TRAINING ADVICE
From slow and steady rides to long and hard hill training, learn how to train properly for the big night.

KIT
From bib shorts to shoes to bike lights - we tell you what to wear to stay comfortable in the saddle and stay safe and seen.

NUTRITION
You are what you eat. Learn how to fuel your body as the Km get longer.

VIDEO LIBRARY
Watch and learn. Learn invaluable riding techniques and see what it’s like to ride in a pack.
A Note From the Author

Training for a long distance bike ride is a daunting prospect - especially if you have never cycled much before.

Having trained for and taken part in countless Sportives, as well as advised many riders how to prepare for them, I hope this guide helps to give you a good idea of how to best prepare for your ride.

Whether you’re riding in the Nighttrider 50k or 100k, it’s an incredible event which is challenging, but well within the means of everyone - provided you put in the training and learn how to ride safely with others.

Safety

Cycling with other riders is a skill you will have to learn before the event along with (of course) cycling in the dark. All events are made as safe as they possibly can be, but it’s essential that you follow the advice of the Organisers and learn how to ride in the dark and with other safely.

For your benefit and safety, in this recent update to our training guide you have free access to the new GH Training Video Library, which features a range of tutorials such as:

• How to ride in groups
• How to climb hills
• The importance of cadence
• Cycling safety

Enjoy

We hope you enjoy your training and find this guide useful.
Please use the accompanying training plans to help you structure your weekly training rides and get in shape for the big day.
Introduction

Congratulations – you’ve done the hard part!

Although the hours of training you have ahead of you in the coming months are going to present some challenges, the most difficult step to take is committing yourself to a ride in the first place; so well done on taking the plunge – you won’t regret the experience.

The prospect of cycling in a race for up to 100 km can be intimidating in the early stages of training, especially if you do not class yourself as “fit”

But don’t panic - with the help of this guide your confidence will grow week on week and very soon that “daunting” 50 or 100 km ride will soon become one you can’t wait to take part in and tackle head on.

Have Fun

Despite the physical and mental challenges that the upcoming weeks of training have in store for you, the predominant aim of clocking up the kilometres should be enjoyment.

Cycling is fun, social and incredibly good for you, so if you can, hook with up with a group of friends or a local cycling club and train in the company of fellow riders.

Not only will this enhance the enjoyment of your training rides, but it’s great practice to learn the skills and etiquette of riding in groups.

Get a check up

Before you embark on your first training ride, if you are not a regular exerciser I strongly suggest that you first of all take a trip to your GP.

A quick check up on your blood pressure and general health will give you the medical “green light” to start training with the confidence that your heart and lungs are in good shape to take on the challenge ahead.
Information Overload

Typing the search string “cycling training” into Google will give you over 130 million results.

With the choice of websites, book recommendations, magazine subscriptions, blog posts and forums, it can sometimes be difficult to know if the information you are reading is accurate, safe or specific to your physical ability or needs.

With 130 million hits available to choose from, the overwhelming amount of advice available is where many charity riders can get confused and even overcome by the depth and complexity of training and technical information available.

So, if you wish to seek additional training advice beyond this guide, to avoid being swamped by information overload, follow these tips:

Buy a book

A book from a reputable publisher has far more credibility than a random website claiming to be a leader in cycling training. Authors are selected for their knowledge of the subject so you can be confident that the information you read will be good quality.

A wide selection of books can be found on Amazon, so click here for a few gems!

Be realistic

At its most competitive, cycling training is complex. Although this guide covers certain aspects of advanced training drills, some training philosophies you’ll come across are simply not applicable to the event you’re undertaking.

Until you become competent and have several events under your belt, it’s best to embrace the basic forms of training first before you dive head first into highly scientific and complex training practices.

Ride and train at times and at an intensity which suit you, your goals and your lifestyle. Start from there and you’ll find it far easier to choose the training regime which best suits YOU!
BIKE ACCESSORIES
They might not be the coolest bits of kit, but certain bike accessories are vital for training.

CLOTHING
What to wear and what not to wear. You’ll be cycling 50-100km so you’ve got to be sure you’re wearing the right clothes.

HELMET
Without question THE most important piece of kit you need.

SADDLE
The last thing you want is a sore bum - make sure you have the right saddle.
Bike Accessories

If you're new to road cycling, it might surprise you how many accessories you'll need to take with you when your Km get longer and you find yourself a long way from home.

Watch the above video to give you an idea of some of the most important items you'll need to pack on the bike.

For the record, here are our top 4:

**Saddle Bag** - It's amazing how much you can keep in a saddlebag, so choose it's contents wisely and have peace of mind that if you find yourself in a bit of a pickle, then you'll have something in your saddlebag to get you out of a predicament.

**Money** - Knowing you have some cash on you for those long training rides can be a real comfort. Whether it's to buy more sports drink, more carbohydrate rich snacks, a coffee or even for a cab home - always keep at least £10-20 in your bag in case you ever need it.

**Spare Inner tubes & tyre tool** - At some stage during your training, it's highly likely that you'll get a puncture, so it's vital that you carry one or two spare inner tubes with you. You'll be amazed at how easily they fit into your saddlebag. Remember to store a tyre tool along-side the spare inners - or you might have a few problems getting the old one off and the new one on.

