



St. Catharines Cycling Club's Virtual Coach 24 Week Plan

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This plan has been designed to make use of the club rides for training and for the athlete to build on their skills and fitness in a methodical manner. This plan has been designed to help riders gradually increase their strength and fitness over a 24 week period.

Suggestions that will be helpful in following this program (or any program for that matter).

There is a progression to training. To get stronger on a bike, you really only need a bike and you just need to ride it. However, many people have achieved a higher level of success by having extra feedback. Having speed and cadence on the bike is helpful feedback. The use of a heart rate monitor is also very helpful. A power meter is very very helpful. This being said, you don't have to go out and purchase these things right away. Ask a friend to borrow one of these items and witness for yourself how your body reacts to efforts. If you do decide to purchase something, it is helpful to have an uploadable cycling computer that records time, distance, speed and heart rate. Start with what you can afford. Many of the Garmin style computers also allow you to easily upgrade to heart rate and power if you ever decide to go this route.

Keep a journal and record what you do, how you feel, daily goals and accomplishments. This information will help keep you accountable and on task, and also provide you or a coach with valuable information. A company called Training Peaks has an excellent online system that is free for the most basic information and is upgradeable for a monthly fee.

Terms

PE - Perceived effort. Guessing your effort level by how your legs/lungs feel. It can be very inaccurate on it's own, especially with new inexperienced riders.... but, everyone has to start somewhere and paying attention to it helps a rider learn about their body.

HR - Heart Rate. HR combined with PE is a method that has been used for quite sometime and improves the level of feedback for both the rider and the coach. HR can sometimes be misleading when a rider is very tired or has perhaps had one too many cups of coffee, but for the most part can be very useful feedback.

Power - A power meter combined with a heart rate monitor is the most accurate way to for an individual to record and monitor their efforts. As long as the system is working properly and calibrated, it will never lie. This type of system is a little expensive (prices continue to come down as more companies are coming on the market), but will pay for itself in the long run. It helps track improvement and is also helps an athlete keep in their training zone during a workout.



Zones - This training plan is structured around 6 training zones. The rider needs to forgo some Testing to calculate their zones (the zones are based on what the riders Lactate Threshold is). There are various methods of finding out these zones. A rider can do their own tests, but it can be very difficult to do on your own (especially with little or no experience in doing this can be difficult and often inaccurate). I would recommend to start to have a qualified coach supervise the test with you. You can contact me at coach@thecyclistsedge.com if you wish to arrange a test. A riders zones need to be monitored and tested from time to time as they can change with a persons level of fitness.

Recovery - This is a very important part of training. We make our bodies tired when we work out and it is important to rest. If our bodies do not recover properly, then we can not be as strong as we could be. There is no one exact formula to know how much recovery you need, but this is part of the learning process. Different types of workouts require different lengths of recovery. Part of the journal writing process is to help you figure this out.

Periodization - To be our best, we need to change up our training in both volume and intensity. Fitness, when pushing to be your best, is not a perfectly linear thing. It's more of a peaks and valley type of thing. Training is broken up into Blocks or Chunks. During the block or chunk the body is pushed. At the end of these blocks or chunks it is important that the training back off a little to get ready for the next block or chunk. Changing things up helps prevent stagnation or over training.

Goal Setting - Goals are what get us on our bike when we are tired. Goals help us keep in the group. Short term goals help us to keep moving forward. Long term goals help to keep us on track. Goals should be written down and open to our friends and support systems to keep us accountable. Examples - Daily * goal of not getting dropped by the group). Weekly * Complete the entire training plan. Yearly * Complete a century.

In general, to improve on something, we need to do it 2-3 times a week. If you are totally new to the sport then you will probably see improvements by doing something just once a week. The more experienced you are, the more work it takes to improve on something, which is why most world class athletes are full time athletes (they don't have time for anything else).

Volume - Everybody is starting in a different place at the beginning of this program. To properly build fitness there is a progression I recommend you follow. Gradually increase your weekly volume over a month. The last week of the month, decrease your weekly volume to allow your body to recover a little and be ready for the next block of training. Here is an example.

