years. Make sure you buy one of the larger ones though otherwise you will find yourself trying to get dry with a handkerchief!

Always dry and air your towel as much as possible as well as giving it a proper wash at every opportunity. Towels quickly become a biohazard and a breeding ground for germs if left wet for any amount of time.

Antibacterial hand gel is a good way of killing germs when there is no soap and water. Just a small amount of this wonder gel claims to kill up to 99% of all germs, making it a handy hygiene tactic at lunch stops.

Cooking

One of the main reasons I love to travel is to eat. I adore trying dishes in far-flung corners of the world and before visiting a country, I will make a comprehensive list of local delicacies and delights to try during my trip. If I am planning a trip where I cannot afford to eat in restaurants for every meal however, I will pack a stove and some cooking equipment to keep costs down.

Stove

Choosing the right stove for a cycling trip can be overwhelming. There are hundreds of stoves out there with huge variations in weight, price, look and fuel. It is essential that you choose the right one for your trip or you could find yourself eating cold beans or forking out for unplanned expensive takeouts! Whichever stove you choose, ensure you can buy fuel in your chosen destination.

- **Gas** - traditionally, camping stoves have run on gas, which still today is a popular choice. It is a relatively clean, cheap and efficient fuel source boasting an array of stoves to use. If using for long periods however, it can become expensive and you may have problems buying it in certain areas/countries.
- **Multi-fuel** - these stoves, as the name suggests, are capable of running on various fuels. The latest ones can run on gas in addition to liquid fuels such as petrol and even diesel. They are very reliable and work in virtually all conditions. Obtaining fuel for these stoves is easier due to the variety they run on and this is much cheaper on longer trips. The downsides being they can be noisy and very dirty of using dirty liquid fuels like diesel.
- **Trangia** – this is the classic of stoves. Made in Sweden, Trangias have for years, been tested all over the world in some of the harshest conditions. They are a self-contained cooking system including all pots, pans, burner and cooker all in one unit. They can run on methylated spirits or gas (gas conversion kits are bought separately). A fuel bottle or gas canister is carried separately.
- **Solid fuel** - years ago as a Boy Scout, my Scout group leader would speak enthusiastically for hours about solid fuel or ‘hex-block’ stoves. They are much like a mini-barbeque with a chemical

firelighting block as fuel. Packed away, the stove is no more than the size of a paperback novel and is incredibly lightweight. Unbeknown to my Scout Group leader however, there are some major flaws. The firelighter is extremely toxic and burns with thick heavy smoke. There is no heat adjuster – the stove is either on full blast, or not. Although it is possible to buy replacement firelighters, the stove lasts for just one light. The Solid Fuel stove was originally used by the armed forces as an emergency means of heating water and for this application, it excels. It is however, not suitable for cycle touring.

Other cooking equipment

A saucepan/cooking pot with a lid is essential. Again, there are numerous types and designs and I tend to use a different type depending on the destination and duration of my trip. For extended cycle touring, I use a non-stick set made by Tefal. I love to cook and this allows me to rustle up pretty much any two-pot dish on one stove! If I'm going on a shorter trip, I'll opt for a simple, ultralight titanium pot and lid. However, this type of pot is not ideal for real cooking so 'boil-in-the-bag' meals are the order of the day when using this set up.

Technology

It is of course possible to cycle around the world many times with nothing more than an old fashioned map. These days however, you have the option to use GPS navigation and I highly recommend having a GPS unit with you, even if you don't use it too often. It goes without saying that you should not solely rely on this, always have a map as well and know how to use it! I generally keep my GPS turned off and use it only when necessary, say in emergencies or when my navigation really lets me down!

Fitness

Mindset and Focus

The battle for fitness is won and lost in the mind. There are many fit people in the world but what separates them from unfit people? The answer? Mindset and focus. In cycling, the ability to deal with pain and discomfort goes a long way. This may sound horrible to some, after all why do something that hurts? You will never get as much satisfaction from doing things that are easy. Only when you have pushed your body and mind will you feel an enhanced sense of achievement.

Picture the scene: you are a week into a long cycle trip and you are on a particularly tough section; your legs are stiff and you do not feel 100%; coming up is 20 miles of the hilliest part of the route. It starts to rain heavily. This is when mindset plays a huge role, you need to focus and not let your morale drop. See the positives of the situation, see the challenge and hardship as a good thing. When looking back at a trip years later you will remember tough situations fondly. It's times like this that make an adventure - yes its tough and you can end up asking yourself what the hell you are doing there, but that feeling will pass. Recognizing that it will pass is the key. The next thing you know, you are on top of the pass, the sun has come out and you have 10 miles of freewheeling ahead. You will now be telling yourself how much you love cycle touring! Take the rough with the smooth.

Many cyclists struggle with hills but the funny thing is, it is normally the thought of the ascent rather than the actual ascent which is worse. I can personally relate to this as I used to get very nervous when coming to big hills. The strange thing was, once on the hill I would enjoy it!

The following advice is what I kept telling myself to break my fear of hills:

- **Training** – You are prepared for this (well hopefully!); you have spent weeks or months getting your body ready for this exact situation. You can handle it.
- **Small sections** – Small goals, try not to look at the whole hill, just focus on the next tree or next junction.
- **Worst case scenario** – Ok you can't do the hill and you have to stop and walk. So what? Deal with it, have a rest walk to the top, jump on, and

continue your ride. At the next hill, you will be slightly fitter and it is definitely not the end of the world.

- **Learn from success** – Once you have successfully ridden some challenging hills you will realise that it can be done, and it's not as bad as you first thought. Keep this in your mind when approaching the next one.
- **Enjoy it** – This may be difficult for many to understand, but try to enjoy the experience. See it as a training session in which you will come out fitter and stronger at the other end. Once you get into the habit of 'beating' hills, you will start looking forward to them! Why do you think there are whole books devoted to the hardest hills of a certain country? Or why people flood to try and ride the hardest ascents on the Tour De France? People love hills! You can too.

In preparation

So how much do you need to prepare in terms of fitness? For some lucky people, not much it seems! Most of us however will need to follow a fairly comprehensive training regime to get the most out of a trip.

Cycle touring is unlike any other branch of cycling such as road or mountain, in that sometimes the speed you are going is slow.....extremely slow, especially when fully-laden and going uphill (which can feel like most of the time in some countries!).

Do not be fooled though; the slow, steady burn of cycle touring can be as painful as any Tour de France leg. Okay maybe not, but it is certainly comparable to a full-blooded summer sportive. It is undoubtedly an endurance event.

So where to start? As with many of these things the best training for cycling is...you have guessed it - cycling. Assuming you are a reasonable cyclist already you will need to increase mileage, increase mileage, increase mileage. Unfortunately, this is the only way to fully prepare for an extended cycle tour.

The next step is to increase the weight, dig out those old magazines, bags of sugar or whatever you can find, and start riding with similar weights to what you will be carrying on your trip. Yes it can feel stupid stuffing random heavy items into your brand new pannier bags, but trust me the benefits are worth it.

Most experienced cycle tourers will tell you about the time they started a trip unprepared and suffered halfway up the first hill because they were not used to the extra weight. Remember a cycle trip will be infinitely more enjoyable if you feel strong when riding; if you struggle, then the whole thing becomes a slog and you will wish you were anywhere else but on the cycle trip.

Build up slowly as you did with your mileage, your style and pace of riding will change when you are fully loaded so get used to it. Do not rush it. Many injuries happen when people chuck a load of weight on the bike and try and crank their way up the local hill. There will be plenty of time for that.

Do not shy away from other activities to complement your cycling. I know some of you may be shouting at the book right now saying you are dedicated cyclists and do not need to get involved in walking or swimming, but having

an all round fitness is a good thing. It is also hugely beneficial for moral and to combat boredom and saddle soreness. You may be on the saddle for days, weeks or even months at a time on your trip, so do not be afraid to mix it up a bit.

The gym should also have its place in your fitness arsenal, not just for a bad weather alternative, but for core work and leg strengthening exercises too.

Many cyclists will never set foot in a gym or lift a weight with their legs but I personally have found it to be a massive help in stabilising my knees and giving me extra power when cycle touring.

You can spend years on a nice light road bike flying around everywhere spinning furiously, never actually needing to crank hard. Then you load the bike up go on a cycle tour and approach a large hill. Everything then changes and you have to push hard, even with that granny gear!

Core stability is something all cycle tourers should be doing. Pilates may not be your thing, but that does not mean you should miss out, as there are plenty of other simple exercises you can do to strengthen your core. Every time you exercise your core or middle section, the more stable and powerful you become and the easier you will find cycling and many other activities. This is training that can give you the fitness edge over other people who neglect core stability. A simple exercise of this kind that can be performed anywhere is the plank. Get yourself into a press up position but instead of resting on your hands, rest on your forearms. Ensure you keep your body straight and try not to start sagging in the middle. Hold this position for as long as possible 3 or 4 times daily. Very easy but very effective.

Do not let bad weather or winter be an excuse for not training, it is a lot harder to get fitness back rather than maintain it. Use the gym, buy a turbo trainer, there are always options. Same to be said of winter, try to maintain fitness over winter and you will thank yourself for it come spring.

By all means cut back on the miles and allow your body to rest and recover from all the miles you've put in during summer, but do not stop completely. Maintaining fitness is reasonably easy, much easier than building fitness back up after a winter of excess!

Cycling is all about building a base level of cycle fitness which you can build upon depending on what you are taking part in. For example, if you

have a sportive or race coming up, you can build some speed and speed endurance onto your base fitness. Similarly, if you are planning a epic cross-continent ride, you will build more stamina and endurance onto your base fitness.

A good option during winter is to change your training styles slightly, so instead of putting in 3 or 4 hours on a Saturday morning, why not just 60 or 90 minutes, but ride at a higher intensity than you normally would. This not only keeps your fitness levels up, but also adds some variety to your riding.

Winter also brings with it eating and drinking urges! Who doesn't like a few pints and a pub dinner on a cold winters evening? The problem is if you cut back on your riding hours most people tend to forget to back on calorie intake! Putting on a few pounds over winter is not going to kill you and cycling is certainly the activity to get rid of it again, motivation tends to wane with a growing waistline!

Some tips to get started:

Set yourself a goal – Goal setting is a very important part of any training regime; it tracks your improvements plus gives you motivation when you reach your targets. Pick a goal that is just out of your reach, something to work towards. Do not make it too hard though, it needs to be achievable in a reasonable amount of time otherwise you will lose heart and most likely give up. A good idea is to break these up into micro goals, these could be daily, weekly or monthly.

Recovery – Even if you are super-fit, recovery plays a big role in any training program. Have rest days as and when you feel you need them. This isn't being lazy (as long as you don't take it to the extreme), this is giving your muscles a chance to repair. Eat properly after a big ride or training session, this means a high-carbohydrate, high-protein meal or supplement straight after the workout. This helps prevent muscles soreness, tiredness and makes sure you are in tip-top condition for the next ride.

Schedule your training – Start to add training to your diary, treat it as you would a date or work meeting, something that you cannot skip. Once you get into that way of thinking, it will become second nature.

Get some friends – Training with friends is a whole lot easier than doing it solo. All your friends are couch potatoes? Join a club, get down

the local gym and get new friends! Another option is to convert your friends, give them this book, you never know they may just catch the bug too.

Ride to work – If this is possible for you...do it.

Get priorities right – Do you really need to watch two hours of TV at night? Why not do an hour on the turbo trainer or better still, position your trainer in front of the TV! Go to the gym or, best of all, get out on the bike!

Mix it up – As we mentioned earlier, it's a good idea to vary your training, it will keep things fresh and keep you interested.

Stay focused – Don't beat yourself up if you miss a goal or cannot face a ride now and again. It happens to all of us. The key to it is not to punish yourself, accept it and move on. Start fresh the next day and get back on the bike!

Be honest – If your body is tired then have a day off. Don't let this become an excuse to be lazy though, be honest with yourself.

Give yourself a treat – If you are sticking to your training plan it is ok to give yourself a treat now and again.

Another strategy to help you stay focused and motivated (albeit a fairly tough one!), is to ensure your goals are publicly known; tell friends and family, post it on Facebook, tell all your work colleagues your plans. The fear of failure and embarrassment in front of peers can be a very strong motivator!

Whenever starting a training regime or even just starting to ride for longer, you need to take preparation more seriously. Warming up and cooling down is a must for long distance rides. If your legs are cold you will not be riding anywhere near your best. Personally, I always struggle for the first few miles until my legs are warmed up, and only then do I get into the swing of it. Warm up slowly; don't go hell for leather as soon as you jump on the bike.

Similarly don't just jump off the bike after going hammer and tongs for 100 miles and not move your legs for the next 12 hours. You will be sore and very stiff. Taper down in the last mile or so, take a 10 minute walk after the ride and have a stretch, your legs will thank you for it. The nature

of cycle touring is beating your legs day after day, so anything you can do to make life easier will be well worth it.

Muscles

Muscle types can be broken down into two types, Fast-twitch and Slow-twitch.

Fast-twitch muscles are, as the name suggests, produce short bursts of high intensity, for example, when sprinting. They do however fatigue or burn out very quickly as they are working anaerobically (without oxygen). Athletes in the velodrome or on the Olympic track predominantly use fast-twitch muscles. This is why you see them struggling for breath when the relatively short sprint is over, they have built up an oxygen debt which they have to repay.

Slow-twitch muscles are good at using oxygen but at a lower intensity. Marathon runners, riders in the Tour De France or cycle tourers use slow twitch muscles more frequently. These muscles work efficiently for a much longer period when compared to fast-twitch.

It is believed that you are born with a predisposed muscle fibre preference, it is why some kids can run fast and others can run a long way! That is not to say you can't improve your fast or slow twitch muscles, you should work on both types as it will make you a much more rounded rider. Improving is very simple, to work on your slow twitch, ride at a pace you can just about sustain for as long as possible. To work on fast twitch muscles, you ride anaerobically, so as hard as you can for short bursts of high intensity work.

Tapering

Tapering has become more widely used in the sporting world in recent years. Riders gradually decrease their training volume the closer to an event or long trip, ensuring they are as fit and fresh as possible at the beginning of their ride.

Entire books have been written on how to taper for an event so I won't even scratch the surface, but a few things to remember are:

- Reduce volume not intensity
- Spend 40 -50% less time on the bike
- Keep a routine going, if you ride 4 times a week, you can still

ride 4 times a week just cut the riding time down

- Don't use the extra free time to go to the pub! Prepare for your ride!
- Find out what works for you, some people need more rest than others.

This is quite in-depth stuff and don't feel you have to follow it or even understand it. Many cycle tourers do nothing more than jump on their bike and ride!

Food

Food glorious food! One thing I love about cycle touring is the eating and whilst on a trip, I eat a lot.

Maybe a qualified dietician or professional cycle trainer will disagree, but when cycle touring I crave bad food. So I eat it.

Now when I say bad food I do not mean I am eating deep fried chicken or 20 sausages a day. Sweets and chocolate? Ok yes you have got me, I eat a fair amount of sugary stuff when cycling hard, but I challenge you to find me a cycle tourer who doesn't crave the odd sugar hit when on the road. I find it very good for morale as well, spending hours in the 'zone' is good but you need little stops and treats to keep you sane. Just make the 'treat holder' the person with the strongest will power!

Food on the go

Cycling for extended periods, especially with a heavy bicycle, demands a lot from your body. In order to fulfil these requirements, it is vital that your body has the fuel inside to make your muscles work!

Little and often is something you hear a lot in the fitness world and for good reason. You should be taking on food at regular intervals of no more than 3 hours.

If you are on an extended trip or just have a big ride the following day you will need to think about 'carb loading' the night before. This doesn't mean stuff yourself silly but take on high quality slow release carbohydrates to ensure you have the right fuel for the big day ahead. On a cycle touring trip you will be doing this every day so each meal needs to have a good amount of quality carbohydrates.

If you have been following the latest diet crazes, you will know that many people see carbohydrates as the enemy. Well not here. Carbohydrates are your friend, your best friend actually. Show me someone who can do a two week cycle trip on lean chicken and salad. You won't be able to because they can't. The body needs fuel and lots of it when you are cycling.

Most sensible dieticians these days talk about a balanced diet, this is especially true when cycling. You need lots of carbohydrates to fuel your riding and lots of protein to repair your muscles.

Below is an example of two days eating when on a recent cycle tour. I was cycling around 65 miles a day on hilly terrain with a fully loaded bike.

Breakfasts

Day 1 - Large bowl of branflakes with milk

Day 2 - Two tortilla-style wraps with scrambled eggs (3)

Mid morning snack

Day 1 - Cereal bar and sweets

Day 2 - fruit and sweets

Lunches

Day 1 - Three wraps with tuna/mackerel and salad, a piece of fruit, a cereal bar and a chocolate bar.

Day 2 - Large tuna pasta salad, a piece of fruit, a cereal bar and a chocolate bar.

Mid-afternoon snack

Day 1 - Fruit and sweets

Day 2 – A cereal bar and sweets

Dinner

Day 1 - Spaghetti bolognaise with bread and butter, a chocolate bar.

Day 2 - Chilli con carne with brown rice, bread and butter, a chocolate bar.

Now I am sure Chris Hoy or Bradley Wiggins may cut out some of the sweets and chocolate, but this is a real example of what was consumed on a challenging cycle tour around the Scottish Highlands, wild camping all the way.

An important thing to remember is there are two types of carbohydrate: slow-release and fast-release. Both have their place but as you can imagine, slow-release is the bulk of what you will need to fuel your cycling.

People tend to have a ‘sugar crash’ if they consume excessive fast-release carbohydrate, which include items such as chocolate, sweets etc. Test and work out how your body reacts to different foods at different times. Head out

on long hard training rides and see what works for you.

You will notice that this is a fair amount of food and therefore weighs a lot, especially if you are carrying a few days' worth of meals. It is very important to consider how much food you will need and how much it will weigh, not to mention a stash of food that you have tucked away for emergencies.

Below is a list of ideas for food that I have used in the past.

