

South Coast Cycling Edwardstown Track Cycling General Information 2019 -2020



Club email secretary@southcoastcycling.org.au
Web page southcoastcycling.org.au



SCC Track Cycling Sponsors



A big thank you to all the SCC Edwardstown Track Cycling sponsors and volunteers,
without whose support the track cycling would not be possible.

Welcome to the South Coast Cycling Club

The South Coast Cycling club has been around since 1978 and was first established as Noarlunga & South Coast Cycling club. We organise track cycling and road cycling events, training track sessions, bunch rides, workshops and social activities.

South Coast Cycling Club Contacts

South Coast Cycling club website: southcoastcycling.org.au is regularly updated and includes information about events, racing information, results and photos. Email: email@southcoastcycling.org.au SCC Facebook or Twitter: 'South Coast CC' @SthCoastCycling

South Coast Cycling Club Committee

The South Coast Cycling Club is controlled by cycling's governing bodies in Cycling SA and Cycling Australia. Under our constitution the office bearers of the club (President, Vice-president, Secretary and Treasurer) are elected by the Members at the annual general meeting. These office bearers together with the elected committees, represent the Members in running and managing the club.

South Coast Cycling have an excellent, hard working committee and group of volunteers, open to new ideas and committed to see the club grow and develop. Committee meetings are held on the third Tuesday each month at the Club Rooms (Edwardstown Club) and all SCC members who are not on the committee are invited to come along and contribute. For meeting date/time send an email to the club.

South Coast Cycling Club 2019-2020 - Summer Track Program

Edwardstown Velodrome – East Tce Sth Plympton

October 4 – Come'n try, Buy, Swap and Sell

October 11, 18, 25

November 1, 8, 15, 22, 29

December 6, 13, 20

December 20 Xmas Cup on Wheels** Dress up your bike!**

Saturday 4 & Sunday 5 January SCC Mt Gambier Carnival ****

January 10, 17, 31

Monday January 27 ** Australia Day Carnival **

February 7, 14, 21, 28

March 6, 13, 20, 27

Monday March 9 ** Interclub Event ** Club v Club

“We can get you started”

“Get Fit, Get Competitive, Get to Edwardstown

Track Racing @ EDWARDSTOWN

Edwardstown Velodrome Track Information:

South Coast Cycling club conducts track events – on Friday nights at the Edwardstown velodrome. The cycling is suitable for all ages and abilities with the grades and events programmed according to abilities. The events are conducted in a friendly and welcoming atmosphere. There are a variety of events catering for sprinters to endurance riders and individual and team events everything in between. Christmas - Novelty Races on the grass.

FRIDAY NIGHT PROGRAM

The Edwardstown Friday night program can be found on the club web page.

- Track opens: 5.30pm
- Sign on /Nomination opens 5.30 -6pm
- Session /Racing starts: 6.15 pm
- Session /Racing ends: by 8pm, or when the light fades.

Riders must sign on prior to warming up and show their current CA licence and their helmet. All riders need to complete an emergency contact form the first night they compete.

Warm Up:

Riders position on the track during warm up – Faster riders down the bottom of the track and slow riders at the top of the track this ensures the safe entry and exit of riders or riders.

Event Grades:

At Edwardstown track SCC grades the riders by ability, not age, therefore their gearing will be different. Our primary object is to give the riders the opportunity to enjoy their track cycling events and therefore continue to rider and improve at their pace.

Racing is graded, based on ability. There are usually 3 - 4 grades of seniors and 2 – 3 grades of juniors, depending on numbers, with 3 to 4 races for each grade.

Lining up on the Track:

Riders to line up on the fence closest to the football club rooms. The usual format of mass start graded races is that 2 grades are called up at the same time.

Highest grades lines up at the front and will be sent off first.

On the Track:

There are usually two grades racing on the track at the same time therefore riders must stay aware of their position on the track and other riders around themselves. In the case of a grade being caught and passed by another grade on the track all riders need to hold their line.

After the race finish riders must continue to hold their line until it is safe to move to the top of the track. Riders must exit the track once they come around to the front straight after the finish of their race.

Between Events:

In between racing events it is best to use the time to meet other riders, have a chat and get helpful advice, as well as watch the other events. This helps with learning from other peoples' tactics and also to cheer other grades on.

Parking your bike at Edwardstown track; lean your bike on the outside of the fence. Do not hook your handlebars over the fence as this creates a dangerous situation for those on the track. Try not to lean your bike on others' as they might have trouble getting theirs out when they need to.

