

Your First Time Trial

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Time trialling is an ideal introduction to competitive cycling. It's just you, your bike, and the stopwatch. **Dan Joyce** tells you how to get started.

What is a time trial?

Time trialling is the simplest of competitive formats: a race against the clock, with riders starting a minute apart. It's known as the 'race of truth' because there's nowhere to hide, no one to draft behind; just you and the bike and the thumping of your heart. Oh, and a clock ticking.

Most events are fixed distance, being 10, 25, 50 or 100 miles. There are also fixed time events - 12 and 24 hours - with the objective being to ride the furthest you can. Courses are on public roads and are either 'out and back', using a roundabout to turn halfway, or circuits with consecutive left turns. You can take part on any roadworthy bike except a recumbent. Normally you need to be a member of a Cycling Time Trials-affiliated cycling club.

Thirty seconds," the timekeeper calls out. The starter holds you up while you clip into your pedals. Deep breaths. "Ten seconds." Your pulse is rising, your mouth goes dry. "Five, four, three, two, one..." You're off! Out of the saddle, you're powering down the road to get on top of your gear.

For the next half an hour your lungs will work like bellows. Your legs will strain on the pedals. Your nose will run. You'll be effortlessly overtaken by a skinsuited cycling machine who set off four minutes back, his disc wheel roaring like a Star Wars TIE fighter.

At the finish you'll suck in ragged gasps of air, feeling so shattered you want to be sick. So you'd be forgiven for asking: where's the fun?

Why do it?

Well, it's nice when you stop. But there is more to it than that. Once you've got your breath back, your body is swimming with endorphins. It feels good. And at some primal, work-ethic level, it's satisfying to have ridden at 100 per cent capacity, to have learned where your limits are. There's a sense that you've used the time productively, having seized the day rather than let it drift by.

It doesn't matter what your fitness level is, whether you're 22 or 82, male or female. If you can ride 10 miles on a public road then you can ride a time trial.

It's not like a road race, where if you fall off the pack your race is over. Since the slower riders set off first, finish times cluster together. You'll automatically get your personal best time (PB) in your first time trial. Whether it's 31:07 or 25:12, that's your target to aim at next time. It doesn't matter what time anyone else got - first and foremost in a time trial, you're racing against yourself.

Where to ride

Time trials take place on measured courses on public roads open to traffic. Accordingly, riders are obliged to follow the usual rules of the road. Historically, time trials were shrouded in secrecy as cycle racing was banned on British roads. By riding separately, time triallists could be seen to be 'going about their normal business' rather than racing. Riders wore inconspicuous clothing and courses were named with a recondite code system - such as V415 - that's used to this day. Nowadays the secrecy is gone, although it can still look a bit impenetrable. A time trial start will see a group of cyclists in a lay-by on a Tuesday evening. The course start and finish might be small marks on a kerbstone. Only a few marshals in brightly coloured vests and perhaps some fold-out signs saying 'cycle race in progress' indicate that there's anything going on. It's not like popping down to the leisure centre. Yet it's not as cliquey as it may appear, and most local cycling clubs are only too happy to see new faces.

How to race

If you want to ride more than one or two time trials, you need to join a club that's affiliated to Cycling Time Trials, the sport's governing body. There are more than 900 around the country, and membership costs around £10 per year. The



club secretary will send you a list of club events, and you can ride any of them. As well as the annual membership, you pay an on-the-day entry fee, from £1 to £3. That's local club events. Open events are bigger, attracting riders from across the region or sometimes the country. You have to register in advance for an open event and the fee will usually be a bit higher; typically £8 (2008). You don't need a racing licence for either type of event; membership in a CTT-affiliated club is sufficient. If you're under 18 - the minimum age is 12 — you must have a parent/guardian's authorisation.

You can have a go at time trialling without first joining a club, because many also run 'Come and Try It' events. The idea, as the title suggests, is that you come and try it to see if you want to join the club. You'll need to check with your local club's secretary to find which events are 'Come and Try It'.