**Multi-tool** - Whether it's to re-adjust your saddle height or tighten up other parts of your bike, a “multi-tool” is essential.
Night Riding

Although a lot of your training will be done during the day, you will still need to fit a fair few “night time” training rides into your schedule, so you can get accustomed to cycling in low light conditions.

It’s a good idea in the latter half of your training, to do at least one or two training rides a week in the dark. You can learn what to look out for and ensure your kit and night time bike accessories are in good working order.

Bike Lights
Like so many things, you get what you pay for and seeing that you’ll be riding for hours in the dark in race day, it makes sense to invest in high quality bike lights.

Bike lights, even high quality ones, do not cost too much and could very easily save your life. To get the right lights for you and your bike, it is strongly advised that you seek professional help from your local bike shop. There are several places where lights can be mounted and a professional will be able to tell you the best lighting set up which best suits you and your bike.

Reflective Tops
Reflective tops or strips are vital when riding at night so that you are clearly visible from oncoming traffic and other road users.

There are a wide selection of hi visibility and reflective tops on the market so there is no excuse to be dressed inappropriately in low light. Even if you buy just one reflective top and/or a selection of visibility strips, the small investment is well worth the money.

Reflective Strips
Reflective strips can be purchased as an additional form of visibility and can be applied just about anywhere such as your helmet, gloves, bike handles, bike wheels or your top.

Their adhesive properties ensure they are fastened well onto whatever surface you apply it to and can give you peace of mind that any light shone on them - it will make you visible to any oncoming traffic.
Night Riding Tips

Like so many things in cycling, if you use your common sense when cycling at night, you’re going to be fine.

All that being said, if you are new to riding at night, there are a few tips that will really help to give you confidence to take your bike out at night and clock up some kilometres.

Visibility

The one thing you must be vigilant about when riding in the dark is to make sure you are visible. Obvious maybe, but it’s amazing how many cyclists you see out riding at night either without any rear lights on their bike or without a high visibility top on.

Take spare batteries with you on a night ride in case they run out on your rear lights / front and throw on as many high visibility clothes as you can.

Be safe - Be seen
Cycling Clothing

The choice of clothing available to cyclists is extensive - and it can be expensive.

There are short and long sleeve tops, cycling shorts, cycling bibs, waterproofs, gilets, thermal tops, gloves etc any item of which could blow your budget in one go.

For example, one brand have a lovely pair of cycling gloves that can be all yours for an eye watering £70. For gloves?!?!

Fortunately, not all cycling clothing is expensive and if you shop around and choose the right brands, you can pick up decent quality kit at very reasonable prices.

High prices doesn’t always mean high quality!

Shorts or Bib Shorts?

When you’re sitting in the saddle for hours on end, you’ll soon realise just how important a quality pair of cycling shorts are, but do you opt for shorts or bib shorts?

The difference between shorts and bib shorts is that the latter feature “over the shoulder” straps, which keep the shorts in place and prevent them from moving around.

Although you can get away with wearing shorts in the early stages of training when your mileage is low, you’ll regret not investing in bib shorts when the Km spent in the saddle begin to creep up.

TIP:

When you’re looking for a pair of cycling shorts, make sure the “seat pad” is suitable for long distance rides. Some shorts are designed for shorter distance riding where the seat pad is not as cushioned, not something you want when you’re cycling for 100 km.
**Tops**

Most cycling tops are made from spandex or lycra and are very effective at taking sweat away from the body and encouraging it to evaporate, thereby keeping you cool.

If you have come from a running background, then many running tops are also made of a similar material so there’s no reason why you can’t wear them on a bike when you first start your training, but as the Km increase, you’ll need to get yourself a proper cycling top.

Cycling tops have 3 (sometimes 4) really useful pouches at the back, just above the waistline, where you can keep sweets, energy bars and your mobile etc - all of which vital when you are out on long training rides.

**Gilet**

For rides in cold weather, it’s best to opt for several layers rather than one thin one on cool days and a wind breaker jacket is worth its weight in gold when the wind picks up.

Gilets are fantastic in cool conditions as they keep the body warm, but keep your arms free to move and handle the bike.

Some long sleeve winter tops can double up into a gilet by featuring detachable sleeves. These are ideal for those morning when you begin a ride in cold conditions, but then heat up as the sun (and you) get warmer.

**Waterproof**

In wet conditions, a good quality waterproof jacket is vital to help you stay dry but at the same time offer your warm body ventilation so that it can breath and not accumulate high levels of sweat.

Wet weather jackets often help to protect you from the wind as well, so choose carefully and your investment will be well worth the money.
Gloves

The need for gloves, even on short training rides, is often underestimated by new riders, but once you've been on a sweaty ride or two without gloves, you'll soon understand why they are so important.

When it comes to cycling training, it’s not the insulating properties of gloves that you need - but the grip they can give you as your palms slowly accumulate sweat. Not only do sweaty palms make it hard work to grip the handlebars but the safety aspect of poor grip is also a consideration.