Breakfast:

Muesli

Porridge oats (mix with fruit, nuts or honey)

Branflakes/Weetabix

Eggs (to be eaten with wholemeal bread or wraps to up your carbohydrate intake)

Wholemeal rolls/Wraps with Honey/Jam/Peanut butter

Lunch:

Wholemeal bread/wraps/pitas with meat/cheese and salad

Pasta salads

Evening Meals:

The choices here are endless. Always ensure it is a balanced meal with good quality carbohydrates (potatoes, rice, pasta etc), lean protein (chicken, turkey and fish) and vegetables or salad.

Snacks:

Good quality cereal bars, nuts, flapjacks, sandwiches, fruit, chocolate, sweets and granola.

Many people in the road biking world, including myself, use gels and high energy drinks to fuel a race or sportive. However I very rarely use them on cycle touring trips. They are better suited to high intensity work where their convenience is a real asset (this is not to mention the cost of using gels for a two-week trip)!

There are few times in your life when you can shamelessly indulge in all types of food. If you are cycling every day, you need this extra food for energy. On an extended trip to Australia in 2005, I actually found it difficult

to keep up with the amount of calories I was burning and in two months lost a dramatic amount of weight.

One last word of advice – upon returning to the ‘normal world’, be aware that your metabolism will still be high but as your body gets used to not cycling every day it will slow down. Stop eating! If you continue the sort of diet you followed when cycling hard you will soon be the size of a house.

Hydration

Keeping hydrated whilst cycling is essential. Depending upon the environment, you could be drinking up to 10 litres of water every day. This sounds like a lot and it is, but includes water from hot drinks and food too. This is an extreme example and only really applicable when working hard in very hot environments.

I cycle with two bike-mounted 800ml bottles that are easily accessible whilst riding. In my panniers, I also pack a three-litre collapsible water bottle. This is rarely filled but is a means of carrying water if I know it won't be available before the next overnight stop. It is also very handy when looking for a wild camp spot if I suspect there won't be water available overnight. Depending on the conditions, I can always double up on these 3 litre collapsible bottles – after all, they take up very little space in my panniers and are very useful.

Always begin your ride hydrated. Do the pee test: if your urine is clear or very pale yellow then you are ok, the darker it is, the more dehydrated you are. It is especially important when cycle touring as you may just crawl out of your tent have a quick bite and jump on the bike. Try to have a litre of water next to you in bed, then upon waking, drink as much as you can and then the rest during breakfast. It may feel like a lot at first but it will do you good. The best place to carry water is after all in your stomach!

Where to Stay

Where to sleep on your trip is a very broad question. Some of you will be happy bunking down in a ditch with nothing more than an old army bag for comfort whilst others I am sure will find that situation too horrendous to even contemplate.

Most cycle tourers are a resourceful and hardy bunch and understand that some things just do not go to plan. You get your 6th puncture that day, take a wrong turn or are just extra tired and do not make your planned stopover. Depending on exactly where you are things can get spicy. What was a scout's motto again?

Always have a backup plan - what if my bike dies here, what if my knee goes, what if, what if. Although this can seem like negative thinking, it can really save your bacon if you had thought ahead and brought your lightweight bag and tarp.

Ok, let's have a look at the standard options:

Wild camping

The cheapest by far no doubt, also the most adventurous. It does have down sides though.

A big one is that not everywhere allows it. Make sure you check the country or area laws to ensure there is no rude awakening in the middle of the night by the long arm of the law. Not what you need after 70 miles in the saddle.

Facilities. Yes this is stating the obvious but wild campsites have no toilets....or showers....or ...well anything really. This can be fine for most people for a night or two, but can really become an endurance exercise after a while.

There is also the safety aspect. In most countries, problems are very unlikely but again you should always have in mind your options. Wild camping on the outskirts of Mogadishu might not be a good idea....but then again I don't think the B&Bs are much better! I am sure you get the idea though.

Wild camping is certainly the purest cycle touring experience. If you love the outdoors and nature and don't mind smelling a bit more than normal, it

can be a fantastic experience.

Two very important things to consider when wild camping apart obviously from safety, are food and water. Do have enough supplies to keep you going until the next resupply point? Food and water are the fuel for any cyclist, without them you will not be cycling anywhere. No exceptions.

A good thing to do is to keep a day's emergency food in the bottom of your pannier bags. It doesn't have to be fancy, just a few packets of dehydrated camp food or some boil in the bag-style affair. Some sugary snacks/sweets and chocolate are a good idea as well and not just for the little energy lift - they also bloody good after a hard day in the saddle! Morale is very important on a long trip and the little things really do make a difference.

Water is something you will think about a lot when cycling, even more so if you are wild camping. You need it to drink, to cook and to wash with. If you see water and you know you are wild camping, or even if you are unsure of where the next supply might be, fill up. On occasion I have made the mistake of thinking I had enough then the sun rose, the hills got steeper, and my water ran out. I bonked, big time. I had no energy at all and could not go faster than a few mph.

Last but not least is to leave your wild campsite as you found it, take all rubbish with you, no matter how small and 'degradable' you believe it to be.

If you have a fire then ensure it is properly put out and the ashes dispersed adequately. Do not skimp on this part, some countries have huge problems with forest fires and it destroys whole communities. Do not take a chance, if in doubt save the campfire for another time.

Campsites

Using campsites is a great way to cycle tour. It is cheap, you give back to the community by helping local businesses, and it still feels like an adventure.

There are still many considerations to think about, weight is one, which also applies to wild camping. You will need a fair bit of equipment when sleeping in nature!

Tent, sleeping mat, sleeping bag, cooking gear, the list goes on and on.

This is a lot of extra weight to carry, especially if you are riding solo. Make sure you prepare carrying similar weights throughout your training, as

two days into your trip is not the time to discover you have too much weight!

Not all campsites are born equal - some have a clubhouse, a swimming pool and a supermarket and some have...well nothing! Many campsites consist of nothing more than a piece of land to pitch your tent on. Make sure you know what facilities your campsites have before getting there, that way you will know exactly what provisions to have with you. Nobody likes nasty surprises after a long day in the saddle.

It is always best to phone as far ahead as possible to avoid any disappointments. Campsites come and go and you do not want to turn up to one that has gone.

Ask the campsite exactly what facilities they have and do not be scared to ask for information. They are a fantastic source of local knowledge, so use them.

Health and Hygiene

Showers

If you're staying in hostels, hotels, or at designated campsites, showering is rarely a problem. Whilst wild camping however, it can be an issue.

For this reason, I cycle with a collapsible bowl and a small flannel. Through years of practice and refinement, I have mastered the art of the all-over wash using only these tools. I can even perform this essential act in the confines of my tent and it is surprising how little water is needed. In colder climates, I'll heat a little water on my stove to take the chill away.

I wouldn't recommend washing in rivers and lakes as your soap, toothpaste and whatever other beauty products you may use, contain harmful chemicals (even if it claims to be 'natural' and 'environmentally friendly') that interfere with the environment. In some places, local communities also rely upon natural water sources for drinking further downstream. A more environmentally friendly method is to take water from the source, wash a minimum of 50 metres away then spread the waste water around to allow it to filtrate through the ground before returning back into the stream.

Shorts

A big problem for many cyclists is saddle soreness. If you tend to suffer on training days then it can turn into a huge problem when riding on a multi day trip. A few things you can do to try and minimise the problem:

- Buy quality shorts. Cheap ones are cheap for a reason.
- Chamois cream. A strange concept for most people, but a necessary one for many long distance cyclists. Apply the cream to your 'sore bits' and feel the instant relief!
- Ensure your bike is set up correctly; un-natural saddle pressure points can turn into a real pain.
- Wash your short regularly. Dry them overnight or tie them to your rack to dry when riding. When you get into camp take your cycling shorts off and change into something clean and fresh where possible. You need to air your shorts and your bits!

Techniques

Navigation

As touched on earlier in the book, navigation can be much simpler these days with modern technology but that does not mean you can leave the maps at home. GPS systems are computers and computers don't always work.

Take maps with you wherever you go and look at them each night and work out where you are going, things you will pass and how long it should take you. Tick these things off in your mind as you cycle, this way if your GPS does have a breakdown you should still have a good idea of where you are and where you are going.

Riding Skills

Climbing hills

Hills are a big factor when cycling, many love them, many loathe them, either way they are unavoidable on most longer cycle touring journeys. Attitude is the deciding factor when riding hills as I discussed in the mindset section.

Weight and power-to-weight ratios play an important role in climbing, the higher power-to-weight ratio you have, the better you will be at climbing. It is why professional cyclists are always trying to find that magical balance between having the lowest possible bodyweight but also keeping the highest possible power: it's a tricky balancing act.

When cycle touring you do not have the luxury of just riding the hill with your bodyweight, you will have your kit and if it is a longer trip, the weight can be substantial. You normally have a lower gearing ratio (also known as the granny gear!) than many other standard road bikes so this can be a big help. However, technique is slightly different when you are fully loaded, especially on the steeper sections.

On a road bike with no rack you can climb steep hills out of the saddle (standing up), and really put some force through the pedals. You have seen the professional guys going up that 20% incline in the Alps with the bike swinging left and right as they give it everything, right? Unfortunately when loaded you need to be a touch more graceful! If you start leaning the bike left and right you can quickly become very unstable due to the weight at the back and/or front. Two things can happen: you can fall off, or worse, due to the unnatural forces on the bike, something can give. This is normally a rack, bag bracket or spoke. Either outcome is bad.

So what to do? You can still climb standing up but you must try and keep the bike upright with as little lateral movement as possible. It is difficult at first but you will get the hang of it. All this said, with the lower gearing and lower speed, you generally ride when cycle touring, climbing out of the saddle is really only for the very steepest sections. I personally stay seated for 98% of the hill climbs.

Starting from the beginning then, as you approach a hill try and use your momentum as efficiently as possible, don't start fumbling for gears too early as you will lose speed and make the climb harder for yourself. Ensure you are

in the correct gear as early as possible and as you hit the hill, stay with your high cadence and change smoothly through the gears as the incline increases. The key is to keep leg speed as constant as possible, if you feel your legs slowing then change gear, your bike will slow because of the lower gears but that is to be expected. Just concentrate on keeping your leg speed smooth and constant. You will then find a 'bite' point where you will stay so try and get into a rhythm.

Try different hand positions to see what feels best, just remember that being hunched over in the drops is likely to hinder breathing, and breathing after all is rather important!

Use different pedalling techniques to improve the efficiency of your stroke - just changing the angle of your foot can make it feel easier. Try pushing through your heel or pulling back with your toes, as if you were wiping your feet on a mat. It is perhaps stating the obvious, but pedalling is a circular movement that has push and pull movements - so use them.

All you can do now is focus, grit your teeth and push on! It does hurt, your legs will be screaming, but it is short lived, and the more you feel that pain in your legs, the more you will realise how quickly it goes.

What goes up must come down!

It's what makes the ascent all the worthwhile; coming down is many people's favourite part of cycling! Unfortunately, it tends to be over all too soon!

The fun side apart, it can be extremely dangerous if not done correctly and calmly. A fully loaded bike can pick up speed very quickly and it doesn't matter how good your brakes are, if you are going at 50mph (which are speeds you can reach on certain sections) you are not going to stop easily. If something jumps out at you or you don't see it, there is no emergency stop - you will hit it!

Hitting the brakes hard when going downhill at speed will likely put the bike into a skid, which will mean you will lose any control you had to start with. Prevent any skidding by slowing down gradually. Use brakes to control speed rather than hitting hard to come to a complete stop. You can also assist slowing down by using wind resistance; if you have been keeping a low profile then sit up tall, you will be surprised how much this slows you down. If you do not have a clear view ahead then slow right down, it is not worth

the risk.

On a fast descent keep your body low with your weight over the back of the saddle and the pedals level with each other. Keep the weight through your pedals with your knees bent and relaxed, this will act as suspension and help to soak up any lumps and bumps in the road. There should be hardly any weight through your arms. Make sure you keep your head up and eyes looking ahead so you can see any dangers and corners. Focus on staying relaxed rather than focusing on dangers or what might happen if you took a fall as thinking about these things can make you tense up and in an ironic way, make these things more likely!

Enjoy it!

Wind resistance

The wind can be a real killer when riding. Well not literally, it can really sap your energy and morale though. There is nothing worse than rounding a corner to see a stretch of road extending out as far as the eye can see only to be hit with what feels like a hurricane coming at you.

It's amazing what a stiff breeze can feel like when you are pushing into it. You will now understand why professional cyclists spend countless hours working out the best aerodynamic positions for riding.

It is especially hard for cycle tourers due to the luggage loaded onto the bike, the bags catch the wind like a sail! Unfortunately there is nothing you can do about this but you can do some other things to make life slightly easier.

Streamline your body – I am sure you have seen all the professional cyclists who seem to be crouching over the handlebars? They are streamlining themselves to reduce wind resistance. You don't have to go to their extremes but dropping your hands into the drops and keeping a relatively flat back can really help.

Help each other – If you are riding with others, take turns at the front with the others tucked in behind single file. It is the same tactic you see on the big road races. The rider at the front forces their way through the air whilst the other rider(s) quickly follow with a far less wind resistance. It is how a sprinter like Mark Cavendish can ride the wheel of other riders for 100 miles, then jump out and sprint the last 100m winning the race. The guys at the front are working around 30% harder than the guys behind to maintain the same speed. This tactic really works so make use of it.

Treat it like a hill – Go into a lower gear and get a good rhythm going and pretend you are on a hill!

Conclusion

Cycle touring has been a part of my life for many years now and as I write, I am busily preparing for my next trip. I am not overstating when I say it has totally changed my life. I have seen new places, eaten copious amounts of glorious food, met some positively wonderful people and kept extremely fit in doing so. Surely it doesn't get any better!

I truly hope this book gives you the bug and that you'll be out exploring soon, whether it's a weekend jolly or a round-the-world epic. The crux of cycle touring is here, but some things have to be experienced to be believed.

Ride on.

Cycling Guide – Beginners Book on Training, Nutrition, Equipment and More

Introduction

Cycling has become one of the most popular sports on the planet. It is a low impact form of exercise and a realistic physical activity for a broad spectrum of people.

There are many disciplines of cycling, from mountain to track, road to tandem, each with unique appeal. In this book we discover why it has become so popular, the benefits of cycling over other means of fitness, how to structure, monitor and maintain cycling fitness, what equipment and clothing you need, and where to take your cycling next.

Benefits

There are some obvious benefits to cycling – it can improve your fitness, reduce stress and help you lose weight.

There is said to be far less pressure put upon on the knees whilst cycling in comparison with other means of exercise. Compared to other activities, cycling is considered to have a low impact on your joints. This means that it can be enjoyed at any stage of your life. It is also excellent if you are coming back from an injury and cycling is regularly used as a means of rehabilitation.

Why do you want to train?

There are countless reasons for wanting to better yourself and to train hard physically. We explore just a few of those reasons below.

You want to get fit whilst travelling

The popularity of cycling long distances has become increasingly popular in recent years. It is undoubtedly a fantastic way of travelling – it is very green (the only fuel burnt is your food!) and incredibly healthy. Perhaps you're set on completing a self-supported cycle around the world, or you're undertaking a gruelling twenty-four hour challenge. Alternatively, you may

just want the chance to travel in style! With the growing number of dedicated cycle lanes and routes throughout the world, there is simply no better way to travel!

You plan to compete in a race or sportive

Many years ago, I decided to enter some cycle racing events. This would involve taking my training a little more seriously and I had to set goals and push myself further than I had ever done before. However, at this point my riding had no structure and I became frustrated at how little my fitness improved. Entering racing events is an excellent way of taking your riding to the next level and pit yourself against others. If nothing else it is a perfect way of experiencing riding as a group.

To cut down on transport costs

As anyone living in a big city will profess, using public transport is very expensive if you are to use it as a daily means of commuting. Rising costs, tough financial conditions and crammed trains are enough to drive you crazy (no pun intended). Cycling is always an option to cut down on your costs, even if you cycle for only a portion of your commute. If you are going to rely on your bike as a means to get to your place of work, it is essential that your new engine is in top condition and you are in the best shape you can be, especially if you live in a place where it rains regularly! In fact, research has shown that for many cities across the world, it is easier and quicker to cycle commute to work. Some countries have also introduced cycle-to-work schemes as a way of encouraging employees to make the step.

For a fitness routine

We are human beings, and human beings like routine (well most of us!). Having a fitness structure can be the catalyst needed to get you fit and maintain that fitness. Cycling improves your all-round fitness, increases strength and endurance, and is also a lot of fun!

To lose weight

Cycling for just half an hour can burn up to 700 calories! Cycling for long periods can be maintained without your leg muscles getting tired, and if you want to push yourself and burn more calories, you can simply add some more

hills to your rides or pedal harder. In addition to raising your heart rate and strengthening your respiratory system, cycling works the major muscle groups in your legs and can also work your arms and torso. By putting the majority of your weight onto the bike, cycling is less demanding on your joints and can be far more comfortable than running.

To monitor your fitness

You can record and measure your levels of fitness without expensive equipment and testing in numerous ways. On a very simple level, if you already have your bike, all you really need is a stopwatch that you can record your times on a specific route. Make a note of these times and you can see if you're getting faster and making progress as you become fitter.

In these modern times, this is merely the tip of the iceberg. There are countless cycling and fitness 'apps' for Smartphones which can plan and record your rides, give data on timings, distances, calories burnt, elevation gain and even heart rate. With this level of data, it is incredibly simple to keep a track of your training progress and plan ahead.

A more expensive option is to buy a cycling-specific GPS which can record all of the above. They can be bicycle mounted which is very handy whilst on the bike and of course they tell you where to go!

To meet new people

As the popularity of cycling escalates, there are more people, groups, societies, forums and more opportunities to meet people. Cycling is a very sociable sport in all disciplines and it can be a great way of meeting like-minded people to spend time with. Clubs are sprouting up everywhere, with weekend gatherings, social events and even races and time trials – plenty to sink your teeth into!

You simply like to keep fit and love cycling!