Equipment

All you need is a roadworthy bike. That includes mountain bikes and tourers but not recumbents. If you're 18 or under you have to wear a safety helmet (an aero helmet is allowed only if it's up to approved safety standards). If the bug bites, you might decide to get an aero race bike. To begin with, a decent £500 starter bike will be fine. This could be used for training or day rides if you later upgrade to a better model for racing.

Assuming the bike is at least half decent, with road tyres, the biggest effect on your speed (apart from your fitness!) is not the machine but your position on it. You make up the overwhelming bulk of the air resistance, which is what mostly stops you going faster. So don't wear baggy clothing, and make sure your handlebars are as low as they can comfortably go.

To get more aero still, fit clip-on tri-bars. To get a good fit on your tri-bars, you may need to get a different stem.

Upgrading your tyres is another way to go faster. Many starter bikes come with 25mm training tyres; they won't roll as well as decent 23mm (or narrower) race tyres.

Perhaps the biggest improvement will come from using a heart rate monitor because it will tell you how hard you're trying. Budget models are available for under £30. Mount the HRM to your handlebar or tri-bar where you can see it. Many time triallists like to use a bike computer instead of or as well as an HRM.



Training

You don't need to train at all to do your first time trial. You'll want a base level of cycling fitness, but if you're a regular cyclist you'll have that. Nevertheless, the effort level will come as a surprise. Have a go at riding flat out for several miles, just so you know what it feels like. Use this opportunity to check that your riding position is okay when riding at full speed.

If you want to do some training, remember that any training regime is only going to make a difference over weeks, not days. Add to the frequency of your rides rather than the intensity. That's your fitness base.

If you want to get your body used to 'changing up a gear', try some basic Fartlek training. Go out for your normal ride and after you've warmed up, pick a landmark you can see - like a tree or house-and race up to it. If it's close, sprint. If it's half a mile or so harder but don't flat-out sprint. Once you've reached it, ease off for a few minutes, then repeat.



During your training regime, make sure you don't do any hard rides for a couple of days before the event. Your body will be covered.

On the day

You don't want to race on a full stomach - but you don't want to race when you're starving either. Have a carbohydrate-rich snack, like a banana sandwich, three to four hours before the event, and drink plenty of water.

Most local events require that you arrive at least 15 minutes before the start. Build in some spare time. You'll probably sign on for the race with the timekeeper beside a car boot. The timekeeper will then hand out race numbers. These are safety-pinned to the back of your jersey, right at the bottom not high up on the back. Ask someone to pin yours on for you.

As you'll be one of the first riders off, double check with the timekeeper how-much time you've got before you start and exactly where the start is. If you've got time to spare, ride down the road a bit to warm up. Riding out to the event can be a useful warm up if it's local enough, but remember you'll have to ride home, too!





Get to the start with a couple of minutes to spare. At one minute to go, you'll get in position. Make sure you're in a gear you can accelerate away in. At 30 seconds, the starter will - if you wish - hold you up. Take some deep breaths, clip into and orient your pedals.

Don't slaughter yourself in the first few miles. You need to get into the ride - find a rhythm for your breathing and pedalling that's hard but sustainable. Try not to let your mind wander. Keep half an eye on your heart rate monitor or bike computer, or count your pedal strokes for one leg (one, two, three, four) and then the other, and repeat.

Other riders will come past you. Don't worry about it. When you can see the finish, give it everything. Keep riding straight past the finish. Return to where you met up before the race - not the start. Don't hang around the timekeeper or try to talk to him. He'll be over with the results shortly.

Have a drink. Get your breath back. And when the timekeeper reappears, go and find out your time. So, how did you do?