Although the majority of your training rides will go smoothly, there will be times when you need to take sudden evasive action by turning the handles one way or another.

If your grip is poor due to sweaty palms, there's a good chance you could take a fall, so do not forget to put cycling gloves on your shopping list.

Sun glasses

Far from being simply a fashion accessory, sun glasses are essential for nearly every ride and not just when the sun is shining.

Sunglasses can help keep insects, dirt and the wind out of your eyes, making sure you can keep your eyes on the road ahead.

There's nothing worse than having something lodged in your eye and spending even just a few seconds with one hand on the handle bars whilst the other attempts to remove grit from under your eyelid.

Some models have interchangeable lenses, which are ideal for Nightriders. By swapping to clear lenses for night time cycling, you can protect your eyes from dirt without reducing light.
Always wear a helmet

Without doubt, a cycle helmet is by far the most important cycling accessory you can buy.

It's importance is summed up perfectly by the Brain Injury Charity Headway:

“All cyclists should wear helmets, particularly vulnerable road users such as children who do not possess the same level of competency or experience as adults.

The evidence is clear: cycle helmets can save lives and help prevent lifelong disability. This fact has been proven by numerous peer-reviewed, published scientific studies and is shared by well-respected professional bodies including the British Medical Association, the Association of Paediatric Emergency Medicine, the Bicycle Helmet Initiative Trust and numerous doctors and neurosurgeons across the UK.”

There are some cyclists you’ll come across who will disagree with the importance of wearing a helmet and refuse to wear one. Although everyone is entitled to their opinion, it’s an opinion that the overwhelming majority of the health and safety experts do not agree on.

You will not be allowed to take part in an event if you do not wear a helmet, so get one fitted and NEVER ride without one.
Get your Saddle Height Right

If you already own a roadworthy bike, or you are borrowing one for your upcoming challenge, it is essential to ensure that your saddle is set at the correct height.

Incorrect saddle height is one of the most common mistakes riders make during training and racing, yet it is so easy to check for yourself without the need of an expert.

If the saddle is too low - you are not giving your legs the room they need to generate maximal power to the pedals. This leads to poor cycling efficiency and premature fatigue.

If your saddle is too high - your legs will struggle to reach the pedals at the bottom of the cycle, causing excessive hip shift. This can lead to “certain parts of you” feeling a little uncomfortable and again limiting your potential to generate power through the pedals.

Wrong saddle shape - If your saddle is simply a wrong fit for your bum and riding position, you’ll find that the longer you stay in the saddle, the more uncomfortable you’ll get. Long term, an incorrect saddle can cause painful saddle sores and make cycling incredibly uncomfortable.

To give you a more visual insight into this, click on the video above to see how to get your saddle height right.
THE TRAINING
Get in shape for 100 KM

CADENCE
Learn about cycling cadence and why it’s important when you’re cycling long distances.

GOAL SETTING
It’s important to set yourself realistic goals when you begin training. Learn how to set goals for your ability and ambitions.

TRAINING INTENSITY
There are times and places for speed training, hill training and long and slow sessions - learn when those times are.

INDOOR TRAINING
When the weather is rubbish, sometimes indoor training is more effective and a lot safer.
Training for your Event

Now for the serious part – The Training!

Training for any event, be it cycling, running or even walking, can be pretty daunting at the beginning.

You look at the training plan and all you see is 12-16 weeks worth of training sessions - with total weekly distances growing from as little 20 Km in week one to over 130 Km in the penultimate week before your event.

If you are not used to regular training and all this is very new to you, please do not panic.

The best way to look at any training plan, is to simply break them down into small chunks.

In the beginning, it's only natural to be intimidated at what training you'll need to be doing in 2 months from now, so it's far better to just look 2 weeks ahead instead.

Set Mini Goals

By setting yourself mini-goals and mini targets, it'll make your training far less intimidating and you'll be amazed at just how well your legs and lungs adapt to the regular Km and actually how feasible the latter weeks of training will soon become.

Listen to your body

When it comes to physical activity, we are all different and respond to training in very different ways.

Some people adapt very quickly to training, whilst others may take longer to adapt and find the going that much harder.

This is the reason why you should always listen to your body and do what feels right. If you feel good following the training plans and are not suffering from excessive fatigue or soreness, then all's on track, but if you are finding it difficult and struggling to keep up, then take some time off and re-evaluate.

It's your body and it's vital that you train within your means - no one else's.
Cycling Cadence

Your cycling cadence is the speed of the revolution of the pedals every minute (rpm).

Knowing what your cadence is when riding is a great piece of information to know so, if you can, try and fit your bike with a cadence sensor. You can pick them up fairly cheaply these days and are worth every penny. Click here to take a look.

Why is Cadence so important?

Riding at the correct cadence during training, trains your legs to pedal at the most efficient speed for long distance rides, meaning that you'll be able to pedal for longer without getting prematurely fatigued.

Watch the video above to explain in more details why cadence is so important for sportive cyclists.

What is the ideal cadence?