And why not?! This was certainly the first reason I began cycling. Having ridden all my life (well as far back as I can remember!), I cannot think of going for more than a couple of weeks without going out for a ride. It gets into your blood, it takes hold of you and keeps on delivering – there are endless routes and destinations to experience. You could say I'm obsessed

(friends and family certainly do), I just think I'm very passionate. The point is, cycling is the perfect excuse to keep fit, meet new people and enjoy life!

Mindset

Getting fit was never meant to be easy. Sure, some people have an innate ability to gain and maintain fitness, but there are too many variables involved to make it an exact science. When we see professional athletes at work, we merely see a snapshot of their plight to succeed. Hours, days, weeks, months and years of training in the lead up to an event is the reality. To sustain such dedication and drive, it is essential that they, and you, have the correct mindset. Entire books have been written on sports psychology and how to harness the right mindset for sporting success, needless to say that is beyond the scope of this book. However it is something that should be studied in detail if you are pushing for success in any field.

Mental focus

Having the mental focus to train regularly and to push yourself hard enough to see real gains in any sport can be incredibly tough. A simple technique is to try and incorporate your training into your normal routine, make it a normal part of your life. This can take time but once it feels a part of your day-to-day routine, it is much easier to incorporate it into your life.

Nutrition & liquids

If you are serious about cycling fitness, your diet should play a pivotal role in achieving your best performance. Get your nutrition wrong and you could end up getting the odd ‘bonk’ (a total depletion of glycogen resulting in a performance breakdown), or at the other end of the scale, you could do your body some serious damage.

Your nutrition will very much depend on your reasons for cycling. For cyclists who wish to push themselves and train hard for an event or race, nutrition must be seen as giving fuel, to anticipate the inevitable losses of training and compensate with a balanced yet plentiful diet. If you are looking to lose weight or to just achieve a comfortable level of fitness, you still need to pay attention to your diet, eat healthily and cut out the ‘bad’ foods.

The bottom line is that nutrition should not be underestimated and you should pay as much attention to what you fuel your body with, as the training itself. I tend to think of it as doing exactly that – I am training my body on my bike as well as with what’s on my plate.

Fluids

Without liquids, your body will simply not function. Whilst cycle training, taking on the right amount of fluids, at the right time, is essential.

So how much is enough? It is impossible to place an exact amount on this as it will depend upon variables such as training intensity, climate, pre-hydration levels, to name a few. The best advice is to always begin a ride well-hydrated. Continue to drink regularly throughout your ride and try to avoid getting ‘dry-mouth’ as this is considered a late indicator for the need of fluids. Remember to continue drinking once you have finished your ride as your body will still be catching up on fluids lost through exercise. One of the best ways of determining whether you are sufficiently hydrated is by the colour of your urine – if it’s dark yellow, you need to drink more, if it’s a straw or champagne colour, you are well-hydrated.

Balanced diet

The term balanced when it comes to diet is ambiguous at best. I have always been lucky with regards to metabolism, I have always been able to eat

as much as I want, whenever I want. I know what you're thinking, that sounds like a perfect scenario! However, making the jump from being able to eat whatever you like, to a strict regime is tough, no matter how lax your background boundaries have been. Luckily, most training cyclists need to consume a large amount of food, although it still needs to be the correct food.

Proteins

Replacing proteins is essential. When exercising hard, your muscle fibres effectively tear. Your body's reaction is to begin repairing these tears straight away, and it needs protein in order to rebuild. When the tears are rebuilt, they are stronger.

I was vegetarian for two years and struggled to manage my protein intake. I was playing every card in the book, eating nuts, eggs, pulses, cheese, anything with a modicum of protein. It simply wasn't enough and I realised that I would have to do something differently to up my protein intake. I did some research, decided on giving protein shakes a go, and have never looked back since. They are relatively inexpensive, easy to get hold of, and most taste great (unlike when I started using them)! It is definitely worth finding out what quantities you will require for your training plan. The best place for this is either a gym, the shop in which you buy your shakes, or the manufacturer of the shakes themselves.

Some sources of high-protein include:

- Chicken
- Turkey
- Beef
- Pork
- Fish
- Eggs
- Yoghurt
- Nuts
- Pulses
- Beans

- Tofu

How much protein you will need is dependent upon your training goals, body mass, training intensity and body-type. Consult a qualified nutritionist to seek further details of exact amounts of protein required. As a rough guide, if you are training regularly, you should consume between one and two grams of protein per kilogram of bodyweight per day.

Carbohydrates

On a very simple level, your body converts food into glucose (blood sugars) and this is the energy we need to power our muscles. Different energy foods are classified by their position on the glycaemic index (GI). This GI rating gives an idea of the effect each food type has on the body's energy levels over a two-hour period.

Carbohydrates have received much criticism lately with many wonder-diets advocating against them. As a cyclist however, you will soon come to realise that carbohydrates are your friend. They are essential in providing your body with the fuel required for cycling.

It is important to understand the different types of carbohydrates and what affect they have on your body.

- **Complex Carbohydrates** are found in pasta, rice, breads, cereals, grains, potatoes and vegetables. These are also known as *slow-burn* carbohydrates as they take time to break down and therefore fuel your body for longer.
- **Simple Carbohydrates** include sugars found naturally in foods such as fruits, vegetables, milk and other milk products. They can also be sugars added during food processing and refining. The difference is that the latter have less nutrients than the former.

In short, complex carbohydrates should make up the bulk of your energy as it gives sustained, slow-release energy. There is still a place for simple carbohydrates in your training diet, but they should be seen more as short-term booster whilst riding.

Fats

Perhaps with more justification, fats receive a great deal of bad press. All

we hear about is how bad fats are and how they should be avoided at all costs. What is less commonly understood is the difference between a '*healthy fat*' and an '*unhealthy fat*'.

- **Healthy fats** – also known as monounsaturated, polyunsaturated or Omega-3 fats. These can be found in olive oil, avocados, most nuts, peanut butter, soybean oil, walnuts, fatty fish (mackerel, salmon, tuna, sardines), soymilk and tofu.
- **Unhealthy fats** – also known as saturated or trans fats. It is found in butter, margarine, cheese, lard, ice cream, whole milk and fried foods. Chocolate, pies, biscuits and pastries all contain these fats. Eating too many saturated fats can increase cholesterol levels and increase chances of heart disease.

The really good news is that as you become fitter, your body becomes far more efficient at burning fat. It is essential however, that you replenish your depleted fat reserves with enough healthy fats. Snacking on olives, adding nuts to evening meals, eating avocado and having oily fish three times a week can really make a difference.

Contrary to popular belief, the healthy fats above will not make you fat. It will in fact allow you to ride for longer and stay hunger-free for longer, therefore allowing you to burn more calories.

Fruit and Vegetables

Fruit and vegetables are an essential part of a balanced diet. It is recommended that it makes up around a third of your daily intake. They contain vital vitamins, minerals, antioxidants and fibre, which dramatically improve your general health and immune system, boost your energy levels and can even protect against chronic diseases. Incorporating portions of fruit and vegetables into main meals is important but some other methods could include:

- **Smoothies** – blending weird and wonderful concoctions of fruit (and vegetables!) can be a lot of fun, extremely convenient and tasty
- **Baked crisps** – there are plenty of brands offering fruit and vegetable crisps that have been baked and are far healthier than their

fried counterparts

- **Snack on raw vegetables** – boiling or steaming vegetables can deplete the goodness they offer. Instead, cut raw vegetables into strips and snack away
- **Dried fruit** – this healthy snack is super handy, packed with energy, compact and healthy – perfect
- **Fruit juices** – there is a vast array of fruit juices available but ensure that you read the nutritional information – many contain large amounts of added sugars and sweeteners

Supplements

There is a vast array of energy drinks, gels, powders and bars on the market which can be rather overwhelming. The quality of these products has increased dramatically in recent years and now there are products to suit everyone's tastes.

Taking energy drinks or gels can be beneficial and essential for some riders. For example, if you are in a 75 mile race and are riding hard, you will need to replace the carbohydrate you are burning otherwise you will quite simply run out of energy.

The convenience of these supplements make them hard to ignore but it is essential you follow the manufacturer's instructions to ensure you get the correct product at the correct time.

It is important you are comfortable with any supplements before using them for a big event or trip as what works for one rider may not for another.

Processed food

These are foods that as the name suggests have been 'processed' or made in a factory. The best course of action here is to avoid anything that falls in to the 'processed' food category.

Technique

Cadence

The cadence at which you pedal is the number of revolutions your front chainring completes per minute (rpm). This varies dramatically between riders but a good average cadence to aim for is between 85 and 95rpm. Here are some general cadence tips to get you started:

- *Choose the right gear* - By choosing bigger or easier gears, you are creating less stress or torque, allowing you to ride for longer. Conversely, a smaller or harder gear resulting in a slower cadence will limit the amount of time you can pedal.
- *Avoid bouncing* – If you find yourself rocking or bouncing on your saddle, slow down your stroke, adjust your gears, and try again.
- *Smooth revolutions* - There is no point in having your feet attached to your pedals if you are not going to maximise their potential. Pushing down as well as pulling up, and practicing making your revolutions as fluid as possible is time well spent. On the upstroke, it should feel like you are scraping mud from the tip of your shoe. Making the transition between the upstroke and the downstroke is undoubtedly the hardest part, and the required fluidity and efficiency of each stroke takes time and practice. Be aware also that for some riders, their efficiency is reduced by actively pulling upwards at the back of the pedal.

Managing a consistent cadence that you are comfortable with is important but this will take time and experience for you to find what is right for your particular riding style. For example, some professional riders will have a fast cadence in an easy gear on flatter terrain, whilst others prefer a slower rpm in a harder gear. Unfortunately there is no one-size-fits-all to cadence, but finding what is best for you, on a variety of terrains, is essential.

In and out of the saddle

There is a school of thought that suggests that riding out of the saddle, or standing up whilst riding is less efficient. It's worth pointing out however, that not all of us are super athletes and riding out of the saddle is often through necessity, not choice! That said you should always try and stay in the

saddle for all but the steepest of hills. Sometimes standing will just give you that extra power to get over the crest of the hill and get some momentum for the descent.

The key to tackling a big hill is to ensure you change gears effectively when approaching to ensure you use your momentum to get the best start, then try and maintain a good rhythm and breathe! Just like any other discipline, hill climbing can feel hard at first. However, the more hills you cycle, the easier they feel and the more efficient you will become.

Aerodynamics

When cycling, over 80 per cent of your energy will be expended merely pushing air out of the way. This means that the more aerodynamic you are, the more efficient you are. When riding downhill for example, adopt a low brace position, rounding your shoulders down, tucking your elbows and legs in, and lowering your head as close to your handlebars as possible. This will allow you to cut through the air with more ease and ultimately make you more efficient. Wearing close-fitting clothing and minimising drag by excessive material can undoubtedly help and you'll be surprised at how much difference it makes.

Aerodynamics when riding is something you can actually feel in action. If you are riding a bike with a more 'upright' position, try riding for a while with your head forward with a 'flat back' in racing position. You will notice immediately how easier it becomes. The difficulty is holding this 'racing position' for any length of time as it can be extremely hard and uncomfortable, especially if you are not used to it. You may notice that elite riders on the television have an incredibly aerodynamic position. Try cycling into a headwind and trying different body positions and see the difference they make.

Warming up & warming down

Cyclists often neglect stretching but, as with any other exercise, it is a vital element of effective training. There is much debate on whether to stretch before or after exercise. The general consensus is to ensure you have a thorough warm up and cool down with stretching taking place at the end of the exercise. It can also reduce your chances of getting injuries and pulling muscles.

It is widely advised that effective stretching always takes place on warm muscles. Below are some suggested stretches which can perform 'on-the-go'. With each of these stretches, it is vital that you ease into them slowly and never 'bounce' into them, as this can cause your muscles a great deal of damage. You should feel a mild, pleasant stretching sensation which at times may be slightly uncomfortable but your stretches should not hurt.

The amount of time you hold a stretch is also open to debate the general advice is the longer you hold the stretch for the better.

The quad-stretch. This can be performed standing on one leg or lying on your side. Performing this stretch standing on one leg has the added benefit of strengthening some infrequently used foot muscles. Place one hand on the front of your ankle, bring your heel to your bum and gently drop your knee until you feel it stretch your quad. Roll your shoulders back and draw your shoulder blades together, opening your chest. Hold this stretch for 20 - 45 seconds, slowly release, then swap legs. This is a common stretch which stretches your quads but can also release back tension.

Bums and hips. Stretching your gluteus maximus (bum) is often neglected in cycling warm ups. However, it provides much of the power behind each pedal stroke so stretching it properly is crucial. It is important not to damage your knee during this stretch, so ease into it very slowly. You can also use your bike to balance yourself on this one. Face your bike side-on and grab the handlebar with one hand and your seat with the other. Place your feet a hip-width apart, bend the knees slightly as if to sit down, then slowly bring one leg up over your opposite knee as if crossing your legs. If you can feel enough stretch, hold it for 20 - 45 seconds, gently stand, then swap legs. If you need more, slowly sink deeper into the squat and hold.

Right angle stretch. This stretches your back, shoulder muscles and hamstrings. Stand facing your bike sideways on and move away from it slightly. Now hold the handlebar and seat, bend at the hips, keeping your arms and back straight with your head looking at the ground. Your hips should be bent at right angles and you should feel your hamstrings stretch. Hold for 20 - 45 seconds, then to exit this stretch, bend the knees and slowly walk towards your bike.

Warming down after a ride can help to reduce aches and pains, helps in the removal of lactic acid, and can aid recovery. A short, easy ride is a good way to begin your cool down. Then, starting at your ankles, stretch your way up your body systematically ensuring that no muscles are missed.

The training plan

Using a Training Diary is a great way of keeping track of your progress. This can be done in various ways. Some websites (www.bikeradar.com) offer a training account, which logs your routes, times, set goals, and you even compare yourself with other users.

Some prefer to log their rides with good old-fashioned pen and paper. Although this can be more work on your part, there are some advantages of doing this - having a tactile chart that can be pinned up on your fridge for everyone to see is one! Some people also prefer to have their data in one place to get an overview of their training.

For further training plans and resources, visit <http://training.bikeradar.com/plan/premium>.

Strength training

It is a cliché, but the best training for cycling, is cycling. There is simply no substitute for getting out there on your bike and experiencing the reality of what you're training for. There are however benefits for doing exercise other than cycling which will improve your core strength and contribute to your overall cycling fitness.

Training indoors

For many of us the idea of putting on cycling trousers, overshoes, a rain jacket and suffering a freezing nose and chilly knees is not an image of fun. Riding in the winter is tough, and undoubtedly brings a whole new set of rules. You may live in an area where treacherous snow and ice will thwart your training aspirations. However, in order for you to maintain the fitness you have worked so hard over summer achieving, you will have to pedal something, somewhere!

Before you go out and buy an expensive exercise bike, spinning machine or any other stationary bike, consider the relatively new concept of an indoor trainer. These compact, inexpensive machines are quite simply superb.

Some of the benefits of indoor trainers:

- You can train in your home. Clear a space in front of your television set up your home trainer and have your very own gym in the comfort of your living room (I have spent innumerable hours on my turbo-trainer watching the Tour de France and at times have pretended to be there, riding alongside my heroes – sad, I know!)
- They are usually more compact and storable than a conventional stationary bike
- You get to ride YOUR BIKE. This is invaluable as getting back on your regular bike after winter months spent on an exercise bike can be a big shock
- It is easy to monitor progress as there are very few variables to account for – duration and intensity

Broadly speaking, there are two types of home trainer: turbo trainer or

rollers.

Turbo Trainers

A turbo trainer is essentially a small device which keeps your back wheel off the ground but offers resistance, therefore simulating riding on the road. Friction on the back wheel is created with air, magnets or gel. Most turbo trainers have a remote control system whereby the resistance can be altered according to the users' needs.

Rollers

Your bike is ridden on three parallel barrels or rollers held together with a frame. Resistance can be altered due to the riders' needs. These take far more skill to operate but once mastered, they offer a more realistic riding experience.

Costs vary greatly, with the cheapest turbo trainers costing around £100 (\$150) up to the most expensive roller systems costing up to £1500 (\$2400)! I have tried numerous trainers over the years and firmly believe that some of the cheaper turbo trainers on the market are perfectly adequate for winter training. The quality and sophistication of some of these cheaper models is outstanding and you should easily be able to pick one up for around £150 (\$240).

I would far prefer to ride my bike outside in the fresh air but that does not mean that a home trainer should be used exclusively in the winter months. On wet days or when you are short of time, it may be far more beneficial both physically and mentally for you to jump on the home trainer for a session than going through the rigmarole of going outside.

Other possibilities for training over winter can include circuit training as it will improve your core strength and increase cardiovascular fitness. The popularity of this type of exercise is booming and you'll find it offered, particularly over the winter months, at many gyms throughout the country.

As with any training, it is essential you allow your body to recover and leaving 24 hours recovery time between gym sessions is advisable. It is possible to sequence your training, focussing on different areas of the body on each day. For example, you could exercise your upper body in one

session, your lower body in another and your core/upper body in the next.

Equipment

The bike

Buying your first bike can be overwhelming as there are hundreds of variables. Doing your homework is essential but luckily, there are plenty of resources available online. I would also recommend visiting your local bike shop as they will take into account your individual needs with the added benefit of being able to try some bikes out for size!

What type of bicycle do I need?

What cycling are you planning on doing? If you go out once a week for a couple of hours then you are not going to need a full carbon, all singing, all dancing model. If however you are cycling a few times a week then with a club at weekends, spending as much as you can afford is more justified.

Get advice and second opinions before you settle on buying a bike. Talk to your local bikes shops but remember they will always be biased to the models they have for sale!

If you are new to riding then it's probably not a good idea to get that top end model quite yet, get something a little more modest, then if you are sure cycling is for you then you can upgrade. It will also give you a greater understanding of the type of bike you want.

How much do I need to spend?

The golden consideration when deciding how much to spend is - you get what you pay for. Whilst the frame, wheels and saddle may be excellent, of equal importance are the components on the bike. This can make things even more confusing as there are many brands, models and types consider. The best way to get the correct bike for your needs is to visit a quality bicycle shop where you can get advice on what bikes are within your price range for your intended use.