It doesn't matter what time anyone else got - first and foremost, you're racing against yourself

Beginning Timetrialling – The Basics

Copied from CTT website: - <http://www.ctt.org.uk/> and modified by Mike Marchant (December 2008)

Over the years the Regulations governing time trials have grown and become more complicated. This makes it difficult for the newcomer to the sport to find the important things they need to know about time trialling before riding in a race. These notes contain the main features from the Regulations relating to racing and competitor's behaviour but in no way do they detract from or alter those regulations.

Minimum Age

The minimum age for competitors is 12 years. This is in the interest of safety as most time trials are conducted on open public highways and it is not practicable to try and supervise all minors throughout the event. It is therefore essential that young competitors know the Highway Code and are competent to ride on the roads alone, and have the authorisation of their parents to compete (if under 18 years of age).

Time Trial Races

The minimum distance for a time trial is generally 10 miles but shorter races are permitted. Most races are at either fixed distances (10, 25, 50 and 100 miles) or fixed time (12 and 24 hours). Riders start at one minute intervals, or sometimes more, and cover the course as fast as they are able alone and without taking pace from other competitors or vehicles. When a competitor gets caught by another one the Regulations require the overtaken rider to fall back to a distance behind the other one where he/she is getting no shelter or help from the faster rider. At least 50 yards/metres is required.

Safety

When time trial courses are designed safety is a major consideration. However, ultimately it is the competitor's conduct which determines how safe a course is. The races are held on open roads and competitors must obey the law of the land relating to road travel before, during and after a race. Competitors must be responsible for their own safety and also avoid creating situations which are unsafe for other road users.

There are a number of points which will help the beginner, and others to enjoy safer racing: -

- A cyclist is less likely to be seen than a car or lorry by drivers of vehicles. You need to remember this when approaching any road junction. To improve visibility from the rear (as well as identifying the rider) all riders are required to wear a bright fluorescent number. This needs to be positioned on the rider's shorts from the waistband downwards, or as near to that position as possible since an overhanging jersey would cover it in that position. The number should not be positioned high on the back like a runner's numbers are.
- U-turns in the road are another hazard as drivers of vehicles are not normally expecting another road user to make this manoeuvre. It is CTT policy to eliminate U-turns from courses and to reduce their use where they cannot be avoided. They are also a hazardous manoeuvre both before the race whilst riders are warming up or circling in the road prior to starting and after the race when riders return to the result board or to their cars.
- Head down riding is another major hazard as the rider will not see an obstacle on the road. Even on a Clearway cars may stop at the side of the road due to breakdown or to consult a map or for some other reason and it is no good saying "The car should not have been there". The answer to that is "You should have seen it". This type of accident is one of the types covered by the Regulation about the observance of the Law and if the rider is found to have contravened this regulation then a suspension from competition is normal.
- Any road junction or roundabout can constitute a hazard in a race. Competitors are travelling much faster than motorists are used to seeing cyclists moving and this may cause the motorist to make an error of judgement. Be ready for it. Slip roads joining and leaving dual carriageways and other major roads are places where care is particularly necessary due to the long distance where a cyclist can be between two lanes of merging traffic or vehicles leaving the main carriageway at high speed.

Accidents

If you have an accident during a race, no matter how minor it may seem, you are required to report it to the Event Secretary as soon as possible.

The Bicycle

There are some restrictions regarding the equipment which you can ride in a time trial. Your brake levers must be positioned so that you can get to them quickly in the event of an emergency from your normal riding positions. Clamp-on Triathlon bars with forearm supports, and equivalents, may be used. A solid disc wheel may be used at the rear of your bike but must not be fitted as the front wheel. Spoked and composite spoked (tri-spoked) wheels may be used in the front and rear wheel positions. Under no circumstances may streamlining devices be used.

Clothing and Advertising

Clothing for time trials is generally a short sleeved racing vest and cycle racing shorts which cover the upper part of the thigh to just above the knee. Nowadays this is often a one-piece skinsuit. The wearing of a helmet is recommended for all and is compulsory for all Juniors.