Never cross the track while a race is in progress. Wait until the race has ended before crossing the track. Always look before crossing the track, as slower riders may still be finishing a race or trying to access the gate to leave the track.

Keep an ear out for the 'Clark of Course' (Commissaire calling the events up). Track races tend to run on a tight schedule, so try to keep an eye on where the program is at so you are ready to ride when called up. If you need to leave the track before the end of the event, make sure you tell the Clark of Course so they aren't calling out for you when you're not there, wasting everyone else's time.

Race Program:

The race program varies from week to week and the events will be determined by the number of riders in each grade, race conditions and is set by the event race programmer.

Safety:

- Unless otherwise noted, all Cycling Australia rules apply during all races
- The safety of yourself and others comes first at all times
- Helmet must be worn at all times when riding and must be securely fastened
- Do not use offensive language
- Both hands should be on the handlebars at all times
- Be responsible for the safety of the bicycle you are riding ensuring everything is correctly tightened and tyres are in good order and correctly inflated.
- Bring enough water/ fluid for yourself
- Always ride a straight line in all sprints
- It is important take extreme care when crossing the track to the infield
- Shoulders must be covered at all times when riding on the track
- Always be observant and considerate of others using the track
- Tubular tyres must be securely glued to rims.

Track Details: Distance - 485m, handicap marks marked every 5m

Toilets: Toilets located in the South Coast club rooms

Results: www.southcoastcycling.org.au & published in the Sunday Mail

We need volunteers to spread the load and you do not need to be a Cycling Australia member to help out, anyone can chip in to give a hand. ***Don't be shy – if you can help on and off the track – with jobs such as judging, lap scoring, bbq cook –please see Catherine or Ken if you are able to assist.***

**Non Smoking environment**

Edwardstown Velodrome track cycling events conducted in a smoke free environment. South Coast Cycling club follows the guidelines provided by The SA Office for Environment and Health.

SCC TRACK TRAINING

MONDAY NIGHTS: Juniors 5.00pm – 6.30pm

- Novice riders that are not members of CA
- CA licensed, Kidz, Juniors U13- U17 riders
- Loan bike \$5 for non SCC members

COST: \$5 per session

MONDAY NIGHTS: Seniors Novice Session 6.30-7.30pm

Each fortnight starting 14 October

- Loan bike \$5 for non SCC members

COST: \$5 per session

WEDNESDAY NIGHTS: Seniors 6.00pm – 7.30 pm

- CA licensed, U19 & Seniors
- Loan bike \$5 for non SCC members
- **COST: \$5 per session**

Club Bikes:

South Coast Cycling Club has a number of track bikes for use by new riders to allow time for them to make a decision to continue in the sport before actually acquiring a bike of their own.

There is a various range of bike sizes for use and are lent out on a first in best dressed basis. You will need to be at the track prior at 5.30pm to use a loan club bike unless prior arrangements have been made.

If you have cycling shoes you will need to bring your pedals to attach to the club bikes. If you do not have clip-in pedals, wear sneakers and the club has flat pedals for the bikes.

SCC will endeavour to have a volunteer assist with bike setup if you need help.

Junior Gear Restriction:

Gear restrictions apply to all junior cyclists in events conducted under Cycling Australia regulations on the road and track. It is the parent's responsibility to ensure that their children's bikes apply with this ruling.

Gear restrictions apply to all junior cyclists in events conducted under Cycling Australia regulations on the road and track.

The restrictions referred to is the distance one revolution of the crank arm will propel the bicycle, this is known as the 'roll out'.

The gear restrictions apply to each of the following member categories:

- Junior Under 19 = 7.93 metres
- Junior Under 17 = 7.00 metres
- Junior Under 15 = 6.00 metres
- Junior Under 13 = 5.50 metres
- Junior Under 11 = 5.50 metres

Please note that all competitors are required to satisfy a roll out for all junior events.

Equipment:

Track racing requires the use of a specific track bike. A track bike has just one gear and the pedalling is fixed (no free – wheeling) by using your leg speed to smoothly control the bike speed with great accuracy. Placing pressure on the pedals backwards reduces speed as no handbrakes are permitted on the bike.

- Gear selection depends on age, ability and type of events.
- An approve helmet is compulsory – refer to helmet regulation
- Gloves – long-fingered gloves highly recommended for warm up and racing.
- 15mm spanner – needed for doing up your pedals (most people) and for ensuring the wheels are tight. Get one that is round at one end (so that it puts even pressure on the wheel nuts) and open at the other.
- Fixed seating at the track is limited and in need of repair, therefore you may wish to bring along your own portable seating.
- Sunscreen – it is HOT in summer at the track, and you will be in full sun. Be sun smart.
- Drink – water is available to purchase at the track, but it is recommended that you bring your own.
- As Edwardstown is an outdoor velodrome some evenings it can get quite cold so make sure you bring appropriate attire to keep comfortable in between races.