Not all experts agree on what the “ideal cadence” is, but British Cycling recommend that if you’re training for a sportive, then you should be looking to ride at a cadence of around 85-95 rpm.

For inclines - if the incline gets very steep, you may need to reduce your cadence to 65-75 rpm or sometimes lower, but whenever possible, keep those legs spinning at a high cadence. You’re legs will thank you in the latter stages of your long rides.
Training Goals - Be Realistic

Let’s be honest, unless you are retired or have no family/work/social commitments finding the time to train for your event is always going to be difficult.

It’s important to accept this fact right from the word go so that you don’t get over-whelmed with all of life’s demands being placed on you at once.

This can lead to anxiety, stress and make the whole training experience a thoroughly un-enjoyable one.

The key to a successful and enjoyable training campaign is to use the following mnemonic:

**B** - Be realistic with your training. You’re not a full time athlete so do not expect to be able to train 6 days a week. Earmark 3 sessions you can commit to in a week and anything more than that is a bonus.

**I** - Include the family. By getting your friends and family on board and understanding that at times you might not be able to attend certain functions due to training, it will make you feel less guilty about training and letting your loved ones down.

**K** - Kick out unnecessary habits. Although it might sound like a hardship, if necessary you might have to ditch the occasional weekly habit of drinks with the lads/lasses once in a while if you’re struggling to fit in training. It need only be temporary but with such busy lives, sometimes you have to make the occasional sacrifice to find the time to train.

**E** - Expect the unexpected. Illness, injury and family commitments - at least one of these three will have an impact on your training at some point in the next 12-16 weeks. Expect it and deal with it when that time comes. No training regime is perfect and it helps to expect these things to crop up every now and again so it doesn’t come as a massive shock.
Training Principles – Keep it Simple

If there is one aspect of cycling which not only divides opinion but causes a huge amount of confusion with novice riders – it’s the differing theories on training.

For you, as amateur / recreational cyclist who is just stepping into the world of cycling, I cannot stress the importance of keeping your training simple.

Try not to get too overwhelmed by the vast array of complex training sessions you will undoubtedly read about on the internet.

Avoid Complicating training

This is not to say that all the training information on the internet is over the top, unnecessary or incorrect, simply that often, these complex training sessions are far better utilised by riders who have been cycling for years and have already built up an excellent base level of fitness.

If or when you feel you are ready to learn more about the scientific side of training, my advice would be to buy a good book on the subject.

Bloomsbury publish an excellent range of cycling books so they are well worth checking out if you fancy pushing yourself.

The sessions outlined on the next few pages will help to give you an idea of some “entry level” training sessions you can do in order to develop your cycling fitness to a good level and get your legs and lungs ready for your event.

**Vary your training**

Not all the sessions are compulsory, but throwing in some variety to your training by including some hill or high intensity rides can help mix things up a little and help to supercharge your fitness.
Training Intensities

On your very first day of training, or preferably well before, you should know the answer to this very simple question:

**What is your ultimate goal?**

By answering this, it will make the planning of your training regime far easier and help to give you focus for the next few months.

Your goal will have a significant impact on how you should approach training and therefore how you tackle every training ride.

Whatever your goal, remember that enjoyment is by far the most important aspect of both the training and race day itself.

If you no longer begin to enjoy training, it's worth considering revising your training plan and find a way to put the fun back into it.

**Make the Finish** - If all you want to do is build up a good enough level of fitness to get you from the start to the finish, then your main focus will be on long distance rides – base training - and slowly building up your weekly mileage as the event draws nearer.

**Competitive** - If you want to be able to go from start to finish at a certain pace and finish under a certain time, then your focus will have to incorporate both progressive long distance **rides at the weekend and intense interval training during the week.**

**Hill Training**

Whatever your goal, hill training will need to feature in your training, so make sure you start planning some hilly routes for later on in your training.

Start off with small and gentle inclines and as you get fitter, increase their length first and then try to tackle steeper hills.
Types of Training Intensity

Classifying training intensity is not as straightforward as you might think.

There are several different ways that cycling coaches / experts / organisations classify training zones and intensities, which can make it all very confusing.

Let's keep it simple

To go into detail about different types of training zones (or levels as they are sometimes referred) is beyond the scope of this guide, so let's keep it simple.

Even if you do not consider yourself a serious or competitive cyclist, the following training zones are still important for you to understand as the different training intensities should feature in your training schedule.

The Six Zones simplified

For the more experienced cyclist among you, you'll be familiar with the “Six Zones” of training where Zone 1 is very low intensity and Zone 6 is very high intensity.

The following table is effectively the “Six Zones” put into three easy to understand categories - Basic, Intensive and Maximal.

<table>
<thead>
<tr>
<th>TRAINING INTENSITY</th>
<th>R.P.E. 1-10*</th>
<th>% OF MAX HEART RATE</th>
<th>SESSION DURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>BASIC (ZONES 1 &amp; 2)</td>
<td>1-3</td>
<td>42-63</td>
<td>1-6 HOURS</td>
</tr>
<tr>
<td>INTENSIVE (ZONES 3 &amp; 4)</td>
<td>4-6</td>
<td>63-83</td>
<td>30 MINS -2 HRS</td>
</tr>
<tr>
<td>MAXIMAL (ZONES 5 &amp; 6)</td>
<td>7-10</td>
<td>83-100</td>
<td>4 MINS - 45 MINS</td>
</tr>
</tbody>
</table>

*R.P.E - Rate of Perceived exertion (how tired you feel)*
Training in the Six Training Zones

Now you are familiar with the six training zones, you are now far better placed to know how hard you should ride during each training session.