The subject of carrying advertising on race clothing in time trials is complicated. Basically if you are a member of a sponsored club (or a professional) you may carry your sponsor's name(s) on your race clothing. Other than that nobody may carry advertising on their race clothing in a time trial (except in club events) except, where the manufacturer puts his name on one of the products which he makes. Thus cycling shoes with the name of the manufacturer, e.g. Sidi, Look, etc, may be worn but a racing vest or hat with the name of somebody who did not make it, e.g. Raleigh, Campagnolo, your local cycle dealer etc, may not be worn unless they happen to sponsor your club.

Entering Races

Whatever type of time trial you are entering you must be a member of a club which is affiliated to Cycling Time Trials.

Being a British Cycling Federation (BCF) or Cyclists Touring Club (CTC) member does not generally qualify you to ride time trials unless your BCF Division or CTC District Association is affiliated to Cycling Time Trials.

If you are entering an Open event (i.e. one listed in the CTT Handbook) the closing date by which the organiser must receive your entry is usually just under two weeks before the race. It is advisable to send your entry just a little bit earlier than this to allow for delays in the post. Entry must be on an official Cycling Time Trials Entry Form. Unless otherwise specified the fastest entrants at the distance being entered will be accepted — only times done during the past three seasons qualify. If you are under 18 years of age your parents must sign the Parental Consent Form.

Once your entry has been accepted for an Open time trial you will receive a start sheet a few days before the event giving details of the course, prizes and your starting time. After the race you will receive a result sheet showing where you finished in the event and confirming your official time.

Entry to Club events is different, usually being "entry on the line" on the day of the event. You will be required to sign a Club Entry Form and if under 18 must show the organiser a Parental Consent Form.

Courses and Watches

Courses are measured to a high degree of accuracy using special equipment and methods. Whilst marshals are appointed to assist riders to get round the course, ***it is your responsibility to make sure you know the route to follow in the race.***

The watches which timekeepers use must also meet high standards of accuracy, have certain features which generally prevent wrist watches (even digital ones) from being used and be certified by an approved watch tester. The timekeeper's word regarding your time is final, but if you have a query leave this until the event is over when the timekeeper will be able to check his/her figures.

Some useful web sites

Cycling Time Trials (the governing body for time trials in England and Wales) - www.ctt.org.uk - here you will find all the rules and regulations, downloads of all the necessary paperwork (including Open event entry forms and parental consent forms) plus lots of guidance notes and a very useful forum from where you can get a lot of information about all aspects of the sport.

South District Council (the administrators of time trialling for the central southern area of England – this includes Southdown Velo!) - www.southdc.org.uk – here you will find a list of all open events in the South District along with their start and result sheets, a list of all Club events in the South District, course details and much more.

Southdown Velo (your club's web site) - www.southdownvelo.org.uk – here you can find out all about the club, its members and sponsors. There are also links to our sponsors web sites.

Tips For Time Trialling

Originally written by Mike Marchant (Southdown Velo's Time Trial Secretary) in January 2008 and modified by him in December 2008

The club has gained a lot of new members over the last year or so, and some have not ridden a time trial (TT) before. So here is some of my tips for riding a time trial – good luck!

Who am I? My cycling CV

I hope this section doesn't come across as me showing-off but I suppose I should firstly justify why I think I am 'qualified' to write this article. Well, I was a latecomer to the sport; I took part in my first TT on 19th May 1981, one week after my 24th birthday (I was a middle-distance runner before that, but injury forced me out). I tried all branches of cycle racing but TT was the one I was best at, so I stuck with it. My problem though, was that I didn't have a coach – in fact there weren't any around at that time where I lived in Brighton (then Cowplain). So I decided to coach myself and in 1985, having taken a correspondence course run by The British Cycle Coaching Scheme (BCCS, now called The Association of British Cycle Coaches, ABCC), I became a Student Coach. Remember, this was in the days before 'sport science' – no heart rate monitors or power meters then! So in today's terms I would not be qualified anymore, a situation I am entirely happy with – so don't ask me to coach anyone now!