Cycling undershirts:

It is recommended that you wear a undershirt “base “ layer under your cycling jersey /skinshirt at all times when warming up and racing for your protection and comfort.



A base layer assists in removing sweat from the surface of the skin and placing it on the outside of the undergarment. Wearing a base layer can save your skin from gravel rash. The theory is that, if you fall off your bike and slide or roll, your jersey will catch the asphalt, but your undershirt will keep sliding within the jersey. And sliding on an undershirt feels marginally better than sliding on bare skin.

On the track:

Pole Line: the white ‘measuring’ line at the bottom of the track. The length of the very left hand edge of this line is the length of the track.

Sprinters Line: the white line just up from the Pole Line, it forms the ‘Sprinters Lane’ or ‘pole lane’ which is the space between the two white lines. During a sprint, only one rider can occupy the Sprinters Lane, you cannot undertake a rider who is below the red line or overtake them and try to squeeze them down the track.

Stayers Line: is the blue line about 1/2 way up the track. This is a traditional bike racing term drawn from the (now-extinct at World level) Stayer's or Motor paced event.

The area between the white line (Pole line) and the stayer's line is NO MAN'S LAND. Use it to cross into or out of the Sprinters Lane. Do not ride or do efforts here--it is too confusing and dangerous as the riders in the pole do not know whether a No Man's Land rider is going to drop down the track on them. This does not include bunch racing--it only applies to training and warm-up.

The big white band with black line through the middle perpendicular to the bike traffic is the Start/Finish Line (in the home straight). The other white perpendicular line is the 200m line. The 200m line is the starting point for the 200m time trial, which is the qualifying and seeding event for the match sprints.

The Pursuit Lines: are the shorter perpendicular lines opposite each other 1/2 way up the home straight and the back straight. These are lines from which time trials are measured.

Marks around the top of the track indicate the distance in metres, in front of the finishing line and are used for handicap racing, the 'Mark' you are given is how much head-start you have on 'scratch' (Zero)

EDWARDSTOWN TRACK RACING EVENTS

Types of races:

There are many types of track races and many variations of those. Below is a description of some of the more common races.

Scratch Race

The race goes for a set number of laps. All riders start at the same time, as a group. It is usually a longer race and provides a good opportunity for the endurance riders to hurt the sprinters. The first rider over the finish line on the final lap wins. Simple!

At Edwardstown there are often two grades of riders on the track at the one time therefore riders are required to stay up the top of the track once they have finished their race.

Handicap

A handicap race has riders start at various points around the track based on ability. Each rider is given a certain head start over other riders, specified as the distance from the start line. For example '150m' means that you start 150 metres in front of the start line.

The marks are in 5 metre increments and are printed on the track close to the velodrome outer fence. The race goes for a set number of laps.

The faster riders are known as 'back markers' and will often work together to try and catch the 'front markers' before the race finishes. Handicap races go for a set number of laps and give everyone a chance of winning with the first rider over the finish line on the final lap wins.

*At Edwardstown **Friday night racing** riders take up their handicap mark position and start from holding on to the fence with one hand on pushing off when the whistle/air horn is blown.*

Match sprint (Derby)

The match sprint involves 2 or sometimes 3 or 4 riders vying for honors over a short distance, usually only two or three laps. This can be very exciting and tactical as each rider tries to gain the best track position before unleashing all their power to get past on the line. Riders often play a tactical game of "cat and mouse" over the first part of the event in an attempt to keep the actual sprint down to 200 – 300 metres. *At Edwardstown velodrome the distance is determined by the officials usually 2 laps.*

Motor Pace

Motor Paced is an endurance track race that goes for a set number of laps. All riders start at the same time, as a group and are paced by a motorcyclists who shelter them from the wind. Riders take turn behind the pacer until it leaves the track when the riders contest the final sprint.

At Edwardstown velodrome riders must only take ½ lap turn behind the scooter and the rider on the front with 2 laps to go may stay on the front. Scooter will leave the track with one lap to go.

Elimination

The Elimination is like a scratch race, in that it is a mass start race except that on each lap the last rider across the line is eliminated. Sometimes the event is called miss – and – out. This is a race that can suit the sprinters, but only if the enduros don't push the pace too much and split the field. The field diminishes rapidly until there are only a few riders left to contest the final sprint. This is always an exciting event where the crowd like to get involved.