Week	Number of Hours
1	10
2	10.5-11
3	11-11.5
4	10-10.5



The month following you can start off with the total weekly hours that you did in week 2 or 3. It is also a good idea to decrease the intensity a little at the end of a block to help prepare for the next block.

TIPs

- Do not drag race your friends every time you get on the bike
- Do not sprint up every hill
- If you want to follow this plan, follow it. If you only follow parts of it, you will never know if it will work for you or not.
- approximately every 4th week should be of lower volume and intensity. This will help your body recover from any built up fatigue and get you ready for the next block of work.
- If the weather is poor, either put on suitable clothing and get out there or get on the trainer and try to replicate the prescribed workout as close as possible.
- Most of the sport of cycling is aerobic and to improve on overall general fitness, you need to spend most of your time in aerobic zones (zones 1-4)
- Do not be afraid to take a day or two off from time to time if you are fatigued. However, our brain sometimes tricks us into thinking we are tired. Sometimes it's best to get on the bike and warm up before you decide you are too tired to ride. If after you have warmed up, you still feel fatigued, finish up with some recovery level effort and call it a day.

Warm Up

5 minutes of yoga. Do 3-5 sun salutations. This followed by a 20 minute progressive warm up on the bike, starting at a recovery pace (zone 1) and working up to zone 3 by the end (this can be done simply by clicking up a gear every few minutes once the gear you are currently in feels too easy (some days this will happen quicker than others).

Cool Down

At this point you can repeat something similar to your warm up but in the opposite manner. 5 - 10 minutes of easy recovery level spinning (zone 1) before you get off of the bike. Then do 5 minutes of yoga. Do 3-5 sun salutations. Be sure to stretch out your hamstrings, especially if your lower back feels sore or tight.



Conconi Test - Items needed. A bicycle set up on a trainer that has a speed sensor. You will also need a heart rate monitor. If your heart rate monitor is not recordable and uploadable, then you will need someone to record the information as you perform the test.

1. Warm up on the trainer for 15-20 minutes.
2. Make sure that your heart rate monitor and speed functions on the bike/trainer are functioning properly.
3. During your warm up take note of a speed that has you working, but that you know you can hold for quite some time. You will use this as your starting point for the test.
4. Begin riding at your starting speed and keep it steady at that speed (use whatever gear/cadence you need to hold this speed). Hold that speed for 1 minute. At the end of that minute, record your heart rate.
5. Increase your speed by one KM/H and hold that speed steady for 1 minute. Again, record your heart rate at the end of the effort.
6. So, keep following this pattern of increasing your speed by 1KM/H and recording the heart rate at the end of the effort until you are no longer able to hold the speed steady for the entire minute. Do not take any rest breaks in between efforts.
7. Have your assistant also record how you are feeling and how you are breathing while you are doing the efforts.
8. You should see a spike in your heart rate at the point where you reach your lactate threshold. Other indicators that you have reached your lactate threshold are a mild burning feeling in your legs and a laboured breath (Lots of burning and very laboured breath is beyond your LT).

This is what your zones should look like once you are done (LTHR stands for Lactate Threshold Heart Rate)

Zone 1 Less than 81% of LTHR

Zone 2 81% to 89% of LTHR

Zones	Power/Heart Rate
1	0-145 / 100-123
2	146-197 / 124-150
3	198-236 / 151-170
4	237-275 / 171-190
5	276-314 / 191-up
6	315-up / NA



Zone 3 90% to 93% of LTHR
 Zone 4 94% to 99% of LTHR
 Zone 5 100% to 102% of LTHR
 Zone 6 More than 103% of LTHR

If you don't get the zones right, right away, try not to stress about it too much. Even when working with a coach these things need to be adjusted from time to time. If you are not sure, ask someone who knows.