Later in 1985, whilst serving in the Royal Navy, I was appointed coach of the Royal Navy & Royal Marines Cycling Association and a couple of years later, the RN & RM Triathlon Association (just the cycling bits!). I coached until 1991 when mysteriously and involuntarily, I stopped – but that's another story! Since then I have taken a passing interest in 'sport science'.

So what about my performances? I would consider myself to have been, at my best, of a 'good club rider' standard, no more than that. I took part in National Championships at 25 miles (1986 – 29th, 1990 – 48th, 1991 – 73rd), 50 miles (1986 – 28th, 1990 – 31st, 1991 – 32nd) and 100 miles (1985 – 24th, 1990 – 11th). My best ever placing in the British Best All-rounder competition (BBAR) was 32nd in 1990; I was Sussex BAR in 1994 and won countless Inter-Services titles in TTs and on the track. I would count my 3 best ever TT performances as my 5th place in the Isle of Man Golden Jubilee Invitation 50 mile TT (a tough course and 2 weeks before the Commonwealth Games in Edinburgh – I beat some of those riders too!), my win in the Isle of Wight 100km TT in 1990 (a very hilly course) and my 11th place in the National Championships 100 in 1990 (it blew a gale in South Wales on that day). My lifetime PBs for a bike are: -

10 miles – 21.29 (1995)
25 miles – 54.38 (1995)
30 miles – 1.06.46 (1991)
50 miles – 1.54.33 (1994)
100 miles – 3.54.32 (1994)

So from that lot comes a fair bit of experience from which I have learned the following, and please remember, it is only my opinion! If you don't agree with me, that's fine.

My tips for time trialling...

I'm not going to harp on about training etc, you can read all about that in cycling magazines and many other books, either that or talk to a 'Sport Scientist'. This is about how to ride a TT race.

First of all, and merely as a passing but important comment, I have learnt (many times by mistake!) that there is no right or wrong in riding a TT – what works for one man (or woman) won't necessarily work for another and over the years, what worked for you then may not work for you now. So be prepared to constantly experiment and 'tweak' your training, nutrition, racing, position on the bike etc, but don't make drastic changes, just 'tweaks' over time; drastic changes can lead to injury, illness or other catastrophes.

The day before the race

A successful TT starts on the day before the event! Think about the following: -

1. **Check out your bike!** I remember Tim Stevens (top man!) riding the early season GS Stella hilly one year, came plummeting down Harting Hill only to discover that he had forgotten to tighten up the brakes cables on both brakes the night before. Luckily the only damage done was the rapid wearing out of a new set of shoe plates!
2. **Check out your race kitbag.** Nowadays I take with me everything I could possibly need in every type of race. I was caught out some years ago in the Easter Sunday Charlotteville CC 50. While we were warming up the weather was fine; as my start time approached the temperature dropped rapidly and I was dressed for a warmer day! It ended up snowing for the second half of the event and I froze – I mean really froze! I actually came 2nd but only because about 6 of us bothered or were stupid enough to finish! The bloke who won (Paul 'Porky' Bennett – Polytechnic CC – another top man!) stopped at the event HQ during the race and put on warm clothes – he beat me by 7 minutes!
3. **Check out the course.** You can usually find a course description on the CTT Internet web pages, www.ctt.org (see the relevant District Council page – for 'P' courses it is South DC, for 'G' courses it is London South DC, for 'H' courses it is West London DC). For an Open Event you will get a Start Sheet a few days beforehand, with course details on. If in doubt contact the event organiser or a club mate (probably me!). Don't rely on Race Marshals - they are hard to come by these days so you may find some junctions are not marshalled. Additionally, for early morning events, the organisers often put the race signs out the day before and it is not unknown for them to 'go missing' or be 'moved'! The rules of TT-ing puts the onus on the rider to know where to go, so if you go off-course it's your fault! If you are racing out of your locality then check out the course on a map; some riders write it out on a piece of paper and Selotape it to their 'bars (especially for longer or more complex events). Even if you know the roads check the specific event details in case anything (e.g. road works) has required a change.
4. **Whether to rest-up or not!** There are conflicting opinions about this. I find it useful to go out on the bike for about an hour at a 'brisk' pace in order to turn the legs over. Some say complete rest is the best option. Experiment and find out what works best for you. It isn't a good time to do (e.g.) heavy DIY or gardening etc, although circumstances (!) may dictate otherwise.
5. **Food and drink.** I personally don't put much credence in carbo-loading. If you are training regularly then, as part of that training, you should be eating a balanced diet, which will contain enough carbs for your needs. Eat and drink normally the day before but avoid alcohol!