At Edwardstown riders are eliminated every lap after the initial laps are completed and a whistle is blown to indicate the first elimination lap.

Team sprint

The team sprint involves 2 or 3 riders aiming to post the best time over a short distance. Each rider peels off after their allotted distance and leaves the last rider to finish the race alone and record a time.

At Edwardstown Velodrome racing riders do a ½ lap turn before pulling up and the number of riders per team may differ due to nominations.

Keirin

Is a track cycling event in which a small group of riders (6 – 8) sprint for victory after completing a number of laps jockeying for position behind a motor pacer at increasing speed. In the first few laps, the riders are paced by a motorized vehicle called a derny, which leave the track a few laps before the end at a speed of about 50 km/h. The first to finish the race is the winner.

At Edwardstown velodrome the race distance is 4 laps- Max 8 cyclists behind motor scooter which pulls off up the track with 1 lap to go for the final sprint.

General Riding Etiquette:

Cycling Etiquette boils down to SAFETY, your safety and the safety of the people riding around you. Its not always obvious why one thing is safer or less safe. Over a few hundred years cyclists have worked every possible angle on how to avoid skin being left on the ground;

- The trick to riding track safely is to **ride predictably**. There are a few simple rules to follow and signals to make others understand your intention. Confusion is the track rider's enemy and the cause of most crashes! Understand what the lines mean (read above) before riding the track.
 - The faster rider is responsible for passing safely. Slow riders are responsible for riding straight allowing faster riders to pass predictably. NEVER try to get out of the way of a faster rider. Maintain a straight line, parallel to the track's lines.
 - At Edwardstown velodrome, slow riders must ride above the Stayers Line and faster riders ride on the pole line.
 - When moving up or down the track turn your head in the direction you want to move and glance back as you gradually move up or down the track paying attention to where you're going and any over-taking traffic at the same time. If you are swinging off the front of a bunch, flick your right elbow out before swinging up so people following you are aware you're about to pulling up the track, and as you swing up, maintain the pressure on the pedals, otherwise the rider behind might clip your rear wheel.
 - As you approach a slower rider with their head turned in the direction you want to pass, clearly communicate with the command "hold your line" in order to make the slower rider keep from moving into your passing line.
 - If you hear "hold your line" keep riding straight (parallel to the pole line.) If you are manoeuvring up or down and hear "hold your line" immediately correct your line so you're riding straight (parallel to the painted lines.)
- Ride the track as if you are directly responsible for the safety of all other riders on the track, pay attention to what other riders are doing and give them the right of way.
- If you think you are going to run up the back of the rider in front, ride to their right, up the track slightly. This washes off your speed and is the direction those behind you will expect you to overtake someone. As a bunch slows, expect the whole bunch to fan out up the track.
 - Do your fair share of work at the front. If you are struggling and can't take a turn, stay at the back of the bunch rather than disrupt the rhythm of those who are working.
 - If you are not confident of your bike handling ability, and the pace is too fast for you to take a turn at or near the front, put your pride away and learn how to sit on the back of the bunch. When the lead rider comes back after doing his or her turn, tell him or her to cut in, dropping back yourself to allow room.
 - Do not panic if you brush shoulders, hands or bars with another rider. Try to stay relaxed in your upper body to absorb any bumps. This is a part of cycle riding and racing in close bunches and is quite safe provided riders do not panic or change direction abruptly.

Respect the direction and advice of senior riders. While it might difficult to hear wise and sometimes blunt advice, that guy yelling at you has probably has enough race wins, miles under his legs, broken bones and falls that entitles him to be heard by you.

Be spatially aware. Everything you do has a knock-on effect on everyone behind and beside you.

Track racing rules

3.9 TRACK RACING RULES

3.9.01 Deleted 01/06/2012 refer Reg 3.2.01

3.9.02 Axles and Handlebars

1. Wing nuts, excessive long axles or any attachment likely to endanger the safety of riders shall not be fitted to any competition machine.

2. Handlebar ends must be plugged.

3.9.03 Riders may carry no object on them or their bicycle that could drop onto the track. They may not bear or use on the track any music or radio communication system. Devices such as speedometers or Power meters should be securely fitted and out of sight of the rider or made unreadable by the covering of the display.

3.9.04 A rider overtaking another rider must pass on the outside, unless the overtaken rider is manifestly riding wide. The overtaking rider must be a clear machine length in front before taking ground.

3.9.05 A rider who rides or acts in a manner considered to be dangerous to other competitors or the public, will be penalised.