In the GH Training Plans for beginner and advanced riders, you'll notice a suggestion of the zone you should be spending most of your time in for each given training ride.

For example, for your long rides, you should looking to spend most of your time in the “Basic” Zone (Zones 1 and 2).

There will of course be times when you'll drift out of your suggested zone, but the zones indicated in the plans simply suggest if the session is:

- **Basic** - You should be looking to spend most of your training in this zone. It’s recommended that 80% of time spent in the saddle should be in Zones 1 and 2. You should comfortable and not finding yourself trying to catch your breath. It is easy to hold a conversation at this pace. In this zone, the body learns to utilise fat as an energy source far more efficiently, thereby reducing your reliance on your limited reserves of carbohydrate.

- **Intensive** - This intensity is a step up from basic. It requires that much more effort and a degree of concentration to stay in this zone. You'll find yourself breathing heavily, but able to maintain this intensity for anywhere from 30 mins to 2 hours. Zones 3 and 4 are the “sweet spot” intensity and should be undertaken at least once a week to help build up your resistance to fatigue.

- **Maximal** - Training in this zone is hard work. You’ll find yourself in this zone when climbing up hills and when performing interval sessions. You’ll be breathing very heavily, unable to talk and feel your legs burning as they fight to contain the accumulation of lactic acid. Training in Zones 5 and 6 is hard, but necessary if you want to build tolerance to hill climbing and fast cycling.
Indoor Training

As ideal as it would be that every training ride we do will be in beautiful sunny conditions, the reality is that this is Britain and you're bound to experience inclement weather at some stage during your training.

There will be times when it's just a case of bracing yourself for a unpleasant ride in a stiff breeze and some cold drizzle, but there will also be times when your safety must come first if Mother Nature is making conditions really unpleasant.

Indoor training sessions certainly have a part to play in any training plan and can be incredibly useful for tracking your progress and helping you carry on riding in an event of icy, wet, windy or snowy conditions.

There are several options for indoor training:

**Stationary Indoor bike** - Whether you have one for your home or you use one at the gym, indoor bikes are great at keeping you in shape and are able to offer you a variety of different training sessions.

Whether your “weapon on choice” is a Watt bike, a spinning bike or a conventional stationary bike, always make sure the saddle and handle bar height is the same as your road bike so that your ride position is identical to the one you’d adopt on the road. Ramping up that resistance dial to mimic long and/or short steep climbs, offer the legs and lungs an incredibly good workout to help improve your lactic acid tolerance.

**Turbo Trainers** - Turbo trainers are an excellent alternative to stationary bike. With a turbo trainer, you can simply attach the rear wheel of your road bike to the device and pedal way. They are excellent value and although you can spend hundreds of pounds on one, many models are as reasonable as £100. Like stationary bikes you can alter the resistance and simulate hill climbing as well as speed sessions, so if you are on a budget and think you'll be doing some of your training inside, a turbo trainer is well worth the investment.

If you are the competitive type, you might be interested in connecting your (compatible) turbo trainer to your computer and join the Zwift community, where you can race against other riders online.
HEART RATE MONITORING
Train smarter - not harder

NOT JUST FOR THE PROS
Heart rate monitoring is not something that only serious riders should use - it’s for vital everyone.

BASICS
Learn the basics of heart rate monitoring and how to ride in the right training zone.

NO MORE GUESSING
Heart rate monitoring helps keep you riding at the right intensity - taking the guess work out of training.
Working out your Maximum Heart Rate

The first thing you need to do before anything else, is to either estimate or find out what your maximum heart rate (MHR) is, so that you can then train at certain percentages of that figure.

There are several ways to work out your maximum heart rate, but we'll deal with the two most popular - the lazy way and the hard way!

Lazy way

Although not always that accurate, the following method can help to give you a “ball park” figure of what your maximal heart rate may be.

**You simply subtract your age from 220 (if you're a man) and 226 (if you are a woman)**

So, let's take a 40 year old man and a 40 year old woman as examples:

- **40 year old man** = 220 - 40 = 180 bpm
- **40 year old woman** = 226 - 40 = 186 bpm

So, based on this method, the maximum heart rate of a 40 year man is **180 bpm** (beats per minute) and the maximum heart rate of a 40 year old woman is **186 bpm**.

Hard way

In short, the way you do this is to warm up for a long time and push yourself as hard as you can incrementally.

> **When you feel you can no longer keep pedalling and have reached your physical limit, take a peek at your heart rate.**
> **This figure is likely to be your maximum possible heart rate - or at least very close to it.**

The best way to do this is on a hard hill climb, after a good hour on the bike, but I stress that if you're not a regular exerciser then you should not put your body through this test.
Working out your Heart Rate Zones

Once you have a good idea of what your maximum heart rate is, then you can start working out what your training zones are. These zones are slightly different to the previously mentioned Training Zones, so be careful not to get confused.