Remember to budget for accessories too, especially safety accessories such as a helmet, lights and a good quality lock.

Colour

Don't believe people who say that 'go-faster-stripes' work. Whilst the colour won't affect the speed and efficiency of your bike, you want to look good don't you? If you're serious about training, it is essential that you buy a bike that you like the look of. After all, it's a lot of money to spend on something you dislike visually and will inevitably be spending a lot of time looking at. Obviously the fit and quality of the bike comes first and bike aesthetics second, but new bikes lose a lot of value once they leave the showroom, so spend some time weighing up your options!

A helmet

Whilst you will invariably see riders without helmets, I personally have never ridden without wearing one as I feel the benefits far outweigh the disadvantages. With the fantastic range of helmets on the market today it is possible to choose one that perfectly suits your needs and budget. When choosing a helmet, you may wish to consider the following:

- It should be marked with your country's certificate of standards. For example, all cycling helmets in Britain should be marked with BS EN 1078:1997, a standard that is required by law. If in doubt, contact the supplier.
- Always try before you buy - I have made the mistake of ordering online and wasted money on sending ill-fitted helmets back only then to purchase a helmet from my local bike store. When sizing your helmet, ensure that it is snug (but not too tight), positioned squarely on your head and is not exposing your forehead by being tilted too far back.
- The strap should fit underneath your chin without being too tight or too loose. You should be able to fit two fingers between your chin and the strap.
- It is recommended that you replace your helmet every five years or after a significant impact. Buying second-hand is therefore not recommended.

Lights and reflectors

At certain times of the year, I always carry a set of lights and play it safe. I

have been caught out in the past before when a ride has taken longer than I'd expected. You can take my word for it, riding on the roads in the dark is terrifying and should be avoided at all costs. That's not to say rely solely upon your lights to get you home safely, far better is to plan your ride conservatively to ensure you have plenty of time to get home in good time.

In addition to this, you may also wish to consider reflective equipment. Bike-mounted reflectors are usually included on a new bike but are rarely sufficient. Quality cycling-specific clothing usually has reflective strips which can also make you far more visible in low light conditions.

Shoes & pedals

Using cleats or pedals which attach your shoes to your bike, is undoubtedly more efficient than using normal pedals. Your stroke becomes more fluid, you are able to pull up as well as push down, and they also ensure that your feet are correctly aligned and positioned (provided they have been set up properly!).

Getting used to cleats can take time so ensure you are confident clipping in and out of them before embarking upon a long ride.

Maintenance

Whilst the topic of bicycle maintenance is too broad to be included within the scope of this book, a few simple checks and procedures will keep unwanted mechanical problems to a minimum and make riding a lot more enjoyable.

- **Tyres** – keep them inflated! This sounds simple but it is very often neglected by riders. Get yourself a good pump, preferably one with a pressure gauge, and check that your tyres are kept to the recommended pressure. This improves the efficiency of the bike and reduces wear on your tyres
- **Chain** – ensure it is well lubricated and is free from debris and running smoothly. Chains should be changed around every 1000 miles
- **Cables** – check there isn't any fraying and that they are tensioned properly
- **Brakes** – you need to know that they're going to stop you! Check that they are not too worn, they are aligned properly and are not rubbing on your tyre

Other exercise

It can be beneficial to break up your training programme with other forms of exercise so if you are starting to feel a little drained or bored with cycling then incorporating other forms of exercise to give your morale a boost.

Weights

Although many elite cyclists do nothing more than cycle when training, most top fitness trainers recommend a weight training programme for your legs in addition to a regular cycling regime. It can be especially beneficial if you have any weakness in your knees or are lacking a little bit of power. Always consult a professional and get a bespoke programme written for you, your local gym will provide this service for you.

Running

Running is a fantastic cardiovascular exercise that can reap huge fitness benefits even for the cyclist. Just be careful not to damage those knees!

Swimming

Like cycling, swimming is an extremely low impact sport. It does not put a great deal of pressure and stress upon joints and muscles and can perfectly complement a cycle training regime.

Conclusion

Cycling is a fantastic pastime and I thoroughly recommend anyone of any age and ability to get involved. It has granted me the opportunity to explore parts of the world I never thought I would, to meet some amazing people and to keep fit and healthy at the same time.

The feeling I get from being out on my bike is unrivalled by anything else I have ever experienced, and I find it exhilarating, fun, rewarding and challenging with every pedal stroke.

One final word of warning though...it's addictive!

Running a Marathon – A Beginners Guide

Introduction

So, you're thinking about training for a marathon? Congratulations! You've already conquered the first, and often the most difficult, step of marathon training. You've determined that crossing the finish line might be possible for you. This one decision already puts you among the elite because to most people, running a marathon is not possible, but to you it's a challenge.

Training for a grueling 26.2-mile race definitely isn't for the fainthearted. Those who are able to hobble across the finish line will have put in countless training hours, overcome mountains of mental obstacles, and suffered through weeks of aching muscles, bruised joints, and bursting blisters before they even make it to race day. With all of these negatives, perhaps you're beginning to question your decision. After all, if marathon running is so demanding, why run one at all?

Why Run a Marathon?

Running a marathon will be one of the most difficult tasks you will ever accomplish, but one that is rife with rewards. The most obvious reason to begin marathon training is for the health benefits. All those training hours will literally melt the pounds away and your muscles will become long and lean. Think “runner’s legs”. In addition, you will improve your cardiovascular fitness, helping you live a longer, healthier life. Plus, you’ll finally be able to devour that carton of ice cream without guilt!

Perhaps just as important as the physical benefits of marathon training are the mental powers you will enhance in the process. Eliminating, “I can’t,” from your vocabulary and boosting self-confidence will give you the tools you need to tackle any obstacle that life throws your way. Imagine a world in which you can dare dream big and go after almost impossible goals. Training for a marathon will help you discover your inner strength, and you’ll finally understand the meaning behind the term, “runner’s high”.

Lastly, one of the coolest things about running a marathon is undoubtedly the bragging rights you’ll have earned with your friends and family. Maybe you’ll even inspire others to join you as you train for a second marathon. Regardless of whether you ever run another step again, no one will ever be able to kick you out of the “marathon club”. You will always have a great story to tell, and a pretty swanky finisher’s medallion to show off too!

A Brief History of Marathon Running

Tales of marathon-running's origins are often disputed, but legend claims that the first marathon runner was a Greek soldier named Pheidippides. After the Greek victory over the Persians in 490 BC at the Battle of Marathon, it is said that Pheidippides ran from the battlefield all the way to Athens to share the triumphant news before collapsing on the floor to his death. It is this legend that is believed to have inspired the modern marathon.

In 1896, the marathon race was introduced as an event in the first modern Olympic games, but the distance of this race was estimated to be about 25 miles. In the years that immediately followed, marathon lengths varied, and the distance was not standardized to the current 26.2 miles until 1921 when the queen requested that the distance of the London Marathon be altered so that the racers could finish in front of her majesty's royal box.

Until the 1970s, marathon running was for high caliber, male athletes only, but Frank Shorter's win at the 1972 Olympic games in Munich became the catalyst that marathon running needed to finally meet the masses. Before long, average athletes were testing their limits by running marathons, and when a women's marathon event was added to the 1984 Olympic games in Los Angeles, the sport took off like never before. Today, more than 500 marathons are held in more than 69 countries on all 7 continents each year. With that wide a selection, there is bound to be a marathon that is just right for you.

Training For your First Marathon

“On Your Mark” – Getting Started

Once you’ve made the decision to begin marathon training, it may be tempting to jump in with both feet. Your excitement and anticipation can be used as some powerful motivation, but it is essential that you take the time to prepare yourself for everything that marathon training should entail.

Physical and Mental Preparation

Before beginning any physical fitness program, it is important to first determine whether or not it is safe to do so. Take the time to assess your overall fitness level. If you are not at a level of fitness where you can run for 30 minutes comfortably without stopping, you will need to focus on conditioning your body before you are able to begin training. Starting with a “Couch to 5K” program may be just right for you.

Even those who are in seemingly good shape will need to be careful before beginning a marathon-training program. Running long distances can be extremely demanding on the body. Because of this, it is essential for you to first get your doctor’s approval before starting any training program.

Once you have been permitted to proceed with training, don’t run out and sign up for the first marathon you read about. To be physically prepared for your first marathon, you will need to devote a minimum of 3-4 months to training.

It has been said that marathon running is 50% physical and 50% mental. Because of this, you will need to be mentally prepared to tackle obstacles that may present themselves throughout the training process. By using training runs to practice some of the mental techniques we will discuss further in this book, you will ensure that you are ready to take on any challenge that race day throws your way.

Running Groups

Staying motivated during training can be a challenge. To conquer this, many runners choose to train as part of a group. By building relationships and sharing in a common goal, runners who train as part of a group find that their motivation is increased, and they feel much more accountable. This makes it difficult to slack off when they're feeling sluggish. Running groups can be found in most major cities, and in many small towns. Many are created to train for specific marathon races. These groups generally offer separate pacing groups within the group, so that there are options for runners of every speed and ability level. If philanthropy interests you, there are also a wide number of training groups out there that support charitable causes.

Choosing a Marathon

With over 500 marathons taking place worldwide each year, there ought to be one that is perfect for you. Your first marathon should inspire you throughout training and become everything that you've dreamed on race day. To make crossing the finish line a reality, you will need to make some important considerations when choosing which marathon to run.

Check the Calendar - Flip your calendar 3-4 months ahead at a minimum (or even longer if you are not currently in excellent shape) to determine when you will be ready to race. While it may be tempting to shorten training time for a race that is sooner, avoid making this common newbie mistake. Your body really needs sufficient time to prepare in order to avoid injuries, or you may never make it to race day. You may also want to avoid selecting a marathon that is too far out, as you might find it difficult to stay motivated during training when the rewards are so far removed.

Consider the Location - Whether you choose to race close to home, or if the idea of travelling to a destination marathon sounds good to you, the location of your first marathon should speak to you in some way. Do you envision yourself running along the quiet coastline? Or, are the lights and sounds of the city more your thing? Perhaps cost is a factor. Regardless of your individual tastes and circumstances, be sure to select a race that can enthuse you all the way to the finish line.

Keep the Course in Mind - It's important to contemplate the difficulty, terrain, and weather conditions of each marathon course before making your decision. Most course websites will list typical conditions and elevation profiles for potential runners. Think about which type of course you'd like to run on. Would you feel more comfortable running on a flat and fast course for your first marathon? Or, does the challenge of a hilly course appeal to you? Keep the temperature in mind, as well. Ideal race conditions are typically somewhere between 50-60 ° F (10-20 ° C).

Selecting a Training Program

Building a Base

Probably the most important factor in a successful marathon experience is the quality of the training. Start out too fast or build up mileage too soon during training and you risk burning out, or worse becoming injured. A marathon will put a lot of stress on your bones, joints, and muscles, but the human body is an amazing thing and can adapt to handle this stress if you take care not to push it too hard, too soon. The general rule is that weekly mileage should never increase by more than 10% at a time. There are a wide variety of training programs available, but there are a few elements that should always be present in a beginning program.

A Weekly Long Run - The best way to prepare to run a marathon is to take baby steps with a weekly long run. This long run will slowly help your body adapt to race-like conditions over time. The distance of your weekly long run should increase in small increments on some weeks, but allow for recovery on others. Completing an entire 26.2-mile race might seem unbelievable in the first few weeks, but by slowly increasing mileage over time, you will be there before you know it.

Rest and Recovery Day s- Allowing the body adequate time to rest and recover each week should be an essential part of any training program. On the day following a long run, the body should be allowed to rest completely so that muscles are able to rebuild. At least one additional day each week should be devoted to recovery. It will be important to stay active on this day, but to give the body a break from running.

Maintenance Runs - Maintenance runs will be important in helping you maintain your fitness levels between long runs. Your training program should include at least two of these runs each week. Maintenance runs generally will range from 2-5 miles, depending on how far along you are in your training, and they should be run at slightly faster than your long run pace.

The Run/Walk Technique

For some running “purists”, the glory that comes with a marathon finish can only be reached through running alone. This idea is a relatively new one, however, because history shows us that even the first marathoners were fans of taking walk breaks throughout their runs. Today, a growing number of runners are revisiting this tradition thanks to distance coach and 1972 Olympic runner, Jeff Galloway, who has become an advocate of the run/walk technique. Galloway suggests that by taking short walk breaks, not when you’re tired, but systematically throughout your run, you will give your muscles regular recovery time and will help prevent the injuries that can occur when a group of muscles are overused. Many marathon runners find that their times actually improve by using the run/walk technique. Even if you choose to take a purist approach to your marathon training, don’t be discouraged if you need to slow down and walk from time to time. Remember, the goal is to finish a marathon, regardless of how you get there.

Sample Training Programs

The following training schedules are samples of programs designed for beginners, or first time marathon runners, who are looking to simply finish the race. To begin any of these programs, you should have built your weekly base mileage to 12-15 miles per week. If you are not quite there yet, you will need to build up your mileage before starting the program. You do not need to complete each training run on the day that it is suggested. For instance, if you would rather complete your long run mid-week, then adjust the program accordingly.

Sample Training Program # 1

Week	Mon	Tue	Weds	Thurs	Fri	Sat	Sun
1	rest	3 miles	cross-train	3 miles	rest	4 miles	3 miles
2	rest	3 miles	cross-train	3 miles	rest	5 miles	3 miles
3	rest	3 miles	cross-train	4 miles	rest	6 miles	3 miles
4	rest	3 miles	cross-train	4 miles	rest	4 miles	3 miles
5	rest	4 miles	cross-train	4 miles	rest	6 miles	3 miles
6	rest	4 miles	cross-train	4 miles	rest	8 miles	3 miles
7	rest	4 miles	cross-train	4 miles	rest	10 miles	3 miles
8	rest	4 miles	cross-train	4 miles	rest	8 miles	3 miles
9	rest	4 miles	cross-train	4 miles	rest	12 miles	rest
10	rest	4 miles	cross-train	4 miles	rest	10 miles	3 miles
11	rest	4 miles	cross-train	4 miles	rest	14 miles	3 miles
12	rest	5 miles	cross-train	5 miles	rest	10 miles	3 miles
13	rest	4 miles	cross-train	5 miles	rest	16 miles	3 miles
14	rest	4 miles	cross-train	5 miles	rest	12 miles	3 miles
15	rest	4 miles	cross-train	5 miles	rest	18 miles	rest
16	rest	5 miles	cross-train	6 miles	rest	12 miles	3 miles
17	rest	4 miles	cross-train	6 miles	rest	20 miles	3 miles
18	rest	4 miles	cross-train	4 miles	rest	12 miles	3 miles
19	rest	3 miles	cross-train	3 miles	rest	8 miles	3 miles
20	rest	2 miles	cross-train	rest	rest	Race!	Rest

Jeff Galloway's Run/Walk Training Program "To Finish"

Week	Mon	Tues	Weds	Thurs	Fri	Sat	Sun
1	off	30 min run	off	30 min run	easy walk	off	3 miles
2	off	30 min run	off	30 min run	easy walk	off	4 miles
3	off	30 min run	off	30 min run	easy walk	off	5 miles
4	off	30 min run	off	30 min run	easy walk	off	2.5 miles
5	off	30 min run	off	30 min run	easy walk	off	6 miles
6	off	30 min run	off	30 min run	easy walk	off	3 miles
7	off	30 min run	off	30 min run	easy walk	off	7.5 miles
8	off	30 min run	off	30 min run	easy walk	off	3 miles
9	off	30 min run	off	30 min run	easy walk	off	9 miles
10	off	30 min run	off	30 min run	easy walk	off	4 miles
11	off	30 min run	off	30 min run	easy walk	off	10.5 miles
12	off	30 min run	off	30 min run	easy walk	off	4 miles
13	off	30 min run	off	30 min run	easy walk	off	12 miles
14	off	30 min run	off	30 min run	easy walk	off	4 miles
15	off	30 min run	off	30 min run	easy walk	off	14 miles
16	off	30 min run	off	30 min run	easy walk	off	5 miles
17	off	30 min run	off	30 min run	easy walk	off	17 miles
18	off	30 min run	off	30 min run	easy walk	off	5 miles
19	off	30 min run	off	30 min run	easy walk	off	6 miles
20	off	30 min run	off	30 min run	easy walk	off	20 miles
21	off	30 min run	off	30 min run	easy walk	off	6 miles
22	off	30 min run	off	30 min run	easy walk	off	6 miles
23	off	30 min run	off	30 min run	easy walk	off	23 miles
24	off	30 min run	off	30 min run	easy walk	off	6 miles
25	off	30 min run	off	30 min run	easy walk	off	7 miles
26	off	30 min run	off	30 min run	easy walk	off	26 miles
27	off	30 min run	off	30 min run	easy walk	off	7 miles
28	off	30 min run	off	30 min run	easy walk	off	6 miles
29	off	30 min run	off	30 min run	easy walk	off	7 miles
30	off	30 min run	off	30 min run	easy walk	off	Race!

“Get Set” – Preparing to Run

After you’ve selected a marathon and have decided on a training program, you’ll probably be ready to get out there and go for your first run. Not so fast. Before you take off, you’ll want to ensure that you understand how to take care of your body and gear throughout this grueling journey so that you do not add to your risk of injury or discomfort.

Running Gear

Equipment Checklist

Here are some items you'll need to get started:

Running shoes- purchased from a running specialty store

Dry fit clothing- to absorb moisture and prevent chaffing

Synthetic socks- to keep feet dry and prevent blisters

A high quality sports bra (for women!)

A hydration pack- to carry water and other necessities on long runs

A sports watch- to help with pacing

A foam roller- to roll out tight muscles after long runs

Refueling gels or bars- to refuel and provide energy on long runs

Aspirin or Ibuprofen- to reduce discomfort from minor aches and pains

(Optional) iPod or mp3 player- If you choose to listen to music while you run, be sure to have the volume low enough so that you can easily hear oncoming traffic or other pedestrians.