3.9.06 A rider who pushes or pulls another rider may be penalised.

3.9.07 A recognised mishap shall include a puncture, a fall, breaking of a frame and/or any of its accessories, but it shall not include insufficient tightening of a wheel, a chain, handlebars, saddle, toe straps, or any other accessory. The Chief Commissaire will decide what constitutes a recognised mishap.

3.9.08 Competitors may take a spare pair of wheels and necessary tools with them to the starting line, in case of mechanical mishap. For championship events the above is compulsory.

3.9.09 At the start of a race, the front wheel shall be placed on the starting line as directed by the starting official. The rider's attendant must not overlap the starting line.

3.9.10 Generally the start of an event shall be effected by a single pistol shot or whistle blast. A false start or stoppage of an event shall be signalled by a double pistol shot or whistle blast. A rider who causes a false start may be penalised.

3.9.11 When a competitor's machine is damaged or has suffered a mechanical mishap, the rider may run with or carry the machine but must not interfere with other competitors.

3.9.12 On the commencement of the sprint or the final 200m, all riders should maintain a straight course with the measuring line. The Judge Referee will decide whether any infringement of this rule has affected the true and proper result.

3.9.13 A rider is considered to be off the racing surface of the track when he moves under the inner edge (onto the blue band). A rider who moves onto the blue band of the track in order to gain an advantage may be penalised.

3.9.14 In all track events where standard or "classic" style handlebars are used, riders must compete with their hands "on the drops". The only exception shall be in the Elite Madison. (01/04/2013)

3.9.15 Prior to competition and during all warm up periods an accredited commissaire must be in attendance. His duties will be to control and supervise all safety requirements.

3.9.16 All competition and warm up periods must have in attendance a qualified and equipped first aid officer.

3.9.17 Any offence not specifically penalised and any unsporting behaviour shall be punished by a warning indicated by a yellow flag, or by disqualification from the race indicated by a red flag according to the gravity of the fault, notwithstanding the fine provided for in the scale of penalties. A rider receives only one warning before disqualification. On each occasion the Commissaire will indicate at the same time the race number of the rider concerned. The warning and disqualification are relative to the one specific competition event only.

3.9.18 In the case of collusion between riders, the commissaires may disqualify the riders concerned. (01/04/2013)

3.9.19 The Chief Commissaire may at his discretion withdraw a rider from further competition, if in the opinion of the Chief Commissaire that rider or their equipment is not in a fit state to continue in the competition.

3.9.20 The wearing of dark tinted eye glasses by competitors shall not be permitted on velodromes during competition and training under the following conditions:

- ☒ indoor velodromes, at all times
- ☒ outdoor velodromes, after sunset or when velodromes lights are on

This regulation does not effect the wearing of eye glasses for protective reasons. i.e. with clear or coloured light enhancing lenses.

TRACK TRAINING FOR SENIORS

MONDAY NIGHTS

Edwardstown Velodrome

Come and enjoy the fun of riding in a safe and controlled environment whilst learning the skills of track riding.

This session is for

- **Novice riders that are not members of CA**
- **CA licensed, Kidz, Junior U13, U15 and U17 riders**

Under instruction of qualified coach/es running planned training sessions. These sessions will endeavour to cater for the development of novice riders including bike handling and racing skills. The sessions are for junior riders that want to learn about bike safety and racing rules and etiquette and are primarily for riders new to track cycling and young juniors.

SCC has a number track bikes available for loan. Participants will need to be at the track prior at 5.00pm to arrange the use of a loan bike.

Participants can bring their own pedals if they have cycling specific shoes otherwise participants will need to sneakers or enclosed shoes as the club has flat pedals for these bikes.

An Australian standard helmet is compulsory.

All participants must register with the track volunteer or coach by filling out the track registration and sign on sheet and book and pay the session fee before getting started.

COST: \$5 per session

TRACK TRAINING FOR SENIORS

WEDNESDAY NIGHTS

Edwardstown Velodrome

6.00pm – 7.30pm (warm up 5.30- 6pm)

Come and enjoy the fun of riding in a safe and controlled environment whilst learning the skills of track riding.

This session is for the following members of Cycling Australia;

- **Senior experienced track riders**
- **Junior riders invited by the coach**

SCC has a number track bikes available for loan. Participants will need to be at the track prior to 5.30pm to arrange the use of a loan bike. Participants can bring their own pedals if they have cycling specific shoes otherwise participants will need to sneakers or enclosed shoes as the club has flat pedals for these bikes.

Must have An Australian standard helmet and Current Cycling Australia licence.