The day of the race

For early morning events get up in plenty of time to allow you to do all you need to do and get to the event on time (see below). For afternoon events, ditto except for the getting up bit!

Pre-race meals! Again, an area with conflicting views. I would advise that you do not need to eat much (if anything) before a short distance TT (i.e. up to say, 30 miles). For early morning events I have a cup of tea when I get up and maybe sip on an energy drink before the race. Some people have a banana or energy bar but don't do so less than 1-hour before you start. For longer events have a light meal no less than 2½ hours before the event.

When to get there. For an Open Event you will know your start time in advance. I aim to arrive at an open event HQ no less than 1-hour before that time. This gives me plenty of time to get ready. If it is a Club Event you will only know what time the first man (or woman) is due off, and you will only know your start time once you have signed-on, so aim to arrive at a Club Event about 30 to 45 minutes before the first man is due off and take it from there.

How you use the time between arrival at the HQ and starting your race is up to you; most experienced TT-ists have their own habitual routine and you need to develop yours. I would strongly advise against getting into long conversations with others before the race – you can do that after. You should use your time productively and I have seen many people talking nervously to their mates about how bad they are going and the cold that they are just getting over etc, and before you know it they are talking themselves out of a good result.

My first job, on arrival at the race HQ, is to sign-on and collect my race number. I also check that there are no late course changes or start delays, e.g. due to fog. I then head for the loo! A TT-ist's toilet habits are a useful pointer to how they will perform in that race! If, on arrival at the HQ or even on the way there, you find that you are desperate for a 'number 2' then that is good! It is part of what is known as the 'fight or flight response', where your body is preparing itself for action! Some would say that if you have to go for several no. 2s before a race then there is no point in warming up - you are already prepared!

Next are bike, clothing and body – in that order. Get your bike out of the car, put it together and make any final checks (there shouldn't be many if you checked it the day before!). If you rode out to the event then move on to 'clothing' and 'body'. As for what to have with you on the bike during the race, I carry the following: -