Selecting the Right Shoes

No piece of equipment is more important to a runner than his/her shoes. The most common newbie mistake made is to purchase a pair of inexpensive shoes from a discount store. A runner is only as good as his/her shoes. Select the wrong pair and you're headed for disaster in the form of injury. Because every runner's body and technique are slightly different, it is important to visit a running specialty store where an expert can help you to determine which shoes are best for you based on several determining factors, such as pronation, foot type, and gait.

When to Replace Shoes

Running in worn-out shoes can lead to injuries, so it's important to know when to replace them. While there are no set rules that can be applied to every runner, there are a few rules of thumb to help you determine when to start shopping for a new pair. Most runners need to shop for shoes every six months, or so, but runners who are logging high mileage each week may need to replace shoes more often. Typically, shoes will remain reliable for approximately 300-500 miles. By keeping a running log, you can keep track of your mileage and also notice if you are beginning to feel any discomfort. If so, it may be time for a new pair.

Proper Running Form

The key to maintaining proper form while you run is to remain relaxed. Your head, neck, and shoulders should be loose, and your gaze should remain naturally forward. Arms should be bent at 90 ° angles, and ought to swing forward and back, not across the body. Keep fingers slightly bent, but not clenched. By keeping your upper body naturally loose and straight, your waist and torso will stay in proper alignment. Distance runners only need to lift their knees slightly with each step, maintaining a short stride. Bend your knees as each foot strikes the ground to absorb impact and avoid pounding. Each foot should land directly beneath the body and push off the ground in a steady, fluid motion.

Breathing Techniques

Just as you train your muscles and heart to accept the challenge of marathon training, you will also need to train your lungs. Poor breathing can cause fatigue and even lead to “side stitches” or cramps. To make oxygen intake more effective, open your mouth slightly and keep your face relaxed as you breathe. Your breaths should come from your entire diaphragm, not just your chest. It helps to regulate breaths into a pattern by coordinating inhales and exhales with the falls of your feet. For instance, inhale slowly as you step with your right foot, then left foot. Exhale slowly as you step with your right foot, then left foot again.

Understanding Heart Rate

An important part of marathon training is learning to train at an intensity that will condition the body to handle exceeding pressure, but not force it to overwork and shut down. Understanding the role of your heart rate is important to ensuring that you are training at an appropriate level. Your Heart Rate Reserve (HRR) is the difference between your resting heart rate and your maximum heart rate. Typically, first time marathoners should train at 60-80% of their HRR. Long runs, or recovery runs, should be trained closer to 60% of your HRR, and higher intensity runs should be trained closer to 80% of your HRR.

Nutrition and Hydration

Food

Most active men and women require somewhere between 2000 and 2500 calories each day. Marathon runners require more. You will need to add approximately 100 calories per mile trained to your diet. But, not all calories are created equally, so it will be essential for you to research and develop a nutrition plan before you begin training. Here are some tips to get you started:

- Forget everything you've been told about carbohydrates. During marathon training they're essential, so eat up. Sixty-five percent of your diet should come from carbohydrates, particularly complex ones. Carbohydrates will provide the body with needed energy by restoring glycogen and will supply the body with protein to repair muscle tissue. Some examples of good carbohydrates are: potatoes, beans, pasta, bananas, apples, brown rice, corn, and root vegetables,
- To repair muscle tissue that is damaged by all of your hard work, you will need to add extra protein to your diet, as well. Lean meat, beans, low fat milk, eggs, and peanut butter are all good options.

Water

Water is essential to the human body. It helps lubricate joints, regulates body temperature, transports nutrients, and removes waste products. As your mileage increases throughout your training, so will your need to adequately monitor your intake of fluids. To do so, it is important for you to understand your body's hydration needs.

How Much Should a Runner Drink?

Because every individual is different, it's impossible for doctors to provide specific numerical guidelines regarding hydration requirements to runners. The amount of fluids necessary to maintain normal body function will depend on several factors, including: temperature, humidity, individual sweat rate, running intensity, duration, and other differences among individual runners.

While in the past sports medicine professionals have attempted to provide a

“one size fits all” approach to fluid replacement, the **International Marathon Medical Director’s Association (IMMDA)** has recently revised their recommendations to suggest that the best method of determining how much fluid to drink during exercise is to focus on thirst. In other words, when you’re thirsty, *drink*. By the same token, if you’re not thirsty, try to refrain from drinking. Let your thirst be your guide.

The idea of assessing one’s own hydration needs can be intimidating, but there are several methods that can be used as general guidelines to help in determining your individual hydration needs.

General Hydration Guidelines:

1. Drink about 15-20 fl oz 2 to 3 hours before your run, and drink about 8 fl oz 20-30 minutes before your run
2. Drink about 6-8 fl oz every 20 minutes, or so, during your run
3. Drink about 8 fl oz within 30 minutes of completing your run

To monitor your individual hydration needs, it can be helpful to:

Weigh yourself before and after each run - Any weight loss is most likely due to fluids lost through sweat. It is normal to lose weight during exercise, especially after long runs, but a weight loss greater than 2% is a potential sign of dehydration. Any weight gain should also be a clue that you are not drinking properly.

Pay attention to your urine- If your urine is light in color, and you are able to urinate frequently, you are probably adequately hydrated. If you urinate infrequently, or your urine is dark in color, you may be dehydrated.

Symptoms of Dehydration

If not treated, dehydration can become a potentially fatal condition, so it will be important for you to learn how to watch for its signs.

Mild to moderate symptoms of dehydration may include:

- Dry, or “cotton” mouth
- Excessive thirst
- Lack of sweat and/or infrequent urination
- Sleepiness
- Headache
- Dizziness or a feeling of being lightheaded
- Muscle cramps

If the body loses too much fluid during exercise there may be a significant drop in blood volume, which forces the heart to work harder to circulate blood throughout the body. If not treated, severe dehydration can be extremely dangerous, or even fatal.

Severe symptoms of dehydration may include:

- Extreme thirst
- Rapid heartbeat
- Rapid breathing
- Shortness of breath
- Nausea and/or vomiting
- Fever
- Delirium
- Unconsciousness

Is it possible to drink too many fluids?

Although the risk of drinking too much fluid is small, it is important for runners to understand the dangers of *hyponatremia*, or water intoxication, while training for distance races. When excessive fluid is consumed, the

blood may be deprived of sodium, causing the cells to swell with water. This swelling can lead to serious medical emergencies. To prevent hyponatremia, it is important to monitor fluid intake and signs of hydration by refraining from drinking liquids when you do not feel thirsty.

Sports Drinks vs. Water

Your choice for hydration will vary according to what your needs will be during each workout. On shorter maintenance runs, your primary hydration goal will be to keep the body cool and maintain a balance of fluids. For this, plain water will do the trick. For high intensity workouts, or runs lasting 60 minutes or more, a sports drink may be the better option. The added calories in sports drinks will help replenish energy and increase performance. For extreme distance runs, like those over 3 hours in length, it will be necessary to choose a complex sports drink that includes electrolytes.

Hydration System Options

As you begin to train for your first marathon or half marathon, you will need to consider how you will stay hydrated during longer runs. Any run lasting longer than 30 minutes will require you to have easy access to fluids. While you will most likely be met with a series of hydration and refueling stops on race day, you will not have this access on training runs and will need to purchase a hydration system to carry with you on longer runs. There is a wide array of hydration system options available, and your choice will depend on personal taste. Don't be afraid to experiment until you find the best fit.

Handheld Water Bottles - This hydration system option consists of a single water bottle and strap. The runner carries the bottle by slipping his/her hand beneath the strap. Some handheld water bottles systems offer adjustable, padded straps and small pockets for storage.

Waist Belts - Waist belts are great option for freeing your hands. The belt will strap around your waist and allow for the storage of multiple bottles, giving you the option of bringing different types of fluids on a single run. Waist belts should be worn above the hipbones to prevent bouncing.

Big Bottle Waist Packs - Big bottle waist packs are a variation of the traditional waist belt. These packs usually come with one large bottle and

several pockets to store keys, energy gel, or aspirin.

Over the Shoulder Packs - For runs lasting 2 hours or more, an over the shoulder hydration pack may be your best option. These packs are worn like a backpack, carry more than a liter of water, and usually come with extra storage space. A flexible hose offers easy access to fluids.

“Go!” – Your Marathon Training Runs

It's finally time to tie up those laces and take off on your first run! The date marked “Race Day” on your training schedule probably seems really far off, but you'll watch it creep closer with each and every workout. By the time the big day arrives, you'll wonder where all the weeks went.

Choosing When and Where to Run

Face it. You're going to be logging a lot of mileage over the next few months. It'll be easy to lose focus along the way. A great way to ensure that you keep your eyes on the prize is to carefully select when and where you run. By choosing a time and place that is not only safe, but appeals to you in some way, you will find it easier to maintain motivation throughout the entire training process. Here are some tips to help you select a time and place that will be best for you:

Decide when you feel the most energized . Are you a morning person? Or, would you prefer to run at the end of the day? Whichever time of day you pick, try to remain consistent. You will better be able to predict your body's responses. If you choose to run after dark, be sure to stay in well-lit areas and wear reflective gear to keep you safe.

Choose your pre-run foods carefully . Every runner's body is different, but no one likes to run with what feels like a lump of iron in their stomach. Experiment to see what your body will tolerate and which foods energize you the most. Some runners like to take off on a run after only a cup of coffee. Others need to add a little carbohydrates or protein for energy. Try to stay clear of greasy or fried foods.

Think about what you need to mentally survive a run . A positive mental state is essential to surviving marathon training, especially on long runs. Select a running route that will help you remain strong. Maybe you need to break the run up mentally into smaller segments. Perhaps you'll need to distract yourself by running in a crowded location. Possibly, you like to zone out on a run and need to run in a peaceful place. If you do decide to run in a quiet locale, keep safety in mind. Always let someone know where you'll be and when to expect you to return. Stay on paths and/or trails and avoid running close to bushes or alleys.

Consider the weather . Take precautions if you decide to run in inclement weather. Be sure to stay visible and dress accordingly. Do your best to avoid running in temperatures in excess of 80 ° F. If you must run in the heat, remember to carry water with you and watch for signs of dehydration.

Dealing with Running Injuries

As we've discussed, training for a marathon can put a lot of stress on a runner's bones, joints, and muscles. Learning to listen to your body and take care of its needs will be important in avoiding any injuries that can impede upon your progress, but even the most careful and accomplished runners have to deal with injuries from time to time. Understanding common runner's injuries and how to prevent them will be important, but knowing how to treat them when they occur will be essential for you to be healthy and ready to go on race day.

Injury Prevention

Benjamin Franklin famously quipped, "An ounce of prevention is worth a pound of cure." This old adage is unquestionably true when it comes to running. Thankfully, most running injuries are caused by poor training habits and can be prevented. Over-training, weak muscles, poor flexibility, and inadequate footwear are all common culprits. To help prevent running injuries it is imperative for you to select a well-rounded training program that allows the body time to adapt to its increased rigor. Remember to never increase your mileage by more than 10% each week. As you train, it is a good idea to incorporate strength and flexibility exercises to your schedule. Strong and flexible joints and muscles are better able to handle the pressure that marathon training will place on them. Also, don't underestimate the value of selecting footwear that is appropriate for your individual needs. Most importantly, be sure to listen to your body. If something does not feel right, stop doing it. If you take care of your body, your body will take care of you.

Injury Treatment

Even when you've done everything right, sometimes injuries are simply unavoidable. Knowing how to treat injuries when they arise will be essential to a quick recovery.

R.I.C.E. -This mnemonic device can be used for first-aid treatment to relieve the discomfort caused by many running injuries. R.I.C.E. stands for **R**est, **I**ce, **C**ompression, and **E**levation.

Rest - When your body is strained beyond its normal capabilities, rest

becomes essential. Without rest, increased inflammation, pain, and further injury will be probable. Your training schedule should allow for rest days, but when injuries occur, it may be necessary to increase the number of days taken. The greater the damage to the body, the longer an injury will take to heal.

Ice - After long runs, ice will be your best friend. If used properly, ice is great at reducing inflammation and pain. When muscles are sore or an injury occurs, apply ice for 20 minutes at a time to the affected area. To prevent dangerous conditions, such as frostbite or decreased blood flow, do not exceed the recommended 20 minutes and never apply ice directly to your skin.

Compression - When swelling occurs, it may be necessary to compress the affected area by applying a bandage. Compression aims to reduce the swelling caused by inflammation. The bandage should be applied tight enough to reduce movement, but loose enough to allow muscles to contract.

Elevation - Elevating the affected area can also assist to bring down the swelling caused by an injury. By raising the area above the heart, waste products can more easily be removed from the area.

Severe or Persistent Injuries

When injuries are severe or persistent, a more aggressive form of treatment may be necessary. As difficult as it may be to postpone your marathon training, it may occasionally be necessary. Some injuries will require extended periods of rest, or intense therapy. By ignoring warning signs, you run the risk of increased injury and/or a longer recovery time. Your health should always come first.

Common Runner's Injuries

Plantar Fasciitis - Plantar Fasciitis is the inflammation of the thick band of tissue that runs across the bottom of the foot and connects your heel to your toes. When inflamed, you will feel a stabbing pain in the heel. Often caused by running on hard surfaces, plantar fasciitis is usually treated with rest, a change in running locations, orthotic soles or footwear.

Achilles Tendonitis - Achilles Tendonitis is the inflammation of the large tendon on the back of the ankle and causes pain and swelling. Often caused by a lack of flexibility or overpronation, Achilles Tendonitis is usually treated with rest, increased flexibility training, and a change in footwear.

IT Band Syndrome - IT Band Syndrome is an overuse injury to the Iliotibial Band, or the length of tissues that run along the outside of the thigh. Pain is felt on the outside of the knee as the heel strikes the ground. Prevention is key. Muscles should be well stretched and hips should be strong. IT Band Syndrome is usually treated with RICE, additional strength and flexibility training, and in some cases physical therapy.

Runner's Knee - Runner's Knee usually occurs through overuse, but may be aggravated by overpronation or weak thigh muscles. Pain is found around and below the kneecap. Treatment generally consists of RICE, increased strength training, and/or a change in footwear.

Shin Splints - Most runners suffer from Shin Splints from time to time. This aching sensation felt in the shin is usually caused by irritated or swollen muscles gained from overuse, but can be aggravated by overpronation. Treatment most often consists of RICE, although in severe cases, a change in footwear or physical therapy may be needed.

Pacing

Discovering your ideal pace will be essential to all of your training runs, and by extension, marathon day itself. After all, practice makes perfect. By practicing appropriate pacing in the months leading up to the big day, your body will know how to respond during the race. Every runner has an ideal pace. When you've found yours, you should feel like you've finished a run with only slightly more left in the tank. In other words, you should feel as if you couldn't run much farther at the same pace, but should not feel ill or like collapsing on the ground. So, how can you figure out your ideal pace? Olympic marathoner and running coach, Jeff Galloway, has worked with thousands of runners to decipher a method for determining a runner's ideal pace through what he calls the "Magic Mile".

The Magic Mile

Each runner has a unique "Magic Mile", or mile pace, that when used in conjunction with Galloway's formula, can be used to help set appropriate pacing goals and determine how much improvement can be expected over time. Through regular mile testing, the guesswork is taken out of pacing. To discover your unique Magic Mile, you will need to warm up and go to a track, or other one-mile course. Run fairly hard, but not hard enough to become sick. Complete the test several times over a period of a few weeks. Subtract your slowest time and average the remaining times together. Multiply the result by 1.3 to discover your ideal marathon pace.

Training Pace Guidelines

It's not realistic, or advisable, for you to run all training runs at marathon race pace. During training, the majority of your workouts should be run at slightly slower than your marathon pace. For beginners, no more than one shorter run each week can be designated for tempo or interval training, and should be run, at least in part, at marathon pace. Pacing for long runs should be much slower. Subtract 10-20% from your marathon pace to discover your ideal long run training pace. Pacing during a long run should be eased into. In other words, begin slowly and build speed over the second half of the workout.

Hill Training

There's a reason why many runners avoid hills. They're not easy, but adding hill work to your marathon training is highly advised, and if your selected marathon course has any slope to it, hill training is essential. Even a slight incline can feel like Mount Everest at Mile 20. Be prepared. In order to be successful on a hilly course, you need to train on hills. By selecting training routes that include hills of varying grades and at varying times throughout a run, you will practice how to physically and mentally tackle even the steepest of hills, and you will be ready to tackle any slope your marathon course throws at you.

Tips for Tackling Hills

Running Uphill

- Shorten your stride a little so that your pace slows, but your effort remains the same.
- Avoid hunching over, and keep your chin up and eyes looking forward.
- Keep your arms moving, using correct form.
- Use a light step. Avoid pushing off the ground with excess force.
- Find a rhythm.

Running Downhill

- Lean forward slightly from the hips, but keep your chest open.
- Avoid stomping. Maintain a light step.
- Slowly begin to lengthen your stride, but avoid lengthening so far that you feel out of control.
- Let gravity handle the work.

The Long Run

As we've covered, your training program will consist of one "long run" each week. This run will initially be only slightly further than your usual runs and will increase in mileage each week over the first half of your training. As your mileage gets up there, your long run distance will only increase every couple weeks to allow for recovery time. The long run is the most practical and essential element of marathon training as it most closely resembles race day conditions.

A Mental Workout

Your long run each week will be as much about mental training as it will be about physical training. Not only will the increasing distances of your long runs add to your self-confidence and training momentum, but you will have the opportunity to practice handling the periods of fatigue and discomfort that you will most definitely encounter on race day. Learning to maintain a positive attitude and push through difficult moments will be mandatory for a successful marathon experience.

Practice Negative Splits

The best way to finish a run strong is to learn to correctly pace oneself throughout the run. Starting out too strong is a sure way to burn out before finishing. One method to ensure that you have enough gas in the tank to finish a run is to practice negative split pacing. A negative split is essentially running the second half of a run faster than the first half. Ideally, your pace should gradually increase from start to finish. Most runners find that a 2% speed increase from the beginning of the run to the end is successful.