Zones

Zone 1	This is a very easy recovery level ride. It is often best done on your own as you will then will not be inclined to try to keep up with someone who may have other goals for the day.
Zone 2	Just a little harder than recovery. This is a pace that you could ride for a very long period of time at. Usually done on flats (it's difficult to stay in this zone on hills).
Zone 3	This pace has a little more speed and intensity to it. There is tension on the muscles and you are labouring a little. You can still converse with others in this zone, but keeping focused on the effort can make the two things difficult (when talking it's easy to drop into a lower zone).
Zone 4	You are now working hard. There is quite a bit of tension on the muscles and your breath is becoming laboured (you can still talk, but in very broken conversation). There is only a very mild burn in the legs at this effort level. This workout is often done on long climbs of more than 3 minutes in length. The maximum most people can hold this level of effort is usually around an hour.
Zone 5	This is what most people time trial at. Breath is very laboured and there is burning in the legs. If you go just a little bit harder, you won't last long (a very fine line between this and zone 6).
Zone 6	This zone has a very large variation of power and effort. All efforts in this zone only last from 10-120 seconds. These efforts require large amounts of recovery in between efforts (Sprints is one example of what is done in this zone).



2018 Weekly Training Plan April

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
						1 Tempo
2 Tempo	3 Tuesday Night Training Ride	4 Tempo	5 Sprint 1	6 Recovery or Zone 2	7 Hill Repeats	8 Tempo
9 Recovery	10 Tuesday Night Race or Hill Repeats	11 Tempo	12 Sprint 1	13 Recovery or Zone 2	14 Rockway Ride Start Fryin Guys Start Club Ride or Hill Repeats	15 Fryin Guys Start Sunday club ride or Tempo
16 Recovery	17 Tuesday Night Race or Hill Repeats	18 Tempo	19 Sprint 1	20 Recovery or Zone 2	21 Club Ride or Hill Repeats	22 Sunday club ride or Tempo
23 Recovery	24 Tuesday Night Race or Hill Repeats	25 Tempo	26 Sprint 1	27 Recovery or Zone 2	28 Club Ride or Hill Repeats	29 Sunday club ride or Tempo



May

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Apr.30 Recovery	1 Tuesday Night Race or Hill Repeats	2 Fast Paced Rockway Start or Tempo	3 Sprint 2	4 Recovery or Zone 2	5 Club Ride or Hill Repeats	6 Sunday club ride or Tempo
7 Recovery	8 Tuesday Night Race or Hill Repeats	9 Fast Paced Rockway Start or Tempo	10 Thursday Night Time Trial Start or Sprint 2	11 Recovery or Zone 2	12 Club Ride or Hill Repeats	13 Sunday club ride or Tempo
14 Recovery	15 Tuesday Night Race or Hill Repeats	16 Fast Paced Rockway or Tempo	17 Thursday Night Time Trial or Sprint 2	18 Recovery or Zone 2 Set up for Steve Bauer Classic	19 Club Ride or Hill Repeats Volunteer for Steve Bauer Classic	20 Sunday club ride or Tempo
21 Recovery	22 Tuesday Night Race or Hill Repeats	23 Fast Paced Rockway or Tempo	24 Thursday Night Time Trial Start or Sprint 2	25 Recovery or Zone 2	26 Club Ride or Hill Repeats	27 Sunday club ride or Tempo
28 Recovery	29 Tuesday Night Race or Hill Repeats	30 Fast Paced Rockway or Tempo	31 Thursday Night Time Trial Start or Sprint 2			



June

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
				1 Recovery or Zone 2	2 Club Ride or Sprint 1	3 Sunday club ride or Tempo
4 Recovery	5 Tuesday Night Race or Sub-LT	6 Fast Paced Rockway or Tempo	7 Thursday Night Time Trial or Sub- LT	8 Recovery or Zone 2	9 Club Ride or Sprint 1	10 Sunday club ride or Tempo
11 Recovery	12 Tuesday Night Race or Sub-LT	13 Fast Paced Rockway or Tempo	14 Thursday Night Time Trial or Sub- LT	15 Recovery or Zone 2	16 Club Ride or Sprint 1	17 Sunday club ride or Tempo
18 Recovery	19 Tuesday Night Race or Sub-LT	20 Fast Paced Rockway or Tempo	21 Thursday Night Time Trial or Sub- LT	22 Recovery or Zone 2	23 Club Ride or Sprint 1	24 Sunday club ride or Tempo
25 Recovery	26 Tuesday Night Race or Sub-LT	27 Fast Paced Rockway or Tempo	28 Thursday Night Time Trial or Sub- LT	29 Recovery or Zone 2	30 Club Ride or Sprint 1	



