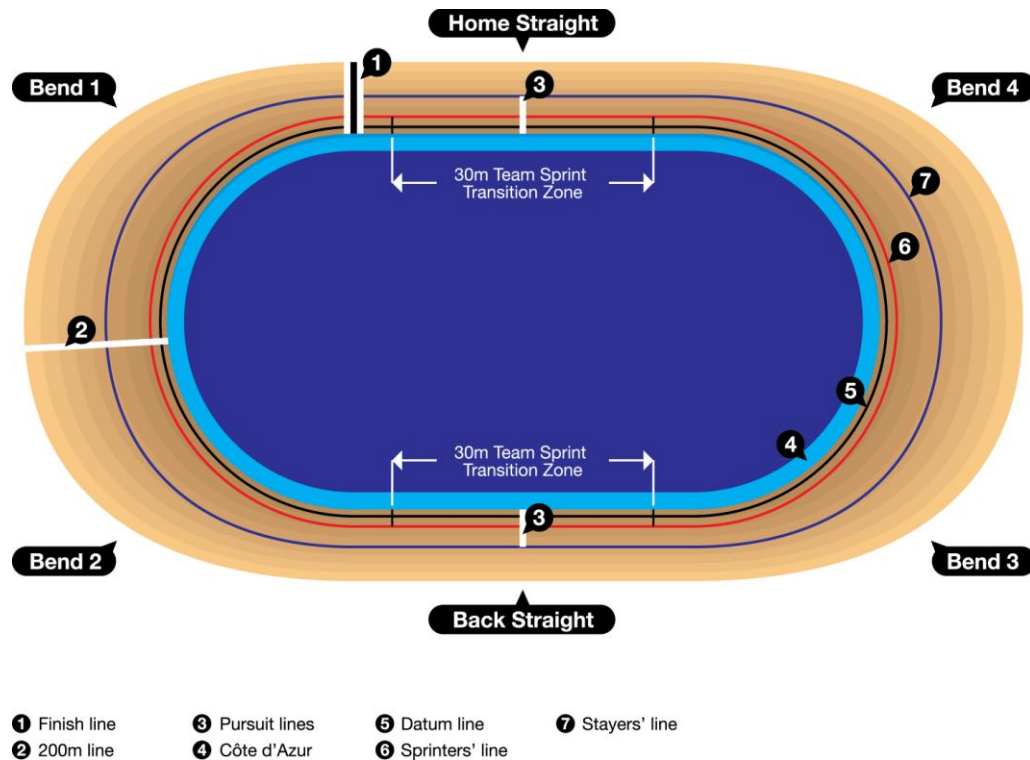


About Track Racing



Track Racing has grown in popularity following the success of the GB Team in the Olympics and World Championships. In this introduction to the sport, we look at how it works, and the various different kinds of races.



TRACKS

Track racing takes place on short specially built tracks consisting of two tight, banked corners joined by two short straights. Tracks range hugely in length outdoor tracks usually being longer and with shallower bankings but Olympic and World Championship Track racing is generally held on indoor 250m wooden tracks. Bends 1& 3, and 2 & 4 are identical in angle and transition and are important to riders in coach led training sessions on the track. Many outdoor tracks are concrete or tarmac surfaced. **Bikes:** Track bikes are relatively simple, lacking the gears and brakes of their Road cousins. With bikes having a fixed wheel (forcing you to pedal continuously) the rider controls speed through pressure applied to the pedals. Bikes fall into two broad categories:

Upright bikes with conventional dropped handlebars, traditional spoked or carbon spoked wheels. These bikes are used for bunch races, Keirin and Match Sprint.

Low-profile bikes, with extended "triathlon" style bars, allowing the rider to adopt a more aerodynamic position. Wheels are often four-spoked carbon or carbon disc. Handling and manoeuvrability are sacrificed for aerodynamic efficiency. These bikes are used for Pursuit races and Kilo and 500m Time Trial.

TRACK RACING - A GUIDE TO THE MAIN EVENTS

Track events can be split into two main types - Sprint events, which generally last for less than two minutes and Endurance events which can be up to 40km in length.

SPRINT EVENTS

Kilometre Time Trial (men) & 500m Time Trial (women): A time trial against the watch, ridden individually from a standing start. No qualifying rounds means this a high-pressure, one-chance event.