Recovery

When you walk in the door after a long run it's easy to let your sense of accomplishment let you feel like you're "done for the day". Think again. To adequately recover from a long run so that you are ready and energized for your next run will require some additional work. Your first step after completing a long run should be to refuel and rehydrate. Drink plenty of water and look to chow down on some quick sources of carbohydrates and protein. Next, you will need to take some time to stretch out those overworked muscles. Many runners ice "trouble spots" or take Ibuprofen for inflammation and mild discomfort. Finally, be sure to fix yourself a high protein dinner and get to bed early. Let your body recover while you sleep.

Beyond Running

Running will of course make up a large part of your marathon training, but in order to avoid injuries and get the most out of training, add some additional workouts to your regular routine.

The Importance of Stretching

Stretching is great for muscles and joints. Through regular flexibility training, muscles are elongated and range of motion is increased, decreasing the risk of injury and discomfort while marathon training. It is important to stretch before and after each workout, in addition to adding one or two full flexibility workouts to your schedule each week. To stretch properly, hold each stretch for a total of 30 seconds. Do not bounce. Yoga and Pilates both provide excellent flexibility training opportunities for runners.

Cross Training

Elite marathon runners know that there is more to training than running alone. Sometimes it is necessary to mix things up a bit and add a bit of cross training into the routine. Cross training consists of any activity that requires cardiovascular endurance, aside from running. By incorporating different activities into training you will allow muscle groups time to recover, minimize your risk of injury, and avoid boredom. Swimming and cycling are excellent cross training options for runners. Recovery days are excellent opportunities to include cross training into your marathon-training schedule.

Weight Training

While weight training is not mandatory for a successful marathon run, it can be extremely helpful. Strong muscles are better able to handle the rigors of training and can aid you in avoiding some types of injuries. If you choose to lift weights during training, opt for lighter weights with high repetitions, and do not lift weights on consecutive days. It is best to perform weight-training exercises on light or non-running days.

Tapering

Tapering is an important and necessary part of any marathon-training program. As you approach race day, you will notice that your weekly mileage will begin to taper, or decrease, over the last few weeks. While it may seem counterintuitive to cut back on training when you are so close to your marathon goal, this tapering period is essential to allow you to be as rested as possible so that you can meet your maximum potential when the big day arrives. You may find easing up a bit at this point in the game is harder than you imagined. It can be helpful to find alternative activities to ease your mind a bit. Go for walks, start on a project, or read a book or two. Take comfort in knowing that you have already completed the most difficult part of training. The only obstacle left is race day itself.

Race Day and Beyond

Before the Starting Line

The big day has finally arrived, and you're ready to watch all those months of hard work pay off. After all, you've been preparing for months, right? Not so fast. Don't throw all of that prep work out the window by showing up at the starting line without understanding what race day itself has in store for you. To ensure that your marathon dreams do not turn into a marathon nightmare, you will need to prepare just a little bit more.

Visualizing Your Race

Over the course of your training, you've probably visualized yourself crossing the finish line of your first marathon a number of times. Perhaps this simple mental exercise has encouraged you to keep pushing on those occasions when your body is telling you otherwise. The mind is powerful. As race day approaches, use this technique to visualize the experience you wish to have from the moment you wake up in the morning on race day until after you cross the finish line. What will your attitude be like? What will you think about? How will your body feel at various points in the race? What will your form look like at Mile 22? What will you do when as you cross the line? By simply visualizing the scenario you wish to experience, the mind can often will it to come true.

Pre-race Nutrition/Hydration

By now, you probably know how your body responds to different foods before a run. If it's not broke, don't fix it. Avoid trying anything new in the days before race day. Drink plenty of fluids and take in extra carbohydrates for the 24 hours prior to the marathon. As evening approaches, avoid the temptation to overeat. Most marathons offer a pre-race dinner for participants. This is a great opportunity to revel in a sense of unity and accomplishment with your fellow runners and to take in some last minute nutrition. On the morning of the race, follow the same system you've been using for months. If you've nibbled on a slice of toast before long runs, don't stop now. If you usually drink coffee before heading out the door, then pour yourself a cup.

Packet Pick-up

Most marathons will offer plenty of festivities prior to the race. Race Expos presenting race day souvenirs, information, and merchandise for runners are usually held a day, or two, prior to the marathon. Most likely, you will need to attend the expo to pick up your race day packet. Your packet will consist of everything you will need to know and have for the race, including: parking/transportation information, your numbered bib, and a timing chip. Be sure to read all of the information carefully and have everything set up before an early bedtime.

When the Gun Goes Off

There are few things as electric as the atmosphere at the starting line of a marathon. Soak it in. It's quite an accomplishment to have made it this far.

Starting Slow

Most first time marathoners will need to line up toward the back of the pack of runners, allowing the competitive racers to begin up front. Depending on the size of the marathon, when the gun goes off, you may not have any choice but to start slow in the midst of a crowd of runners. As the field opens up a bit, resist the temptation to take off fast and strong. One of the biggest first-time marathoner mistakes is to start out too fast. No matter how difficult it is, you must do your best to run the first few miles slower than you'd like to. Don't worry as all those other first-time marathoners soar past you. Chances are, you'll catch up to them around Mile 18 when their bodies are giving out, and yours still has more to give. Starting slow will be essential to your body in the later stages of the race.

Staying Strong

Physical Strength

By starting out slow, it will be much easier to stay physically strong throughout the race. Remember, your goal should be to run progressively faster, not slower. Use mile markers and a watch to help you stay on your target pace. Don't forget that your aim is to finish your first marathon and feel good doing it. You are not out to win the first place. Remember to monitor your hydration and fuel needs to avoid running out of energy, or worse, before the last leg of the race. Slow down at hydration stations and drink 6-8 oz of water every 20 minutes, or so. Avoid eating anything during the race that you have not already tried during training. Energy gel is a great way to replace essential energy in the form of glycogen during the race.

Mental Strength

Staying mentally strong is another story, but one that you will have already practiced in your long runs. Most marathoners find that their excitement and anticipation are enough to get them through the first half of the race. It's around Mile 13 when the real work sets in. Here are some tips to get you through miles 13-20:

Break the Race Up into Segments - Think about the remaining miles as a combination of smaller runs. For instance, think, "I only have a 10K, plus a 5K to go!" Notice mile markers and check them off as you go.

Visualize the Rest of the Race - Remember to imagine yourself finishing strong. Think about all of the preparation you've put in. You've done the work. You're almost ready to reap the rewards.

Keep Your Mind Occupied - While the first half of the race is exciting, the second half can become, well... boring. Do whatever you need to do to keep your mind occupied. Look around. Talk to other runners. Sing songs to yourself. Count footsteps. Whatever it takes to keep your mind occupied.

The Wall

Most marathon runners know about the terrifying “wall” that is said to appear around Mile 20. Not a wall in the literal sense, a marathon runner’s “wall” is the point at which his/her body runs out of its stored glycogen, forcing them to slow to almost a crawl. Their mind becomes clouded and they lose control of their body and emotions. Contrary to popular belief, it is possible to avoid hitting this wall by remembering everything you have learned about marathon running. Be confident that you have trained properly, hydrated and refueled effectively, and started out the race slowly. In doing so, you will never have to meet the wall at all. That is not to say that the final 6 miles will not be difficult. They will be. Here are some tips to get you through the final stretch:

Break the Race Up Into Even Smaller Increments - Take each mile as it comes. Think, “23 down, 3 to go!”

Take Control of Your Mind - At this point in the race, the mind is key. Try to ignore your aching body and remember what you set out to do. Do your best to focus on the cheering crowds and the other runners around you. Avoid focusing on yourself too much during this time.

Have a Mantra - When all else fails, repeat a mantra to yourself. Reminding yourself, “I can do it,” or “I’m almost there,” can do wonders. Before you know, the finish line will be in sight.

Crossing the Finish Line

Welcome to the club! After months of training, countless hours of preparation, and dozens of aches and pains, you've finally reached your goal of finishing your first marathon and can count yourself as a member of the marathon club. Congratulations! Take time to enjoy your amazing accomplishment.

Enjoying the Moment

For many, the moment after they cross the finish line of their first marathon is an emotional experience. Finishing the longest run of your life amidst cheering crowds is a lot to take in. Enjoy it. Only 0.5% of the population has achieved what you have. Race organizers have probably set up quite a party for you at the finish line. Remember to take time to look around and enjoy where you are and how far you've come.

Rehydrating and Refueling

Once you've taken some time to appreciate your success, you will need to turn your focus to recovery. Just as you needed to take care of yourself after your long training runs, you will need to take care of your body in order to recover properly. Continue drinking fluids to rehydrate and take in some fuel immediately. Most marathons offer a gourmet selection of post-race foods, music, and camaraderie. When you feel ready, feast upon whatever you like. You've earned it!

Recovery

Your best bet in the hours following your race is to stay active. Go for a light walk or a dip in the pool. Keeping your muscles engaged will help them flush out any remaining toxins. Use ice and Ibuprofen as needed for discomfort. It can be helpful to get a light massage. Remember to continue to eat a healthy and balanced diet. Take a few days off from any serious physical activity and focus on mending your body. Wait at least a week or so before resuming a usual fitness routine.

Setting a New Goal

It's normal to experience a period of "let down" once marathon day is over. For so long, the marathon was probably all you thought about and the idea of finishing was enough motivation to keep you going. Your hard work has paid off, and you have a healthy looking body to show for it. Don't let it all go now. It's time to find a new source of motivation to get out there and take part in the sport you've grown to love.

Finding Motivation

Your marathon experience has taught you that anything is possible. Why not take that feeling of accomplishment and go after a new goal? Always wondered what a triathlete feels like? Go ahead and become one. The key to staying strong physically and mentally after your marathon is to find a new source of motivation. Perhaps you'll want to give another marathon a try. This time, you may have a time goal in mind. Get inspired. Don't wait until your race day euphoria fades away. Pick a new goal and go after it!

Your Next Marathon

Looking for your next marathon? Here are some of the most popular marathons around the planet.

Big Sur International Marathon

Big Sur, California

The Big Sur Marathon's motto is "Running on the Edge of the Western World" and runners truly are. This course winds along the picturesque Central California coast and offers some of the most breathtaking views in the entire world.

Virgin London Marathon

London, United Kingdom

This relatively fast course winds itself around the River Thames. Since its inception in 1981, the London Marathon has given many runners some of their fastest marathon times and is considered to be one of the top 5 marathons in the world.

Athens Classic Marathon

Athens, Greece

Participants in the Athens Classic Marathon run along the fabled course of the "first marathoner", Pheidippides, as he ran from the Battle of Marathon to announce the Greek's victory over the Persians in ancient times. The race finishes at Panathinaiko Stadium, a site for ancient athletic competitions.

Boston Marathon

Boston, Massachusetts

The oldest and most prestigious of marathons, the Boston Marathon is so popular that runners need to qualify before they are able to run it. Once they are there, runners wind through a city rich with history and take on the infamous "Heartbreak Hill".

ING New York City Marathon

New York, New York

The New York City Marathon is one of largest marathons in the world, with over 45,103 runners in 2010. Participants must register months in advance for the opportunity to run through some of the most iconic parts of the city.

Whichever Marathon you end up choosing you can be sure of an amazing experience that will stay with you for life.

I hope you have enjoyed this book and found it useful, I wish you lots of success whether you struggle your way through one Marathon or become a leading 'ultra' distance runner (it could happen!).

If you have enjoyed this book please take the time to post a review on Amazon and to use Facebook and Twitter to share with like-minded individuals, remember running with people is great fun so get your friends signed up!

Appendix

Glossary of Running Terms

Carbohydrate - an essential nutrient found in pastas, breads, fruits, and vegetables; stored in the muscles and liver as glycogen

Cross Training - physical activities, other than running, that can be used to increase conditioning and prevent injury

Dehydration - a lack of enough fluids in the body

DNF - an acronym meaning “did not finish”; applied to runners who drop out of a race

Electrolytes - Minerals such as sodium, chloride and potassium that are used for normal bodily functions; these minerals are lost when the body sweats and are replaced through food and fluids.

Fartlek - a workout that includes periods of fast running and periods of slower running

Glycogen - the form in which carbohydrates are stored in the body; when glycogen stores are depleted, a runner fatigues.

Heart Rate - the contractions of the heart measured in beats per minute (BPM)

Hydration - adding water to the body

Hydration Belt - a system for carrying water, or other fluids, while running

Insole - the removable inner part of a shoe that may provide cushioning and arch support

Interval Training - the use of workouts that consist of a repeated distance run with recovery jogs in between; for example, 4 x 400 meters with a 400-meter recovery jog in between each 400.

Midsole - the part of a running shoe between the upper and outsole

Negative Split - running the second half of a race faster than the first half

Outsole - the bottom-most layer of a running shoe

Overpronation - an excessive inward roll of the foot

Pace - the measured speed of a runner

PR - an acronym standing for “personal record”, or the fastest time recorded for a particular runner

Pronation - the natural, inward, roll of the foot

Recovery Run - a slow to moderate run used to recover from long or intense runs

RICE - a first-aid treatment meaning: rest, ice, compression, and elevation

Speed Work - short, fast intervals with recovery jogs in between

Stride - the length, or rhythm, of a runner’s steps

Taper - a reduction of mileage in the days or weeks prior to a race

Tempo Run - Type of workout to improve the lactate threshold; usually consists of 15-30 minutes of running at the lactate threshold speed

Timing Chip - a small, lightweight chip worn by runners to calculate time as they cross an electronic mat

Underpronation - the lack of sufficient inward motion of the foot

The Wall - A state of exhaustion when your body runs out of glycogen or energy; usually around the 20-mile point in a marathon

Additional Resources

For additional resources on marathon running:

Websites :

International Association of Athletics Federations (IAAF)

www.iaf.org

Association of International Marathons and Distance Races

www.aimsworldrunning.com

Runner's World Online

www.runnersworld.com

Runner's World UK

www.runnersworld.co.uk

MarathonGuide.com

www.marathonguide.com

Running a Half Marathon – A

Beginners Guide

Getting Started

It has often been said that getting started with running is as simple as pulling on a t-shirt and trainers and heading out of the door. While that's oversimplifying things slightly, this guide will tell you everything that even a relative beginner needs to get through a training programme and complete the 13.1 miles of a half marathon.

But first things first. Even getting to this point is assuming a few things. You should already be a runner, capable of running at least two miles several times a week without too many problems. You should be reasonably fit, and

certainly carrying no existing injuries that have either been caused by or exacerbated by running and that have not healed. You should also have the time and strength of mind to commit to a ten-week training programme with three to four training sessions a week, as otherwise your half marathon dream should remain just that, for now.

Assuming the above applies to you, let us begin. A half marathon is often the first 'serious' race that beginner to intermediate runners aim for, as 13.1 miles makes it a significant challenge above the standard 10K races and a stepping stone or taster to the far more daunting 26.2 miles of a marathon. It's a race that anyone with determination and enough training under their belt can expect to complete reasonably comfortably.

So, what first? Having the right clothing and kit is something you may not have bothered with too much before now, but as the time you spend outdoors running increases, you may find that technical items are more comfortable both to run in and in terms of keeps chafing to a minimum.

Good trainers, if you haven't already got them, are crucial. Yes, they're expensive – but the right trainers for your feet and running style will make a huge difference in both comfort during training and races and your potential for injury. Get yourself measured up at a proper running shop, where they assess your gait on a running machine and will be able to advise you on the best options for your type of running.

In terms of other clothing, fitted clothing that is made with a material that will wick sweat away from your body is most efficient and comfortable. Most major brands make these, so shop around for a style and price that suits. If you are going to be training over the winter months, consider a lightweight hat and gloves that you can wear to warm up, but then stash in a pocket when you're warm enough, and a lightweight, windproof jacket that you can tie around your waist.

How technical you want to be when measuring your training progress is up to you. A simple watch or stopwatch will suffice, if you just need to time how long you're out. I found a GPS watch very useful though, both for storing training runs and for seeing peaks and troughs of each run on the computer when I got home. On most models you can set a maximum or minimum pace, with beeps telling you when you are outside this zone. You can also get

gadgets that pretty much do everything for you, bar the actual run, but which come at a cost. Try and work out which things are necessary for you and then research accordingly. I'm still using a reasonably battered Garmin 205, although there have been several improved and smaller versions. But it does everything I want, most noticeably telling me what my pace is at any given time and how far I have run, so I won't be trading up any time soon. If you do plan to make any big purchases, be sure to shop around – some runner outlets offer discounts to members of various forums, so don't just plump for the first one you see.

You can also transform most Smartphones into tracking devices that use internet data to monitor your runs. These are mainly in the form of inexpensive applications or 'apps' that are downloaded from the internet. With many of these apps you can log runs, track your personal bests, get elevation data, and even compete with friends and family. Just type 'running app' into any search engine for the latest ones out there!

Mind over Matter

Running is almost as much about what goes on in your head than it is about what your legs are doing. Positive or negative feelings around a training run or race can have a major impact on performance, and developing mental stamina alongside physical fitness is essential for success.

When I was training for the Great North Run in 2009, I was given access to a sports physiotherapist as part of my package.

The physiotherapist made it clear to me that training the mind for the rigours of a 13.1 mile race and, crucially, what to do when the going got tough, was just as important as the physical side of training.

You may have recognised that it can be hard to motivate yourself to get out the door, or continue with a run if the rain starts or you encounter an unexpected hill. Well, this is where pre-race mental preparation comes in.

His top tip was to aim for goals that are achievable, so that you don't feel out of control and scared from the start.

Visualisation is also important, as it means that the race becomes an event that you feel you have planned for and know what you are doing. If you have a mental run-through before the race itself, seeing every stage go to plan and you achieving the time that you want, then that will give you confidence when it comes to the real thing.

Of course, mental toughness really comes into its own when things start going wrong, be it weather conditions or injury. Again, visualisation can help here, in that you can imagine the most likely problems you will encounter – water station runs out of water, setting off too fast, feeling soreness in a leg – and then work out how you would deal with each of these eventualities. Having a plan means you are less likely to panic.