- A spare (tub or tube), tyre levers (if needed) and a gas cartridge pump in a small pouch attached behind the saddle. Few people do this these days; I do because if I puncture, my race is over (unless it is a team event in which case get it fixed quick and finish!) and there is no point in ruining either a pair of shoe plates or a decent rim/wheel for the sake of a few extra ounces.
- A bottle of energy drink. I do so regardless of the race distance (yes – even for 10s!). I got caught out years ago on a very hot Summer Saturday afternoon in Wiltshire, during a sporting 30-mile event – never again!! How much you have in the bottle depends on race distance, weather etc. For a 10 I would normally have a couple of mouthfuls in the bottle just to ‘wet me whistle’ straight after I finish. For a 25/30 there would be enough for a couple of mouthfuls during the race (20 minutes intervals) and a couple after I finish. For a 50, a full bottle. Once you get to 100 mile or 12 hour TTs you will need a completely different feeding strategy (not covered here!). Interestingly I recently read about some wind tunnel research that said that having a standard shaped bottle on the down tube is more aerodynamically efficient than no bottle at all!! Oh, and remember, we are sponsored by SIS, so remember your obligations – one of their bottles on the bike advertises their products, even if it is empty!
- My heart rate monitor (HRM). The art of successful TT-ing is covering the course in the most efficient way possible. PACING IS ALL-IMPORTANT. Some people rely on ‘feel’ (we all did before ‘sport science’), some on HRMs and increasingly these days, power meters (PMs). I have nothing at all against PMs, in fact I think that they are an excellent tool but I have not progressed to one because my performance/ability these days doesn’t justify the cost. I never use a bike computer or any other device that tells me how fast (or slowly!) I am going. Speed doesn’t matter in a TT – it is your body’s output that counts (given the wind direction/speed and terrain of the course) and a speedometer can mess up your pacing strategy. Distance readout is useful (especially in longer events) but if you study the course the day before there is not usually a need to have this information on the bike.

Now get your race kit sorted out. You can do this in the HQ or in your car – I use my car so that I can spread out! Know what you are going to wear in the race. Weather dictates this and you may have to learn what is best for you over time. Brian Robinson (top-top professional in the 50s) once said that if the temperature is below 15°C then wear something over your knees. I’ve adopted this rule for some years now and it works – I even take a thermometer to events (sad git that I am!). On very hot days I wear the absolute minimum (that is either decent or legal), for cold days I use variously, overshoes, leggings, knee warmers, long fingered gloves, arm warmers, an extra base layer, chest protector, race cape, neck warmer and/or skull cap. If you wear a skinsuit you might have to find somewhere to carry (e.g.) car keys etc. I currently wear one of those light cotton travel pouches under my skin suit in which I carry a laminated card (with info. about me, blood type, next of kin etc), my inhaler (I’m a lifelong asthmatic) and my car key. Some people safety pin stuff to the inside of their skin suit, others leave their stuff in the HQ.

Race number. Don’t forget to pin your number on. The body number should be placed just above your bum where the finish timekeeper can see it, not halfway up your back like a runner! If you are given an arm number as well, this should go on your left shoulder. Its purpose is to help the finish timekeeper know who you are as you approach (this is useful for him/her if riders pass the finish more than once during the race, i.e. a multiple circuit race). The arm number should face forwards and to the left so it can be seen by the timekeeper (or Race Marshal) by the side of the road. You will sometimes see riders with it on the left side of their body and behind the shoulder. This is probably because they have seen it worn like that on the TV by professionals - they do so where photo-finish equipment is used at race finishes – that doesn’t happen in TTs!

Now to prepare your body. Hopefully you have emptied both your bladder and bowel by now. There may be certain ‘products’ that you might want to apply to your body, e.g. cream to the ‘undercarriage’. In fact if you are using shorts with a real chamois insert then you must apply a proprietary chamois cream to the insert. However, most shorts these days have synthetic inserts which need no such maintenance. If you need to apply a lubricant to your skin, nappy creams work well.

Many people spend a lot of time (and money) rubbing creams and oils into their legs before a race (one good reason for shaving them!). I’ve used all sorts over the years and to be honest I think that the time spent applying them would be more usefully spent stretching and/or warming up on the bike. Hot balms, in my opinion, probably draw blood away from the muscles to cool the skin heated by the cream – if it is that cold, wear leggings! But that said, each to their own; someone once said that it is the smell of the embrocation that gets them thinking positively about the race – fair enough, if it works, do it, but make sure you do your undercarriage first!

Stretching? Not a lot needed here unless you have had a long car journey to the event. Don’t do too much though – you don’t want to pull anything out of place! Stretching is more important as part of a regular daily training routine.