All participants must register with the track volunteer/coach and fill out the track registration /sign on sheet and pay the session fee before getting started. COST: \$5 per session

For more information, or visit our webpage. southcoastcycling.org.au/

BIKE TALK

Cycling jargon can be confusing for the new comer. Here are a few words and terms that might be used by other cyclists around you.

Attack: An aggressive acceleration (jump) to cycle away from another rider or group of riders.

Bidon: A commonly used French word meaning water bottle.

Blocking: A legal method of impeding the progress of the riders in a bunch in an effort to allow team mates to break-away.

Break / Break-away: A rider or group of riders that are a distance from the main group / bunch of riders in a race.

Bridge / Bridge a Gap: Getting across to a rider or number of riders ahead of you.

Bunch: A group of 6 or more cyclists. The main bunch in a race is often referred to as the peloton or pack.

Bunny Hop: To lift both front and rear wheels at the same time to get the bike airborne, to avoid or get over an obstacle.

Cadence: The rate of pedalling. Pedal revolutions per minute (rpm).

Clincher Tyres: Conventional tyres with inner tube. Also called high pressure tyres.

Dab: A term to describe the touch of the ground with the foot while riding a difficult mountain bike trail.

Dropped: Describes rider(s) that have failed to keep pace with the group/bunch they were riding with.

Drops: The curved section on Road and Track bike handlebars where the rider grips for the best racing position.

Fire Trail: Usually a rough but wide trail intended for use by vehicles in the advent of a fire in the bush, forest, National/State Park, property etc.

Fall Line: The most direct line down a hill. Mountain bikes generally operate best just off the 'fall line' when climbing or descending.

Hammering: Going your absolute hardest, giving it your maximum effort.

Jump: The initial acceleration before a sprint or break away.

Massed Start: Events where all competitors line up together and leave the starting line at the same time.

MTB: An acronym for "Mountain bike".

Knicks: Padded lycra bike shorts.

Leadout: A race tactic in which a rider accelerates to top speed for the benefit another rider. The following rider uses the drafting effect to race past for the final sprint.

Pitch / Gradient: Is any notable upgrade or downgrade on a trail / road.

Prime: A special prize awarded to the race leader on selected laps of a Criterium race or the 1st rider to reach a specified land mark in a Road race (Pronounced Preem).

Runout: The area just below a steep section of trail where you attempt to regain control after a fast descent. The longer the runout, the faster the descent that is possible.

Single track: Any mountain bike track too narrow for vehicle access.

Sitting On / Drafting: This where a cyclist rides directly behind another to conserve energy by slip streaming. A rider sitting-on/drafting, is shielded from the wind, which makes riding easier.

Throwing the Bike: A technique used in the final metres of a sprint finish where the rider attempts to push the bike as far forward as possible, hoping to edge out another sprinter.

Singles: Are tyres that have the tube sewn inside the outer tyre casing.

Turns: "Taking a turn" is where each cyclist rides at the front of their respective bunch or group in turns of 100 to 200m.

TRACK CYCLING

This section on Track Cycling provides a summary on the following areas:

1. Bike Set-Up for Track
2. Types of Track Races
3. Track Equipment
4. Track Skill Requirements

1. Bike Set-up for Tack

The principles used in bike set-up for Track is very similar to Road, however, there are slight differences and variations which will be explained in this section.

When cycling becomes more advanced, bike set-up varies depending on the type of event. For example, the "Pursuit" event requires a much different position than the "Sprint" because of the aerodynamics and power output requirements of each. This finer detail is not required when starting out.

Correct set up on a Track bike will improve aerodynamics, comfort, and power output. The main areas to focus on when setting-up a Track bike are:

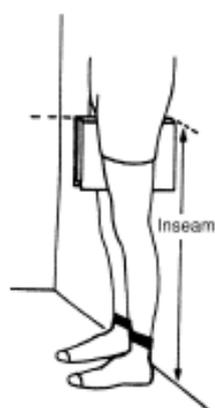
- A. Body Measurements for Set-Up
- B. Track Frame Size
- C. Track Seat Height
- D. Shoe Position on Pedals
- E. Seat Position (Fore-Aft Position)
- F. Upper Body Position

A. Body Measurements for Set-Up

First and foremost in bike set-up is to obtain various body dimensions, which are to be used in various formulas to determine correct set-up. The most important measurement is the inseam measurement explained below.

I. Dress in a pair of riding knicks and thin socks. No shoes.

II. Measure the distance from the floor to



crutch to obtain the inseam measurement.