He also recommended a process known as centering, where you pull your focus back to the physical aspects of what you are doing when you feel fear and negativity set in. Very simply, you focus on what your legs are doing, how your arms are swinging and what your breathing rate and stride are like, to re-focus on the race rather than letting your mind pull you down.

I have always found distraction to be useful, talking to myself when the going is tough, and puzzling through life's little conundrums and boring admin. Many are the weekly dinner plans and to-do-lists I've made in my head on a long run and, while I rarely stuck to them, it was distraction enough to get me through another mile or two.

I also end up doing maths equations in my head when I am struggling, attempting to work out the percentage of the run I have done and how much there is left to go. I also tell myself "only x miles/minutes to go, how hard can it be?" over and over again, particularly on runs over five miles. Training for a half marathon will give you plenty of time to find out what works for you!

Whether you find running to music helpful or not is very personal. I sometimes do, but often feel too isolated from the world around me when wearing headphones – far from ideal, not least from a safety aspect if you are running on your own. Be aware both of your surroundings, if you do run with music, in that you may not hear traffic as well, and of the fact that some races don't allow headphones for safety reasons. So if this becomes critical to your running, make sure you choose a marathon where you can.

Building Fitness

Building both strength and running fitness requires slow and steady work. Many has been the runner who, on finding they actually quite enjoy getting out and pounding the pavements, decides to run every day, further and faster each time, before they are – quite literally – pulled up short with a hamstring injury or a shin splint.

At all times, but particularly when you are pushing your body to go faster and/or further, having rest days is as important as the training, as it is this that gives your body a chance to heal, consolidate what the muscles have learned and ultimately continue to grow stronger.

Getting injured is something you want to avoid at all costs, as this can mean weeks out of training, and then a slow and frustrating return to where you were. You will know your own body, and if you feel yourself getting overly-fatigued, or strains where there were none before, substituting a running session for other cardiovascular cross-training or a swim is acceptable. Just try not to do it too often, otherwise that time and/or distance goal may fade away over the horizon.

Another critical part of building fitness – and keeping your body working as well as it can – is warming up and cooling down correctly.

Your body has – most likely – been cramped behind a desk or in a car most of the day, reasonably static – and if you suddenly make massive physical demands of it, it is, not unreasonably, going to rebel. Make sure you do a complete set of leg stretches before you set out on a run, particularly if it is cold inside, aiming for five to ten minutes in total.

- Be sure to stretch your hamstrings – a good way of doing this is to lie on your back on the floor, and raise the leg you are stretching to point towards the ceiling, leaving the other flat on the ground. Maintain a slight bend in the knee (locking joints is never recommended) and pull the raised leg towards you, holding to feel the stretch.
- To stretch your upper calf, brace against a wall and keep the back leg straight while pushing the back heel into the ground while

keeping your upper body straight.

- To stretch out your groin, sit on the floor and press the soles of your feet together. Drop your knees as far down to the ground as you can while keeping your back straight.

The ever-reliable Runner's World site has a complete list of the stretches you should be doing, complete with illustrations -

<http://www.runnersworld.co.uk/staying-healthy/the-rw-complete-guide-to-stretching/484.html>. Suffice to say, you need to ensure that your hamstring, upper and lower calf and groin are all warm and stretched before you set off on the gentle jog that will precede your actual training run.

Likewise, when you return, tempting as it is to just slump on the sofa and stick the television on, cooling down the muscles that have been working so hard will help keep the blood moving and minimise soreness the next day. Repeat the warm up regime you did and, as before, stretch rather than bounce into the poses.

Nutrition also plays its part in building fitness, as burning the right fuels will enable your body to achieve its maximum sooner. You should be aiming for a high protein diet with enough carbohydrates to fuel you through distance runs. Sports drinks and gels certainly have their place in keeping you going on longer outings. These do not need to be part of the everyday and a balanced diet is what you should aim to be eating. While you will find it easier to run the lighter and fitter you are, bear in mind that a half marathon training programme makes huge demands of your body and you are better off eating well rather than trying to reduce your food intake to lose weight. Nutrition is covered in greater detail later in the book.

Training Explained

What people think when they hear talk of training programmes varies wildly – and what your experience of an actual plan is will also vary depending on your ambitions as well as any lifestyle constraints.

The key thing when choosing a training plan is to be honest with yourself. Choosing a plan that aims to get yourself round in a much quicker time than you suspect you can do is likely to be too tough and may cause you to lose heart and drop out. Likewise, following a programme that has you out five times a week when you commute to work and have a family may leave you struggling to keep up from the start and thus behind from the beginning, which is psychologically draining.

Instead, think from the reverse and work out what it is you need, and then look for a programme that suits. Most programmes are designed to help the runner following them achieve a specific time. The best ones, such as the Runner's World programme that I will talk about shortly, give you clues as to whether this is the programme for you, including looking at how far and fast you are running now. Obviously you are going to want to push yourself, but setting yourself a challenge that is too tough from the outset rarely works out well. Instead, go for a modest ambition – you can always aim for a faster time on the day if you are feeling good and have more in the tank.

I have always found Runner's World programmes to be comprehensive, thorough and capable of getting you round in the promised time if you put the work in. The site offers a greater range of more nuanced and time-specific training programmes for subscribers, but the free programmes are also excellent and have served me well over one marathon and a handful of halves.

The one I have chosen for our purposes here is this one - <http://www.runnersworld.co.uk/racing/rws-10-week-150-plus-half-marathon-schedules/99.html> - which is a 10-week programme aimed at both beginners and those who have one half under their belts already. For example, people aiming for a time of between one hour fifty minutes and two hours twenty minutes.

It has four training sessions each week, three of which are reasonably short and one long run which builds in distance each week up to 11 or 12 miles two weeks before race day. The weekly training averages out at about 22 miles a week over the four runs, which are to be carried out at varying paces and intensities.

The programme itself stresses, as I have already talked about above, that you should be able to run at least two miles three times a week before attempting a half marathon training programme.

Race Preparation

So, you've chosen your race and counted back ten weeks in your diary so you know exactly when to start your training programme, right? Yes, seriously – putting these runs in the diary is the best way of motivating yourself to get out and do them, particularly in the early days when establishing the training programme is still in its infancy and you may be struggling to fit everything in.

Make sure before you start that you're in the right mind-set – that you're not nursing any health worries or niggles that could impact on your training further down the line. Also that you've got appropriate clothing for any weather conditions that you could be facing – most important if you're likely to be training in the dark and/or wet and cold. You don't need to go overboard, but a couple of key purchases now could make your runs a few weeks down the line a whole lot more comfortable – and that is never a bad thing! This is a training programme, not an extreme endurance event – honest! eBay and the likes of Amazon are always good bets for cheap-but-good exercise gear, if money is an issue.

I always had a copy of any training programme I was doing taped on the back of the bathroom door, with the sessions I had completed ticked off so I couldn't kid myself that I was doing more than I actually was. There will inevitably be the odd session you have to miss, whether through illness or unavoidable life events, but try to keep these to an absolute minimum – and don't let one or two missed session spiral into a missed week, or a conviction that you won't be able to do enough training in time. You can – just buck up and get back with the programme and you'll be fine.

Another important thing to point out is that, in training programmes, trying to catch up missed sessions is rarely a good idea. Nor, for that matter, is pushing training sessions together and ignoring designated rest days – these are just as important as the actual training, as it is when your body rests and recuperates for the next session, as well as absorbing the fitness and muscle training imparted during the last session. While rescheduling the odd session is unlikely to do any harm, try to do a maximum of one every couple of weeks. I gave myself a shin splint (which was both painful and totally disrupted my training for two weeks) because I pushed a load of sessions

together so I could have a long weekend of fun with my sister. I wouldn't do it again – injuries are always frustrating, and knowing that essentially you are the cause of your own problems makes them even more so!

So – back to the programme. There are essentially three types of training runs on this and any other marathon or half marathon training programme. The long slow run, the tempo run and easy or slow runs. This programme, as I think is most common, has you doing two easy runs, one tempo run and one Long, Slow Run (known universally as the LSR) each week. The idea is that the three shorter runs can be completed in 20 to 30 minutes, and thus slot quite easily into the day, while the long run builds gradually in distance over the course of the programme. Ultimately, the aim is to build up endurance, but all runs, not just the long runs, are important to this.

So what do these mean? The easy runs are as you would expect – a set distance or time (it's time on this programme) that you need to complete in a time that feels comfortable to you, but which bears no relation to the time you are hoping for on race day. These are the training runs that get miles under your belt, if you like, and just get your legs used to being out on the road for increasing amounts each week. They also function as recovery runs from the harder sessions of the week.

The LSR usually comes at the end of each week of training, and the distance increases each week. This is your stamina run – building up how much you can actually run in one day, and increasing this after each week of successful training. Again, as the name suggests, it is not run at pace (ie the speed you hope to achieve on race day) but is run significantly slower as you acclimatise to the higher mileage. Occasionally, the mileage drops down on the week before and then requires a steady pace, but these will be flagged up.

Tempo runs are more about building your cardiovascular strength. They come in many guises and have many other names, such as fartlek or pyramid technique, but all essentially mean short bursts of sprinting amongst slower running. Again, these vary from programme to programme, and can be as vague as incorporating five 100m sprints into a session. I like the ones such as the programme I have chosen, which I will talk through in detail below, because it tells you exactly what to do, removing any fears or doubts in the novice about whether they are performing correctly.

So to begin...the programme does not lay down training days in stone, so consider what would work best with you before you start. Given that you

need a rest day to follow the harder sessions, an ideal training pattern would see you out on the road on Tuesday, Thursday, Saturday and Sunday, but adapt this if you need to.

One final point before we get into describing the programme proper – while it is recommended to do as much of your training as possible outside, a treadmill is an acceptable alternative as and when that is not possible. While you will still do the required mileage on a treadmill, the machine does pull your legs along to a slight extent, and, more importantly, your legs don't get used to the ebbs and flows of gradients that occur on all roads and fields, or how to run in wind and rain, meaning race day will be more of a shock than it needs to be. Obviously if it's snowy outside or you live in the middle of the countryside where outdoor running is impracticable in the dark then you have little choice, but if you can run outside I heartily recommend you do so.

Nutrition: Fuelling your Body

Training is a critical part of getting your body ready for a race, but the importance of giving the machine the right fuel to function cannot be over-estimated.

Food is not just about providing energy, its storing energy in the muscles, helping with muscle repair and generally keeping you healthy. In short – it's a crucial part of the training package for anyone who is serious about fitness or running.

Try typing 'nutrition information' into an internet search engine and you can quite quickly find yourself in very scientific waters. The basic facts of what you need to know to help your body with your training regime however are actually quite straightforward.

This runner's world article <http://www.runnersworld.co.uk/nutrition/nutrition-basics/246.html> is one that is very helpful for understanding the basics. It has some fundamental rules to follow: planning your diet; eating little and often, hydrating well, taking main meals seriously and getting the right mix of vitamins and minerals, as well as some race-specific ones.

Planning your diet

Planning your diet is less boring than it sounds – it basically means running a checklist of your day, and establishing any key areas that could do with improvement. Maybe you don't eat breakfast because you don't have time, or succumb to a 2pm chocolate or biscuit fix because you're not eating enough of the right foods during your main meals. Making some sensible changes could reap great rewards in moods and concentration, as well as in weight and fitness. You don't have to stick to a very restrictive diet alongside your training programme – I personally always found that training made me very hungry – but eating more of the right things is never going to be a bad thing.

Snacks also have their place, as grazing through the day prevents low blood sugar and tiredness, which can threaten to stop you going out for your evening run. The best snacks are high in carbohydrate and low in fat, such as bananas and other fruit or dry breakfast cereal.

But while snacking is good, your main meals are still just that – the most

important parts of your day. Here, again, high-carbohydrate foods are good – these include such runner staples as pasta, baked potatoes, rice and even baked beans.

If you are both eating balanced main meals and snacking as advised, you should hopefully be getting all of the vitamins and minerals that you need for general, as well as running, health. Taking a multivitamin is not bad for you, but it's much better to take elements such as protein and fibre in food-form, not least because you need the calories they give as well.

Fluids

One of the most important and easiest nutritional commandments to follow is to drink more water. Always more water. According to the Runner's World article, you should drink steadily throughout the day and then have a pint of water or a sports drink an hour before you run.

But it's not just important to hydrate before a run – you need to replace lost fluids during the run too. Runner's World recommends taking on board half a pint of liquid for every 30 minutes of running. Drinking up to five litres on days you run, particularly longer or intensive runs, is not unusual, although two to 2.5 on rest days is adequate.

What meals and when?

So now you know what you should be doing – but having the facts is only part of the solution. You also need to work out how you can incorporate eating what you need to within the confines of a busy life and training schedule.

Breakfast is normally an easy one to sort out. Toast and cereal are quick and simple to prepare, and porridge is sold at many cafes and workplaces if you don't have time to make your own – all of these make an excellent start to the day.

Making your own lunch to take into work or college is the easiest way to ensure you are getting all the elements in you want and need, but you need to think around this if you're pushed for time in the morning. Batch cooking something like a tuna pasta bake and then hacking portions off each morning is one plan, but buying a sandwich out will be far from a disaster as long as you choose a protein-heavy one. I used to keep dried fruit and cereal bars in my office drawer, so if I was tempted to snack I at least had some chance of keeping away from the chocolate machine. Some chance, at least! In addition

to this, try to keep to your five portions of fruit and vegetables a day.

Teatime used to be a bit of a tricky one for me, as I struggled to fit in a commute home, run and preparation of and eating of food in the space of a few short hours. I always wanted to get my run over with, but was so hungry when I got back that I hadn't always got the patience to prepare something healthy, and just ended up grabbing whatever was to hand. Not ideal. My solution to this was to plan something easy and nutritious on a run day, so either put a baked potato in the oven while I was out, or get the preparation for a stir-fry done before I went out so I could just cook it in minutes when I returned. If I was desperate – I use that term relatively lightly – beans on toast was never a bad option.

An important thing is not to beat yourself up if you have a bad day – or even a bad few days. There will be meetings where there are lots of sugary, fatty things to enjoy and evenings where pizza or a kebab after the pub happened. It really doesn't matter, as long as you're on track most of the time. Just bear in mind that the same principle applies to this as to missing the odd training session – don't let the odd day merge into the next and the next until it is the norm.

Training Program

Week One

So session one is a nice easy one to start off with, four miles at a slow pace. This is the easiest week of the programme, so take full advantage – the sessions are going to take longer and be tougher the further in we get.

Session two is another slow one – no tempo run this week – and session three is another four-miler, at whatever speed feels comfortable. This week is rounded off with a three-mile timed run. This doesn't mean that you have to go flat-out to get a great time, rather that you just give yourself an accurate assessment of how fast you're actually running at the moment. And when that's over, you're done – give yourself a pat on the back. You are officially in training for a half marathon and, more to the point; you're ten percent of the way through. Power to you!

Week Two

You're not going to notice a huge step-up from week one, as these programmes are about gradual improvements in speed and mileage. So session one is three miles at easy pace, while session two is three miles with a few 50m bursts thrown in. How fast you go and how many speed bursts you throw in is down to how you feel, but I'd recommend at least 10. If you're not confident on how far 50 metres is, run as hard as you can for the count of 25, which should be about right – again this is not an exact science! You should hit each burst as hard as you can, and not allow your breathing and heart rate to calm completely down in between them.

Going very slowly as you recover is completely acceptable – but try to keep jogging, even if you're barely above walking pace. These will get easier – short bursts of cardio are very effective at both boosting fitness and fat burning, so take heart – they're definitely doing some good! Session three this week is another three miles, again easy, and your LSR at the end is five to six miles slow. Take it easy, and just aim to complete it, without aiming for any particular time. One point to make – if you're going to be doing a hilly half, it's important to incorporate as many hills as you can into your training regime so that you get 'used' to them. If you're going for a flat race (I always do!), hills can still be useful as another endurance-building tool, but

are not quite so critical.

Week Three

This is where the programme starts to very subtly and gradually ratchet up. Your first session of the week is a four-mile easy. Note, easy, not slow. This is still way below race-pace, but should be at a speed that requires easy-to-medium effort to maintain. This will be personal to you, so keep listening to your body and how it reacts.

Session two is a tempo run again, but this time with a four-mile base-line and 100 metre bursts thrown in. Again, the schedule does not specify how many but I would be looking for at least ten. Once again, don't let your heart and breathing rates come all the way back down from their peak before setting off hard again. Some recovery is important, but it is building one on top of the other that will propel your fitness skywards. Your third session is once again a timed three-miler, but with a one mile jog at the end of the timed session, as you work to up your weekly mileage. Seeing if you can shave a few seconds off the time you posted for the same difference almost two weeks ago makes for a fun challenge, but is not critical to your progress, so don't be disheartened if you don't beat it this time.

Your LSR this week will see you running 7-8 miles at a slow pace, with the option of replacing it with an hour-long run and not measuring distance. Your call – for what it's worth, I have always found knowing how far I'm running (and thus how far I have left) very motivating during runs.

Now it's time to pat yourself on the back again. Assuming you did an 8-miler, you pushed out 20 miles this week, already significantly more than the 14 of the first week. Hopefully you're not feeling it in your legs too much, but if you are a hot bath will do wonders. And also more stretching, always more stretching!

Week Four

You're hopefully getting used to being out four times a week and gradually upping your mileage. This should see your confidence about the race and how you can perform in it is growing too.

With week four we begin as before with a four-mile easy while your second session, the tempo run, is a four-miler with several 30-second sprint

bursts. As you have not sprinted this hard before, you should aim for significantly less than the ten bursts I have recommended previously. I think one a mile would be sufficient, with one or two more thrown in if you feel up to it and want to rise to the challenge! Session three is a simply a four-miler, at whatever pace you feel up to. Session four, the LSR, is either a slow eight-miler or a one-hour run, whichever you feel up to.