You’ll find suggested heart rate training zones in any manor of training literature, so it’s a good idea to work out what yours are, so that you can then try out an array of “heart rate based training sessions.”

**IMPORTANT**

The following training zones are purely suggestions and can vary greatly from person to person depending on a range of factors such as gender, genetics and fitness levels.

Do not feel compelled to stick to one particular training zone if a session feels either too easy - or indeed too hard.

**Example:** Let’s take the example of a 40 year old man, who has a maximum heart rate of 180 bpm.

His training zones will be as follows:

<table>
<thead>
<tr>
<th>ZONE</th>
<th>HEART RATE</th>
<th>%MAX HEART RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>90 - 108 bpm</td>
<td>50-60%</td>
</tr>
<tr>
<td>2</td>
<td>108 - 125 bpm</td>
<td>60-70%</td>
</tr>
<tr>
<td>3</td>
<td>125-144 bpm</td>
<td>70-80%</td>
</tr>
<tr>
<td>4</td>
<td>144-161 bpm</td>
<td>80-90%</td>
</tr>
<tr>
<td>5</td>
<td>161 bpm+</td>
<td>90% +</td>
</tr>
</tbody>
</table>
Training Zone and Heart rate Zones

As mentioned, there is a similarity between “Heart Rate zones” and “Training Zones”.

It is very easy to get confused between the two but unless you are a professional cyclist, there is very little difference.

For both heart rate zones and training zones - **Zone 1** is an easy ride and a low intensity and **Zone 5 (Zone 5 & 6)** is a hard ride and very high intensity.

To help un-fog any confusion, look at the table below which will help to clarify things a little:

<table>
<thead>
<tr>
<th>HEART RATE ZONE</th>
<th>TRAINING ZONE</th>
<th>COMFORT / INTENSITY LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1-2</td>
<td>A very easy pace and one which is so gentle you’re hardly noticing that you’re cycling.</td>
</tr>
<tr>
<td>2</td>
<td>2-3</td>
<td>A nice easy ride on the flat and an intensity at which you are easily able to hold a conversation. This zone and zone 3 are your “long ride” zones.</td>
</tr>
<tr>
<td>3</td>
<td>3-4</td>
<td>Not massively stressful, but you’ll need to concentrate. You certainly know you’re exercising and you’ll certainly get a bit of a sweat on after 10-15 minutes.</td>
</tr>
<tr>
<td>4</td>
<td>4-5</td>
<td>Ok, so now you’re training. Only possible to sustain for fairly short periods of time (the fitter you are the longer you can hold this pace for though) and a zone which is very good at improving your tolerance to fatigue.</td>
</tr>
<tr>
<td>5</td>
<td>5-6</td>
<td>A zone where you lose your sense of humour. This is a very hard pace and one which you can’t hold for very long. The fitter you are the longer you can sustain this heart rate.</td>
</tr>
</tbody>
</table>
CONFUSED?
Nutrition is both complicated and often contradictory. We've simplified it to make it easy to understand.

CARBOHYDRATES
How much, what types and when - we give you the low down on the essential carbohydrates

EATING WHILST RIDING
Learn what and when to eat and drink when in the saddle.

HYDRATION
Water or Sports drink? The answer is both. Read on to find out more.
Cycling Nutrition

Getting your nutrition right for both training and the event itself is far more important than many people realise.

Get your hydration and food right and your training sessions will be fruitful, energetic and highly effective but get it wrong and you’ll find that you’ll feel sluggish, lethargic and unable to get the most out of your training rides.

The world of nutrition is complex.

You just need to pick a few health magazines and you’ll see just how rife with contradiction the world of nutrition is and often packed full of unnecessarily complicated formulas on how often and how many of the key nutrients we should be eating.

For the purpose of this guide, the following pages will give you an overview of the basics of sports nutrition so that you know the types of foods and drinks you should be consuming in order to meet the energy demands of training.

By all means, seek further nutritional advice from books and articles but be aware that the more you read, the more chance there is of you getting confused about the plethora of contradictory sports nutrition theories and philosophies out there.

The best advice is to do what you feel is right for you.

Rule number 1
Don’t get complacent about your nutrition. The right types and quantities of the food you consume is vital to keep your energy levels up and see you through a hard day in the saddle.

Rule number 2
Eat a balanced diet rich in fruit and vegetable everyday including all the major food groups such as Carbohydrate, Protein and Fats.
Choosing your Training Fuel

We are all different in so many ways and this includes the way we utilise food as a source of energy.

Some riders will find that they need to eat large quantities of carbohydrate rich foods in order to meet the energy demands of their training whilst others may find that they can get by eating relatively small amounts of carbohydrate and utilise the energy from proteins and fats to meet their training demands.

If you are a regular exerciser and have run or cycled for many years then you may already have an idea which foods suit you for training, but if you’re just starting out in regular physical activity then the next few pages are essential reading.