Warming up? Different schools of thought here. Some say don’t do any, and with what I said earlier about the ‘fight or flight response’, there could be some credence in that. Personally though, I think that an on-bike warm-up is essential, if

only to get your mind into race mode. You can either do it on a turbo-trainer or out on the road – I don't favour one or the other. On the turbo you can forget about traffic and think the race through; the downside of the turbo is on hot days when you can get uncomfortably sweaty before the race. If you warm-up on the road you can use it to check out where the start/finish are; you can also check the start timekeeper's watch against yours so you know you won't be late. It is also an opportunity to get an accurate check on the weather/wind conditions, which may be of benefit in choosing what to wear during the race. If you do warm-up on the road I suggest using an old pair of wheels rather than your race wheels, in case you puncture. I generally find that 20-30 minutes warming-up is enough – build up steadily in that time and finish with a couple of sub-race pace bursts. Don't forget to leave enough time to get into your race clothes, change wheels, final loo visit etc, and get to the start on time.

Starting the race. As a timekeeper myself, I am always fascinated with people who start fiddling with their watches/HRM/PM etc, when I have just given them 20 or even 10 seconds to go. As a rider I start my watch when my minuteman goes (he's the one, starting one minute in front of me). If he is absent I politely ask the timekeeper to count down to his time anyway. This way, if I do any time checks on myself during the race (e.g. at halfway), I subtract 1 minute from the time on my watch to give me my actual time.

When you approach the timekeeper you should be in the gear in which you want to start. Choose a gear, which is appropriate for an uphill, downhill, into-the-wind etc, start; I usually use something like 53x17 or 19. When the timekeeper has done the 5-4-3-2-1-go, don't sprint away from the line! This is a time trial, which is all about PACING! You need to start steady and gradually increase your speed over the first mile until you reach your required level of output (watch Brad Wiggins, Fabian Cancellara, Dave Millar etc, start).

Pacing. This is probably the hardest bit of all and it gets harder, the longer the race is, and it is something that you will learn over time. In theory, you need to expend your last drop of effort and energy about 10 metres from the finish line. In practice that never happens! If you use an HRM or PM then you need to know the 'numbers' you are looking for, for that race distance. The other important factor is cadence (your legs' rpm!). Here are my figures as an example (sorry, but they are the only ones I have got that I can use!).

I am 51 years old and have a measured maximum HR of 190 bpm (my resting pulse is about 48 bpm). I can ride a 10-mile TT at about 92-95% HR max. (i.e. 175-180 bpm). For a 25 mile TT I will drop that slightly to 90-92% HR max. (i.e. 171-175 bpm). For a 50 mile TT I would drop that further still to about 87-90% HR max. (i.e. 166-171). I like to think about these figures as being 'negotiable', in other words if I am feeling good with a few miles to go I will 'put the hammer down' regardless of the race distance. Conversely, if I don't feel too good after the first couple of miles, I may drop the pace and then see how it goes. Even with 'sport science' there is still a lot of 'feel' involved.

Regarding cadence, I have short thighs compared to the rest of my body (I'm 5' 9")! So, I have found over the years that I go better by spinning smaller gears – about 95 rpm. If you have longer legs or you are taller, you could probably use a slower cadence. I don't use a cadence computer; strangely enough I use my shoulders as a gauge – once I find myself having to move my upper body to get the gear round, then I know I must change down, and that applies whether I am going uphill, downhill or into a headwind or with a tailwind (this is why a speedometer can mislead you!).

After the finish. Hopefully you have just done a PB! No? Well, never mind there's always next time, so long as you enjoyed it. If you are racing the next day it would be a good idea to 'warm-down' for a few miles (put on a track suit top and spin a small gear, HR below 70% HR max.). Get changed first, then put your bike away – in that order (noting any problems that need sorting for next time!). Then you can go about consuming vast quantities of tea/coffee (beer/wine?!) and cake/biscuits/sandwiches etc, and talking about the 'what-ifs' and 'if-onlys' of the race.

See you up the road.....Mike.