So...suddenly we're coming up to the halfway point of the training programme, as we enter week five. Quite often I have had little crises of confidence around now in my training, as I didn't feel I was going far or fast enough to be able to tackle a full half in just a few short weeks. But it's important at this stage, and indeed at any stage, to keep your faith in the programme and its methods. It's been drawn up by experts, who know their stuff, with the exact aim of getting you round that half marathon in good shape and in the time you want, so hold firm in that self-belief!

Week Five

This is another slight gear change, with the tempo run the most intensive yet and either the first ten-miler or a 10K race at the end of the week. The first session calls for either a four-miler or 35 minutes easy, ideally off-road. The tempo session is next up, with four to five miles of fast-and-slow, with sprint bursts uphill but not down, on the menu.

Session three is the same as session one – four miles or 35 minutes easy, ideally off-road. Session four brings with it a major choice, for the first time, of either a 9-10 miles steady (ie a step up from easy, which is itself a step up from slow) or a 10K race. Which you choose is entirely down to what appeals most and what practise you think you need.

If you're confident about the race – and indeed have a few 10K ones under your belt - then I would recommend going for the ten mile option. It's a psychologically good distance, in that it's double figures, and whatever else happens in your training regime (and unpleasant surprises or injuries can of course happen at any time), then, providing you healed in time, you could still consider yourself prepared with a ten mile run under your belt. Indeed, for the first half I did, I didn't run any further than that in my training, and so my 13.1 miler on the day was the furthest I had ever run. It was tough, but knowing I had done ten before powered me on through the final 3.1. Ten miles is also, indisputably, a distance run and gives you a chance to find out

what your body does under pressure and when the going gets tough.

On the other hand, if you have very little or no race experience, you may want to go for the 10K race option to give yourself an idea of what to expect at the main event. While you do essentially just turn up and run, there are many things that seasoned racers become practised at, such as knowing how much to hydrate on the morning of the race, when to stop hydrating so that they don't need to wee every mile, and what works best in terms of breakfast and nutrition on-the-run.

Other considerations you may not otherwise give thought to include:

- how you are going to stay warm once you have handed your bag to the baggage truck (common answers range from old training gear you can throw away, to something you can hand to any supporters you have with you, to bin bags (really!))
- how you cope with running your own race in a pack and stop yourself being pulled along at too fast a pace
- whether you want or need to use sugar hits such as training gels, and if so which ones agree with you.

None of these may sound earth-shatteringly important, but all can have a negative impact on a long race if you get them wrong. Better to have a practice run, if you are at all unsure. This will save you mucking up your main race with something simple that could easily have been resolved beforehand.

So, make your choice without too much agonising – neither is wrong, and either will bring benefits to your training programme and continued fitness spike. Then give yourself a big, hearty slap on the back – you're officially halfway through training, and you just have to see another five weeks through and it will be you versus the half marathon you've been training for so hard – whoop!

Week Six

Welcome, so good to see you. You will notice that this week, while not easy, is very much a consolidation week after the exertions of week five, so use it as intended and give your body as much rest as you can around the sessions.

Session one is a three-four mile easy on soft ground, while the tempo

session has two longer bursts this week. It starts with a one-mile jog, and then asks for two lots of five-minutes fast, with a five-minute recovery jog in between. Finish off with a cool-down jog. Obviously you're not going to be able to maintain your 100-metre sprint pace for a whole five minutes, so don't go off quite as fast as you would for a sprint burst, but do still run as fast as you can. I would recommend, from bitter experience, not clock-watching while running at speed. Falls are brutal when they happen, and ruin that session at the very best. If you have a Garmin GPS watch or similar, consider downloading the programme onto it, as it will then give beeps to signify the beginning and end of sprint elements, leaving you to just get on with the actual running.

Session three of this week is a four-mile easy on grass, while the LSR is once again a 9-10 miler, this time without the 10K race option.

Week Seven

This is a good time to assess how the training programme is working for you, and whether you are managing the training load. While some niggles and soreness are to be expected when you're running roughly 22 miles each week, if you feel it's getting too much, consider dropping down to 15 miles in week nine, but otherwise keep following the programme.

Week seven again has two deceptively easy sessions – one, which is three to four miles easy, ideally off-road and three, which is three miles on grass. While this may seem odd as we gear up to the race itself, bear in mind that these sessions function as recovery sessions from the harder ones, giving you a chance to just get out and run freely to keep your legs ticking over. Trying to add sessions in, or increase on the designated mileage for any run at this stage is a very bad idea – and the only likely results are injury and tiring yourself out. If you feel fresh and as though you have more left to give, then that is good – you don't have to be shattered after every session for this training programme to be effective, but don't let the idea that you could be doing more take root.

Mixed in with the two easy-ish sessions is a tempo session of three miles including a few short bursts and a 10K race in place of an LSR, with a warm-up beforehand and a ten-minute jog or walking cool down afterwards. While ideally you would take part in an actual race to give yourself more practice, don't fret too much if there's nothing that suits or close to you. You can map

out a 10K/6.2-mile route yourself using Google maps or local knowledge – just be sure to stick to lit paths and areas if it's going to be dark when you go out.

Week Eight

Suddenly we're up to week eight, and the race is looming. Try not to worry too much about that though, and concentrate on training as well as you can for the next three weeks, in addition to taking care of yourself and doing what you can to stay illness and injury-free. While you have hopefully been following a reasonably good diet up until this point, now is a good time to vow to make it extra good up to and including the race to give you the best chance of running the time you're training for.

This is the toughest week left now, so once you're done with these four sessions you're very much on a taper down for the actual race. So hold the faith (again!). The first session of the week is a four to five mile easy off-roader. Running this distance, whilst never effort-free, should now feel very natural. You may struggle for the first few minutes as you warm up – talking to my runner friends, most of us take a few minutes to hit our groove on every single run – but when you do find your rhythm, you should find a run of this distance quite straightforward. Having said that, every now and again you will encounter a run that feels hideous all the way round for no good reason. Sorry, but it's true. The main thing is do if this ever happens to you is to write it off as just one of those things, and not start to panic that your running fitness has deserted you. It hasn't – you're just having an off day and the next run will be fine.

The tempo session this week starts with a one mile jog, before two lots of seven-to-eight minutes fast, with a five-minute recovery jog in between. Then cool down before stretching. Session three is a four-miler on grass, with a few short bursts thrown in, while the LSR will certainly be the longest you've ever run before if this is your first half marathon – 11-12 miles, as slow as you like. Don't let the distance intimidate you – you're just seven sessions off the race you've been training for, so you're more than ready to complete this distance. Make sure you treat it seriously, though, eat well and hydrate in advance. You will also need to take some water and sports drinks or gels with you (or have a plan to stop and buy some en-route), so treat this as another race day prep session. This probably won't be an issue on race day as there

will be drinks and most likely sports drinks provided around the course. On which point, it's a good idea to check you can stomach whatever will be the official race day drink, as you won't be given a choice. It's entirely down to personal taste – all the major brands are effective. I always liked Lucozade Sport but couldn't stand the taste of Powerade, so would take my own supplies if I knew that was being handed out. You can buy drinks belts from a range of providers that allow you to click on pouches or fill up bottles of varying sizes, but it's best to try these before you buy as you don't want something that's going to rub or chafe.

Week Nine

Week nine is now upon us, and the training is easing off a bit to give your body a chance to be fully rested for race day. Note that the number of sessions does not decline, but the amount of miles you pound out does. It's still important to get out for the sessions slated in the training programme – don't make the mistake of thinking that because the home straight is in sight you can just wait it out without doing any more training. That said, if you've got any niggles or are feeling ill, now is a time when missing a training session (bar the LSR) will arguably have less impact than at any other stage in the programme. Don't run yourself into the ground (pun intended) so close to race day if you're not feeling on top form, but do be honest with yourself.

So, what does this week have in store? Well, session one is a three-four mile easy on soft ground, while the tempo sessions mirrors last week's but with shorter bursts. The one mile warm-up job is followed by two blocks of five minutes fast, with the all-important five-minute recovery jog in between. Session three is a four mile easy on grass, while the LSR is 9-10 miles slow. Depending on whether you choose this distance or the 10K option at the end of week five, this is now your second or third go at this distance, so it should be feeling a bit more natural – and the idea of adding another 3.1 on the end on race day not quite so scary!

Week Ten

Week ten and we are now into the taper proper. Not least because the fourth session this week is actually the half marathon itself, so there are only three proper training sessions left – not just in this week but in the entire training programme!

So session one is a three-mile easy off-road, your tempo session is two one-mile jogs with one mile at race speed in between, and session three is a two mile jog. And that is it! Training over, bring on the race!

Race Day Tips

Mental Attitude

Completing the training programme is a massive and crucial part of your half marathon race preparation, but there is more to consider that could also have a significant impact on your race if you don't take it seriously.

One is your mental attitude. Obviously you're likely to be nervous, particularly if this is your first half marathon and you haven't run this distance before. This is absolutely normal and not a problem. But it is very important that any nerves don't tip over into prolonged self-doubt, or give rise to thoughts that you're not prepared and that you can't do the race. You need to go in with sky-high confidence if you've got any chance of running your target time. You don't need to have a massive ego, just keep the fact that you have prepared well and properly for this and there's no reason why you can't succeed at the front and centre of your mind at all times.

Positive mental attitude really does make a difference to how you run, not least because you'll get drained so much quicker if you're constantly telling yourself how hard it is, how poorly you're running and how stupid you were to ever think you could do this. The odd low moment is to be expected, both before and during the race, but banish it with positive thoughts, centring on how well you have prepared and everything that is going right with your running style and the race.

It's also recognised that if you're feeling low already, any additional race fun and games such as turning your ankle, or getting a calf cramp, can make you feel miserable enough to throw in the towel. However, with the right attitude you will see these for the minor inconveniences and annoyances they are, but not let them spoil your race, even if your target time now seems unlikely. Unfortunately, life can sometimes get in the way of the best laid plans, in running as in other things, and a variety of things out of your control, such as illness and the weather, can mean you don't get to run the race or grab the time you deserve. It's annoying, but you have to accept it can happen and just cross your fingers that it doesn't.

Practicalities and Fuel

So, with training and mental attitude covered, that just leaves practicalities and fuel – food and drink to you and me.

It sounds obvious, it is obvious, but the last thing you want or need on the morning of the race is a big rush and stress because you either haven't left enough time to get there or there's a transport issue that you haven't accounted for. Do make sure you read through all of the bumf you're sent with your race entry to make sure you're up to speed on all the details.

- Do you have to take any ID or payment with you to the race?
- Do you have your running number already or do you have to pick it up?
- What times does the race start, where does it start, and what is the latest you can leave your bag for the finish with the storage lorry?
- Can you run with earphones in?
- Where are the drinks stops and does that feel like enough for your personal needs, or do you want to take some extra?
- What will you wear at the start line is if it cold after you have handed your bag in?
- Do you have a timing chip that you need to put on your trainers?
- How soon before the start of the race do you want to arrive?

These are all important questions that you need answers to, and the sooner, the better.

Bear in mind that there will likely be long queues for the toilets (although going in any nearby bushes is accepted behaviour if you're desperate) and possibly also for getting bags tagged before they're stored. If you need to visit the help tent, because you've lost your number or have some other problem that could prevent you racing if not fixed, then factor in plenty of time for that as well.

Lectures on being organised aside, you also need to consider carefully what you put into your body to fuel it, particularly the night before and the morning of the actual race. 'Carb-loading' is a phrase you will hear bandied about a lot by serious long-distance runners, and basically refers to stuffing yourself full of slow-release energy in the day or two ahead of a big race.

In practice, this usually means a good, stodgy carb-filled meal (something like pasta with tuna and cheese, or a baked potato with cheese or beans) the night before. Ideally avoid alcohol, and have plenty of water.

On the morning itself, you will hopefully have an idea of what works best for you from trying out various options over the LSRs and practice races of the training regime. For me, it was always Weetabix or a Bran cereal and toast with peanut butter, but you will know what is right for you. Whatever it is, just make sure you have finished around 2.5 to three hours before the race to give it a chance to settle. Keep drinking – water as well as tea and coffee if you want it – up to an hour before the race, but then stop. Otherwise you'll be wanting a wee very quickly and will have to join the portaloo queues (or find a handy bush) with all of the other people who have got their hydration strategy wrong – and there will be plenty of them! If it is extremely hot, have a few slurps of a sports drink five minutes before the start – but no sooner! On the way round, drink as you feel you need to, obviously – your body will be working and sweating it out then so it shouldn't have such a marked impact on your bladder.

One key thing to be wary of is not getting carried away with the speed of the crowd, and being forced into a much faster pace than you have planned for or can keep up. Everyone tends to get excited at the start of the race, and you can easily be carried along. The best way to avoid it is to have your own pace watch, so that you know what you are running as opposed to what you need to be running.

Aside from keeping your head, keep your eyes out for other runners and hazards such as discarded water bottles. Another important tip concerns water or sports drink stations. These are usually well signposted, and take the form of long tables or line of volunteers standing along the roadside. Most runners veer in as soon as this starts, when actually running past the first few people and then ducking in for a drink may be less of a scrum. In my personal experience this is also one of the most likely chances for injuries, as people are veering in across the road to get their drinks, and then out to get going again, most likely discarding their bottle as they do. Don't fear them – and certainly don't avoid them, but do watch your footing and be aware of the people around you to minimise your chances of coming a cropper.

My last point should also go without saying, but it's worth mentioning just in case - race day is not a time to try anything new, be it equipment, food or

drink. It is a time for using things you're happy with and know will not cause you pain.

Post-Race Recovery

So the race is over, hopefully you're happy with the result – but whatever, it is done. You probably expected to have some aches and pains as a result of your endeavours, and that is realistic, but there are things you can do to minimise both any pain you feel and how long you feel the after-effect for.

The first and most important thing you can do happens immediately after the race – no matter how tired you are, do not just stop – your muscles will seize up and it will not be pleasant. Slow to a jog and then a walk once crossing the finish line (yeah!) and keeping that going for up to ten minutes if possible as your heart rate comes down.

Refuel

Sip on sports drinks and water to refuel, and make sure you eat something with the first hour of finishing – something high carb and ideally containing up to 25 per cent protein as well is best. Your body needs a lot putting back in after all your efforts as it begins the very early stages of muscle tissue repair, so give it all the help you can. Eating little and often, rather than one big hit, in the first few hours after the race is the best way to get most of the goodness into your muscles.

Stretch

Stretching, while you may not feel like it, is also important now, to ease your muscles tightened by hours on the road. In the short to medium term, plenty of liquids, good food and sleep are the best way of combating muscle fatigue and pain.

If you can face an ice bath, many top level athletes swear by them. A sports massage could help in the day or two afterwards (although, if you've never had one before, be aware it's a lot more about deep muscle pummelling than it is about relaxing, as per ordinary massages!) and getting out for a short run a few days after (known as a recovery run) is often also beneficial. Don't get back into any serious training for a couple of weeks though. While some short runs, swimming or cross-training is fine, do give your body a chance to heal properly before you jump into training for the next big thing.

Tactics for Becoming a Better Runner

So, you've completed your first, and maybe even second, half marathon, and you want to keep going. To get fitter, faster, thinner – better. Set a new, better personal best and push your body to its limits to see just what it is really capable of. It's entirely possible and a laudable aim – but how do you go about making it a reality?

One important thing is to stay realistic. Yes, if you keep training and keep eating well you are likely to continue getting faster and faster, but overtraining can still cause injury problems, so only train at recommended volumes. Hopefully you were lucky enough not to pick up an injury training for this programme, but that does not mean you will always escape scot-free and thus can begin abusing your body. Rest days remain important – many a runner has tried to ramp up too much, too quickly and then been stopped in their tracks for several weeks, at best, by something like a shin splint, where only rest will fix it. That can be very frustrating – trust me, I know – and nothing makes you angrier with yourself than the knowledge that you are the agent of your own destruction.

If you want to get serious about running, joining your local running club is a very good idea for many reasons. You will meet like-minded people, many of them running veterans who have a wealth of advice that they are happy to pass on. You may even meet some elites, or good for age (GFA) runners, who qualify for races such as the always-oversubscribed London or New York Marathon because of their superior running times. Clubs also offer structured training regimes that you can hook into – most likely a mix of paced runs, long Sunday runs and tempo sessions. Having these booked in can help boost your motivation if you're struggling to find the get up and go to go out for a run. It's also great for safety in the darker winter months, and saves you having to plan your own training routes. Not to mention how much faster training runs go when you have someone to chat to or pace yourself with.

Also consider having a regular (say monthly or bi-monthly) going over by a sports physiotherapist or sports masseur. This will hurt, but it will also sort out any niggles or imminent problems before they start having a serious impact on your running. I always visit one during training. A few years ago

when I started getting a very painful left hip after I had run 15 miles or so, I visited the physio who examined me, and declared it to be a problem which was radiating from my calf and knocking the rest of my leg out of kilter, manifesting itself as my problematic hip. Some (very painful) deep tissue massage and muscle-unknotting later, the problem was solved and has never recurred.

It may also be worth getting professional advice about your running technique. The vast majority of runners, probably virtually all, contemplate speed and distance when starting out, and very little attention is paid to posture and technique. While that may sound crazy – everyone can run, right? – it's certainly true that some running techniques are more efficient and less likely to cause injury than others. If you're having consistent leg or foot problems, you can also be taught to strike the ground in a different way, using a different part of your foot first, to hopefully eradicate this.

You might also want to consider adding cross training to your regime – this is an excellent way to build general fitness without the added injury risk of adding lots more miles to your weekly total. Cardio fitness – so bike, rowing or cross-trainer – will benefit your running stamina and strength, and complement your existing running training. It also helps to mix-up your overall training regime and stops it from becoming dull – which can in turn lead to boredom and skipping sessions.

In the same vein, mixing up the running session you do each week is a good plan to keep things fresh. Take some time to look over the hundreds of articles and programmes out there to find the bits which most appeal to you.

And finally, accept that your running will not always follow an upward curve. Even if you continue to train effectively, there will be bad races and periods where you feel sluggish for no good reason. These will pass, so don't let them deter you from your goal – or being the best runner that you can be. Good luck!

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