Carbohydrates

Vilified by some, yet revelled by many in the sports nutrition world, carbohydrates are essential to fuel you throughout for your training – and of course for the day of the event itself.

Carbohydrates are stored in your muscles and liver as “Glycogen” and are key for providing the muscles with the energy you need to meet the training demands.

As a general rule of thumb, the more intense your training session, the heavier your body’s reliance is on stored glycogen.

If you try to push yourself hard with no carbohydrate in your system, you’ll feel lethargic, tired, dizzy and even nauseous, so make sure your diet is rich in carbohydrate.

Good sources of carbohydrate include:

- Potato
- Pasta
- Rice
- Bread
- Cous Cous
- Oats
Carbohydrate Timing

Understanding that carbohydrates are an essential nutrient to fuel your training rides is one thing, but knowing **when to eat them** is another.

Getting the timing of your carbohydrate consumption wrong is something so many cyclists do, yet the difference it can make to your performance is huge.

**Timing is everything**

Contrary to popular belief, the rich carbohydrate meal you eat before a training session (often porridge or muesli for those who train in the morning) is **not** the meal ultimately responsible for fuelling your upcoming ride. This meal will certainly help to top up your current carbohydrate storage levels and to raise your blood sugar levels after a long night's sleep- but your **pre-ride** meal is not nearly as important as your **post-ride** meal.

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**Why is your post -ride feed so important?**

After exercise, your body realises it has expended a lot of energy and therefore knows it has to replenish stocks in time for your next training session. Courtesy of your ingenious hormonal system, in the few hours following training, your body releases a hormone into your blood stream which encourages the storage of carbohydrate back into the liver and muscles. If you’re going to eat carbohydrate - eat it after training and get your body stocked up and ready to go out again next time.

**So, in the first 2-3 hours after your ride, get some carbohydrate rich food into you and replenish your energy ready for your next ride.**
How much Carbohydrate?

As explained, we are all different and we will all have slightly different carbohydrate needs.

In the early stages of training where energy demands are not excessive, as a rough guide, you should be looking to get around 50% of your total daily caloric intake from carbohydrate rich foods.

There is no reason to increase your daily carbohydrate consumption as you'll already have sufficient energy stored away and ready to be utilised.

However, as training intensity and regularity increases over the weeks, you'll have to be a little more aware about the amount of carbohydrate you eat and be aiming to increase your total daily carbohydrate consumption to about 60% of total calories consumed.

When your long rides last beyond 2 hours and your mid-week sessions start to get a little more intense, the table below will help to give you an idea of how much carbohydrate you should be eating:

<table>
<thead>
<tr>
<th>DAILY GRAMS OF CARBOHYDRATE PER KG OF BODYWEIGHT</th>
<th>INTENSITY / DURATION OF TRAINING</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-6</td>
<td>Moderate (60 minutes or less)</td>
</tr>
<tr>
<td>6-8</td>
<td>Long Duration (1-4 hours)</td>
</tr>
</tbody>
</table>
Snacking on the Bike

As you progress through your training plan and your long rides increase in distance, you are going to have to start to think about snacking on the go.

It is vital that you keep your carbohydrate levels topped up as time in the saddle increases from 1 hour sessions into energy sapping rides lasting for over 3-4 hours.

Stayed Fuelled

If you forget to snack on carbohydrate rich foods whilst riding for long distances, you’ll soon begin to run low on energy and struggle to keep your pace up. Running out of carbohydrate mid ride is called “bonking” and for own safely, must be avoided. Symptoms include fatigue and dizziness.

Every rider has their own preference as to what they like to snack on, but the most common choices are the following:

**Sugary snacks** - Jelly babies, jelly beans or even Haribo are excellent snacks you can store in the rear pocket of your cycling top and reach round for every 20-30 mins on long rides. Sugary snacks will ultimately help to keep your blood sugar levels up and will ensure you are well fuelled up during rides lasting several hours.

**Carbo Gels** - By far the most convenient form of sugary snack are energy gels. These contain the perfect balance of sugars and electrolytes and have been manufactured to be easy on the digestive system. Top brands include SiS and High 5. Like Jelly babies, they give you an instant hit of glucose, to help replenish expended carbohydrate.

**Energy Bars** - As well as your jelly babies or energy gels, it’s also advisable to take a higher calorie snack bar or two with you. These help to provide you with a carbohydrate rich snack and help to significantly replenish your expended carbohydrate stores. Towards the end of your training and on race day itself, you’ll be needing at least 2-3 high calorie energy bars, so try to get used to carrying them in the rear pockets of your cycling top.

Learning how to reach round for them, open them up and munch on them whilst riding is a skill in itself, so make sure you practise this knack during training rides so that come race day you are competent at it.
Hydration

One of the common mistakes made by novice cyclists is failing to hydrate properly during long rides.

Although you can get away with not drinking anything during short rides lasting less than an hour or so, dehydration can become a real problem when the rides get longer.

Both what you drink and how much you drink is vital for your performance and health on long rides, so use the following tips to help you get your fluids right.

For a more tongue in cheek and humorous take on what you shouldn't drink whilst cycling, watch the video above.