Team Sprint: Teams of three men or two women ride three laps (m) or 2 laps (w) of the track (equating to 750m (m) 500m (w) on Olympic standard 250m long Tracks). After the first lap, the first rider peels off and plays no further part in the race. After the second lap the second rider also pulls off, leaving the third rider to complete the event and record the team's time. Technically demanding, the aim is for the first two riders to shield and slipstream the third rider for two laps (slipstreaming can save up to 30% of energy) leaving them relatively fresh for the last lap. Usually ridden two teams at a time (starting opposite sides of the

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track) with a qualifying round, with the four fastest winning teams going through to the finals for gold/silver and bronze. The Women's version involves teams of two, riding two laps in total.

Keirin: The Keirin (Japanese for "fight") is a race in which riders sprint for the line after completing a series of laps behind a single motorbike pacer (Derny). The pacer gradually builds up speed, with riders jockeying for position behind (riders must not pass the "Derny" until it pulls off). The Derny pulls onto the track infield with 2 and a half laps to go and from then on it's a straight race to the line. Tactical and often very physical, it's a great spectator event. Usually ridden with heats, repechage and major (medals) and minor placings finals.

Match Sprint: Simple head-to-head sprinting between two riders over three laps of the track. At the highest level there is usually a qualifying 200m flying start time trial to organise the seeding. From then on there are a series of two-rider knockout rounds leading to quarter-finals, semis and the final. Earlier rounds often feature single heats with a repechage element offering a way back in for defeated riders. The quarters, semis and finals are usually ridden on a best of three heats basis, with no way back for defeated riders.

ENDURANCE EVENTS

Individual Pursuit: The ultimate head-to-head endurance race. Riders begin from a standing start in pairs on opposite sides of the Track and literally "pursue" each other for 4000 meters (3000 meters for women). There is usually a qualifying round from which the fastest four riders progress: the two fastest contest the gold/silver medals and the third and fourth fastest the bronze medal. In the finals, the first rider to complete 4000m wins, unless one rider is caught by the other, at which point the race is over.

Team Pursuit: Team version of the individual pursuit. Men race in teams of four over 4000m and women in teams of three over 3000m. The major difference to the individual version is that the riders share the workload, with the lead rider staying at the front for only a lap or so before swinging up the track (right) and re-joining the three or four rider line at the back. A technical event, team-mates often ride only centimetres apart to maximise slipstreaming effects. In the men's event, times are taken on the third rider of the team to cross the line: the slowest rider in a team often sacrifices himself in later stages of the event and pulls up the track to let his team-mates complete the race without him.

Points Race: A bunch race (20-30 riders) competing over 20, 30 or 40km. Riders aim to gain points, with the highest scoring rider winning the event. Points can be scored at "Intermediate" sprints, often every 10, 20 or 25 laps (typically 5, 3, 2 & 1 to the first four over the line). Large numbers of bonus points (typically 20) can also be scored by lapping the field. A very tactical event, with alliances being formed and broken and dramatic attacks being chased down by the field. Requires speed, stamina, the ability to sprint quickly to grab points and a cool head.

Madison: Effectively a Points Race for teams of two (though the points scoring works slightly differently - see below). Only one rider per pairing is ever actually racing. The other rider circles the track high up the banking until he or she is caught by his or her team-mate at which point they swoops down and, after a hand sling (difficult to describe, but basically the rider who is "in" takes the hand of their team-mate and transfers his momentum to him through a mixed handshake and slinging motion) takes over the racing for the pair. Highly technical, a challenge to watch, but very exciting and almost balletic at times. Again, the winner is the team with the most points - however, unlike Points Races, laps gained over the field do not produce bonus points - instead laps gained actually have priority over points scored. So if only one team laps the field, they win irrespective of the number of points scored. And if several teams lap the field, they then are ranked according to points scored. This puts extra emphasis on taking laps, which subtly influences tactics used.

Scratch Race: A simple bunch race, usually held over 10, 15, 20 or 25 km with the first over the line the winner. Tactical moves include lapping the field. Riders with endurance but poor sprinting abilities will favour this tactic, whilst riders with a powerful sprint will favour saving their efforts to the very end.

Omnium: A discipline where riders compete over a series of races to find the best all-round/most consistent rider. Points are awarded so that the winner of each individual event scores one point, second scores two, third scores three, etc. The rider with the lowest aggregate score at the end of the competition is the winner. A relatively new event at World Championship level, it makes its debut at the Olympics in London 2012. The event is typically made up of the following: 200m Time Trial; Scratch Race; Individual Pursuit; Points Race; Kilo (or 500m Time Trial in the women's event). The event is normally contested over a single day.

This text was provided by British Cycling. Visit their website for further track information www.britishcycling.org.uk