To do this, place a thick spined book between your legs as if to use it as a seat while standing upright on a hard floor surface with your back to the wall. Mark a line along the top of the book edge which is touching the wall. Using a tape measure or ruler, measure the distance from the floor to the height of the mark. This is the inseam measurement (do measurements 4 or 5 times and take an average).

III. Now substitute the inseam measurement into the various formulas.

B. Track Frame Size

A correctly sized frame will give you a balance between height and length as well as responsiveness and comfort.

<p style="text-align: center;">Track Frame Size (cm) Inseam (cm) x 0.65</p>



Note:

This measurement is taken from the centre of the bottom bracket to the centre of the top tube. Run the tape measure along the seat tube.

C. Track Seat Height

Overall seat height is perhaps the single most important measurement for determining correct positioning on a Track bike. Incorrect seat height can result in a less efficient pedalling action and reduced power output.

Being too low on the bike will cause bunching up on the bike and can restrict the full

contraction of the leg muscles. Being too high on the bike will result in lost energy through rocking on the seat and can cause over stretching of the muscles.

There are 2 methods by which to correct seat height:

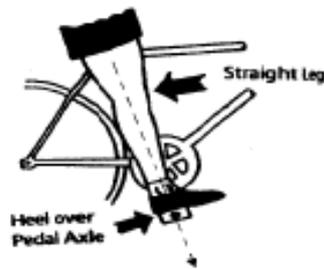
I. The Heel method

II. The Calculated method

I. The Heel Method

The easiest way to achieve correct seat height is through the simple heel method.

- In the normal riding position turn the cranks until they line up parallel with the seat tube of the bike frame.
- Now, position the centre of the heel directly over the centre of the pedal axle.
- Adjust seat height up or down until leg appears fully extended.



Note: If the heel of the shoe is thicker than the sole under the ball of the foot, the seat will need to be lowered accordingly (eg. if heel is approx. 3mm thicker than the shoe at the ball of the foot, lower the seat by an extra 3mm).

II. The Calculated Method

- Take the same inseam measurement and substitute it into the formula below to determine seat height.

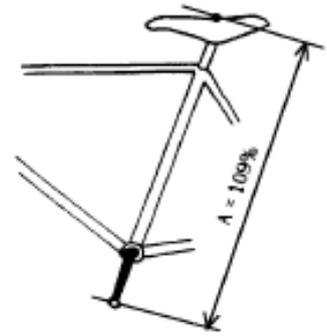
Track Seat Height

109% of your inseam or $1.09 \times \text{inseam (cm)}$

The above formula will provide a starting point for seat height which will be at the upper level of the adjustment range. For those with smaller than normal feet, the seat height needs

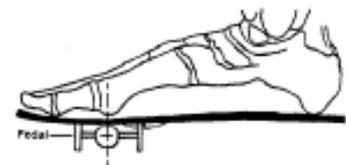
to be dropped by 1cm or so.

Seat height is measured from the centre of the pedal axle (crank lines up with seat tube) through to the top of the seat cup. Run the tape measure along the seat tube.



C. Shoe Position on Bike

- Position the shoe cleat so that the pedal axle lines up directly under the ball of the foot. This is the point where the greatest transfer of energy is obtained.
- Provided there are no structural / alignment problems with the feet, they should point directly forward when in the pedals (parallel to the crank arm).
- This is called the "ZERO" position.
- Should problems exist with the feet, DO NOT attempt to straighten them out. Set the cleats to accommodate this characteristic rather than correct it.
- It's possible that the locked pedal position might be responsible for overuse injuries in the knees, ankles and hips. To avoid these injuries there are clipless pedals that offer movement in the cleats (eg. LOOK ARC).



D. Seat Position (Fore-Aft Position)

- Loosen seat bolt to slide seat back on its rails as far as it will go then re-tighten.
- Make up a plumb bob. Tie a key or squeeze a blob of "Bluetak" to the end of a 1.5 metre long piece of string.
- On a level surface, lean bike against a wall

and sit in your normal riding position with feet at the 3 o'clock and 9 o'clock position (ie. cranks parallel to the ground).

- Have someone drop the plumb bob line down from the tibial tuberosity on the forward knee (this is the small bump just below the knee cap) to the floor in between the cranks and frame. Position foot parallel to the floor.
- Adjust saddle position forward until the plumb bob line falls directly through or just slightly behind (1-2cm) the centre of the pedal axle re-tighten seat bolt.
- Check to see that the seat is perfectly level. Check this with a spirit level or lean bike against brick wall and check against the brick lines (make sure floor is level).