Avoid the dehydration trap

Unlike running, it is sometimes very difficult to know how much fluid you are losing when out riding for long periods of time.

The extra speed you travel at when hurtling down hill as well as riding on open roads, exposes the body to a lot of wind, which helps to cool the body down and evaporate sweat.

As a result, it’s very easy to forget just how much you are sweating and the first sign is often one of a decline of performance or sometimes ill health.
How much fluid do you need?

It is almost impossible to give an accurate answer to this question.

Although elite athletes will know what their hydration needs are courtesy of a series of lab tests, us mere mortals need to make an educated guess.

Our hydration needs vary greatly on a variety of factors such as:

- Ambient temperature
- Humidity
- Ride intensity
- Ride duration
- Fitness Levels
- Individuality

We all ride at different speeds and will therefore sweat at different rates, making your hydration needs very individual. Fortunately, there is a way to give you an idea of your rate of fluid loss.

Working out your hydration needs

Although we don't have access to sports scientists or labs which could work out our hydration needs, there is a way we can get a rough idea for ourselves.

Although very crude, the following method can be used to give us an idea how much fluid we lose on a one hour bike ride.

Immediately before you get on the saddle for your ride, step on your bathroom scales and jot down your exact weight. As soon as you return from your one hour ride, before you visit the bathroom or re-hydrate, step back on the scales and mark down your weight again. Your rate of fluid loss during your ride will vary enormously depending on the length of your run, ambient temperature and humidity.

Although some of your weight loss will have come from lost glycogen (carbs) and fat stores, the majority will be a result of fluid loss through respiration and perspiration.
Water or Sports Drink?

Thanks to the power of advertising, you’d be forgiven for thinking that it would be irresponsible – even detrimental to your health – if you set off for a run or a ride without a full bottle of sports drink to keep you hydrated for the duration of your training.

As seductive and as convincing as the advertisers are, do not be fooled into thinking that you need to rehydrate with a sugary sports drink for every training session.

**In many cases, water will suffice, particularly in the early stages of training.**

When your training distances are low, water is all you need to rehydrate your cells and prevent you from becoming dehydrated. However, when the Km and length of time in the saddle begin to get longer and longer, there is certainly a greater physiological need to rehydrate with a sports drink.

Sports drink contain around 7-10% sugar and small amounts of salt, which both help to replace fluids lost through sweat and also to keep blood sugar levels up.

To give an idea how to choose between water and sports drink, take a look at the table below:

<table>
<thead>
<tr>
<th>Exercise Intensity</th>
<th>Drink Selection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Ride - lasting less than 45 minutes.</td>
<td>Nothing or Water</td>
</tr>
<tr>
<td>Basic Ride - lasting several hours.</td>
<td>Water and Sports Drink</td>
</tr>
<tr>
<td>Intensive Ride - lasting less than 60 mins</td>
<td>Water</td>
</tr>
<tr>
<td>Intensive Ride - lasting more than 60 mins.</td>
<td>Water and Sports Drink</td>
</tr>
</tbody>
</table>
Drinking in the Saddle

Even if you are only heading out for a short ride, never leave home without a full bottle of water or sports drink.

Although you may not need to drink that much on short rides, it's always best to leave home with more fluid than you think you need - just in case.

There may not be a physiological need to rehydrate on short rides, but for training, it's a good idea to get in the habit of taking fluids with you and also to give you plenty of time to practice drinking whilst in the saddle.

Don’t get complacent

Complacency is often to blame for most (self-inflicted) incidents whilst riding and taking one hand off the wheel to take a sip of drink, although not particularly difficult, is certainly a moment where complacency can set in.

In that split second when you have one hand on the handles and one on your bottle, all it takes is a pot hole in the road or an uneven surface to throw you off balance and put you in trouble.

Drinking and eating safely whilst in the saddle is a skill which must be mastered before you ride on busy roads and certainly before your event, so take a look at the video above and practice the suggestions made.
Countdown to Race Day

In the week leading up to the event, it is so important that you take time off training and rest your legs for the big day(s).

After weeks of hard and regular training rides, this rest can be very frustrating and it's likely you'll feel like a caged lion desperately wanting to get out and exercise.

By all means take to the road, but resist the temptation to ride far or to ride hard.

By resting your legs now, you'll find that they will feel fresh and energised for your event helping you to enjoy the day far more.

Get Organised

In the final week (at the latest), it is vital that you check your bike thoroughly and get everything organised early for the big day.

If you are not familiar with servicing your bike, I strongly suggest you book it in at your local bike shop for a check-up to make sure everything is in good working order.

Even the smallest of problems fixed now could save you a lot of hassle later on half way through your ride, so book it in NOW!

It's likely that this check up will only cost you £30-£40 and will be worth every penny for the peace of mind it will give you, that you will go into the race with a professionally serviced bike.

Get in touch

Although it's likely that you've been in regular contact with your charity, it's still a good idea to get in touch with them and go over any last minute details which you are unsure of.

Make sure you know exactly what to pack and what time you are meeting up with a charity representative – one mistake and you'll be left very red faced!