

SPRINTING

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Over the course of the next month the CBTL will be holding four sprint instruction sessions after the regular training sessions on Saturdays. The first session will be held Saturday May 9, subject to weather. This session will be an introduction to the match sprint designed for people who have not participated in a match sprint before, but it will also be useful to those who have already competed but would like to know a bit more.

I have prepared a brief description of the race with some picture examples that will be useful to look at before the session.

FIRST SPRINT SESSION

Ten minute warm up

The warm up will consist of 20 laps in a pace line with half lap pulls. This will be a good time to work on some bike skills that will help you in sprinting. Using the banking is a critical skill for sprinting. As you near the end of your half lap pull, move over to the sprinters line. When you reach the beginning of the corner give two hard pedal strokes and climb the banking at a steep angle. From high on the banking time your descent so that you get on the wheel of the last rider at exactly the same speed as the pace line.

When the first rider moves to the sprint line before going up the banking, the second rider should come up a bit on the inside so there is no chance of crossing wheels when the first rider goes up the banking.

As you ride following the wheel in front of you think of how much you are affected by the person in front when you are riding that close.

In a race situation riding too close at low speeds gives the advantage to the lead rider, but riding close at high speed gives the following rider the advantage from the slipstream.

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Banking exercises

After the warm-up we will do some exercises to get comfortable with the banking.

We will ride in a line with about two a bike length separation between riders. We will ride close to the rail on the banking fairly slowly but when we reach the point on the banking that is in line with the sprinter's lane we will make a sharp turn stand and go straight down the banking into the sprinters lane. We will stay in the sprinter's lane through the banking and then go to the rail and repeat the exercise. We will do this five times with the objective of becoming comfortable standing and accelerating down the banking.

The next exercise is similar except we will be dropping down the banking at the beginning trying to get to the sprinter's line by the middle of the banking. We will do it twice sitting before we try it standing and then we will do it three times standing.

The last exercise is to get used to riding the banking at high speed. When you are moving quickly the banking feels very similar to the straights except for the "G" force. We will ride with about a bike length spacing at about 40k going back and forth across the Madison line on both the straights and in the banking for two laps to get the feeling of doing this on the banking.

We will stop for a while and review the flying 200 strategy and then do two laps in a line spaced by about two bike lengths practicing the line for the flying 200.

On our track we start the 200m TT from the home straight on the apron. You start as soon as the previous rider goes by on the final lap. The timing strip generally goes up to the Madison line and you are asked when you start to make sure you go above the timing strip so you don't interfere with the time for the previous rider.

You are trying to use as little energy as possible so it is a good idea to climb the banking out of corner 1 slowly reaching the top of the banking by the end of corner 2. Use the banking to pick up your speed on the back straight and try to hold this speed by hitting the banking about half way up on corner 3 and reaching the top of the banking by corner 4.

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From Corner 4 use the banking to pick up your speed and stay at the rail to corner 1 accelerating throughout. Keep accelerating up at the rail sitting down until just before corner 2 where you stand and start your final acceleration. Stay at the rail all the way around corner 2 and then take a straight line to hit the start line just above the sprinters line. This will give you a steady downhill trajectory to the start line and puts you right on the gage line in corner 3. You should have already reached your top speed standing before the start line and will be sitting and accelerating to as fast as you can go when you hit the line. Try to stay as close to the gage line as possible around corners 3 and 4, and continue down the home straight across the finish line. As you get near the finish focus on a point five meters past the finish and keep your speed up right to that point. This will prevent you from relaxing before the finish and losing precious hundredths of a second.

This is a good way to do the 200m TT, but it is not necessarily the best way for everybody, because of different people's strengths and weaknesses. It does however make a good starting point from which to experiment and determine your own optimal trajectory.

The key aspect is that you hit the start line at your maximum speed and you use as little energy in the process of getting yourself to that point so you have as much energy left for the part that counts.

Also if you take this trajectory on a different track such as the 333m track in Edmonton it will not work because the start line is in a very different position relative to corner 3 and an entirely different trajectory is needed. The key thing is still the basic principle that you want to hit the start line at your maximum speed using as little energy as possible to get there. In all cases you want to hit the start line going down the track and once you hit the start line you never go up the track.

Each rider will then be timed for a flying 200m and we will set up sprint pairs for match sprints based on these times. (Close times competing against each other)

We will finish off with sprint heats so everyone gets a chance to race at least once, possibly more depending on how many show up.

Norm K.