E. Upper Body Position

Upper body extension is very much a personal thing. There are no rules for correct positioning just general guide-lines. The goal for most Track cycling is to find a healthy balance between power output aerodynamics and comfort.

Head Stem Height

This depends on your height and frame size, a good guide-line is for the top of the head stem to be 5cm - 10cm below the top of the seat.

Lowering the head stem even further will improve aerodynamics, however, it might feel more uncomfortable to those who are less flexible in the lower back, hips and hamstrings. It's a personal decision.

Head Stem Length

Whilst in the racing position on the bike, looking directly forward, have someone drop a plumb bob line from the tip of your nose. Ideally, the line should fall directly through or

within 1-2 cm behind the centre of the point where the handlebars connect to the stem.

2. Types of Track Races

Sprint Racing

This event is a race between 2 riders (one on one) over 3 laps of a velodrome. Riders play a tactical game of "cat & mouse" over the first couple of laps in an attempt to keep the actual sprint down to 200m to 300m.

Time Trial

This event an individual race against the clock over 500m - 1000m.

Points Race

Riders accumulate points through a series of sprints during the race at designated laps. The race distance varies from 5km - 40km depending on the competition and age groups.

Individual Pursuit

Two riders start at opposite sides of the track and attempt to catch one another and to record the best time they can. The pursuit is held over distances from 2000m to 4000m.

Teams Pursuit

Same as the individual pursuit but raced in teams of four. Through the advantages obtained from sitting-on / drafting behind another rider and with each team rider doing turns of pace at the front, a team will travel faster than an individual. The teams time is based on the third rider to cross the finish line.

Madison

A madison is a track event where two riders (one racing at a time) compete as a team. Similar to a relay but the riders make multiple changes throughout the event which can run from 30min to 2hrs.

Handicap Race

A popular event in Australia which features at most of the major Track opens, however it is not a championship event. The handicap is usually run over 2000m. Depending on the

grading and past performances riders are allotted a handicap mark around the track.

Scratch Race:

A mass start race over a distance that can vary between 5km and 20km depending on the age, ability and event.

Other Track Races:

Olympic Sprint, Keirin, Elimination

3. Track Equipment

A Track bike has no hand brakes (not permitted), only one gear and the pedals and wheels are fixed, so when the bike moves forward the pedals and cranks do as well. Placing pressure on the pedals backwards reduces speed gradually unlike hand brakes on a Road or MTB which are more rapid.

As Track events are conducted in smaller areas (a velodrome), a fixed wheel bike is safer as it minimises sudden braking (which occurs with the hand braking system) which reduces sudden sharp movements thereby making bunch riding on a track / velodrome safer.

Without hand brakes, additional gears and gear shifting devices, a Track bike is lighter which makes it faster.

Gear selection for a track bike depends on age, ability and type of event and needs to be performed manually by taking the back wheel out of the frame and unscrewing the rear cog. The front gear (chain ring / cog) is fastened by 5 bolts which need to be taken out to change it.

Toe Straps

Toe straps are rarely used in Road and MTB events but are widely used in more explosive events like the "Sprint" and "Time Trial" as they are more secure and reduce the chances of "pulling the foot" from the pedal.



4. Track Skill Requirements

Below is a summary of skills specially required for Track Cycling. For more information refer to Cycling's Level One Coaching Manual.

Riding a "Fixed Wheel" Track Bike

As mentioned earlier a Track bike uses a "fixed wheel system", for this reason it takes a little getting used to.

With the fixed wheel system, stopping is achieved by placing pressure backwards on the pedals which reduces speed gradually. The fixed wheel system takes far more time and effort than a bike with hand brakes.

Its important to train on a track or velodrome before competing, seek the advice of a Track coach before starting out

Riding a Velodrome / Track

Velodromes / Tracks in Australia vary in length from 250m - 500m, the smaller the track the greater the banking that is required on the bends. Banking on a velodrome can be as steep as 45 degrees. Given these facts, an important track cycling skill is to be able to ride on a velodrome / track safely and in control.

Short steep velodromes at speed can be easier to ride than longer flatter tracks, neither of which are that difficult to ride but do require a little coaching guidance, practice and confidence.

Turns of Pace and Bunch Riding

Turns of pace and bunch etiquette vary slightly for Track events. Turns are done by using the banking of the velodrome. Riders "swing" / "ride" up the banking to allow the next rider in the bunch to take their turn at the front. Track bunches are usually single file for the majority of a race. Towards the end of a Track race the bunch will "fan out" with cyclists riding up to 5 abreast as they race to the finish line.