July

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
						1 Sunday club ride or Tempo
2 Recovery	3 Tuesday Night Race or HIT	4 Fast Paced Rockway or Tempo	5 Thursday Night Time Trial or HIT	6 Recovery or Zone 2	7 Club Ride or Sprint 2	8 Sunday club ride or Tempo
9 Recovery	10 Tuesday Night Race or HIT	11 Fast Paced Rockway or Tempo	12 Thursday Night Time Trial or HIT	13 Recovery or Zone 2	14 Club Ride or Sprint 2	15 Sunday club ride or Tempo
16 Recovery	17 Tuesday Night Race or HIT	18 Fast Paced Rockway or Tempo	19 Thursday Night Time Trial or HIT	20 Recovery or Zone 2	21 Club Ride or Sprint 2	22 Sunday club ride or Tempo
23 Recovery	24 Tuesday Night Race or HIT	25 Fast Paced Rockway or Tempo	36 Thursday Night Time Trial or HIT	27 Recovery or Zone 2	28 Club Ride or Sprint 2	29 Sunday club ride or Tempo



August

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
July 30 Recovery	July 31 Tuesday Night Race or Sub-LT	1 Fast Paced Rockway or Tempo	2 Thursday Night Time Trial or Sub- LT	3 Recovery or Zone 2	4 Club Ride or Sprint 1	5 Sunday club ride or Tempo
6 Recovery	7 Tuesday Night Race or Sub-LT	8 Fast Paced Rockway or Tempo	9 Thursday Night Time Trial or Sub- LT	10 Recovery or Zone 2	11 Club Ride or Sprint 1	12 Sunday club ride or Tempo
13 Recovery	14 Tuesday Night Race or Sub-LT	15 Fast Paced Rockway or Tempo	16 Thursday Night Time Trial or Sub- LT	17 Recovery or Zone 2	18 Club Ride or Sprint 1	19 Sunday club ride or Tempo
20 Recovery	21 Tuesday Night Race or Sub-LT	22 Fast Paced Rockway or Tempo	23 Thursday Night Time Trial or Sub- LT	24 Recovery or Zone 2	25 Club Ride or Sprint 1	26 Sunday club ride or Tempo
27 Recovery	28 Tuesday Night Race or Sub-LT	29 Fast Paced Rockway or Tempo	30 Thursday Night Time Trial or Sub- LT	31 Recovery or Zone 2		



September

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
					1 Club Ride or Sprint 2	2 Sunday club ride or Tempo
3 Recovery	4 Tuesday Night Race or SPAM	5 Fast Paced Rockway or Tempo	6 Thursday Night Time Trial or SPAM	7 Recovery or Zone 2	8 Club Ride or Sprint 2	9 Sunday club ride or Tempo
10 Recovery	11 Tuesday Night Race or SPAM	12 Fast Paced Rockway or Tempo	13 Thursday Night Time Trial or SPAM	14 Recovery or Zone 2	15 Club Ride or Sprint 2	16 Sunday club ride or Tempo
17 Recovery	18 Tuesday Night Race or SPAM	19 Fast Paced Rockway or Tempo	20 Thursday Night Time Trial or SPAM	21 Recovery or Zone 2	22 Club Ride or Sprint 2	23 Sunday club ride or Tempo
24 Recovery	25 Tuesday Night Race or SPAM	26 Fast Paced Rockway or Tempo	27 Thursday Night Time Trial or SPAM	28 Recovery or Zone 2	29 Club Ride or Sprint 2	30 Sunday club ride or Tempo



<p>Recovery</p> <p>Zone 1</p>	<p>The goal here is to keep the legs loose and provide the body with some active recovery. This is a good workout to use on resistance training days or off days. Use an easy gear and spin at a higher cadence than usual. Avoid hills.</p> <p>Heart rate/Power: Zone 1</p> <p>Volume: .5 - 1 Hour max. Recovery can also be added to the end of any other workout if you have the time and energy.</p>
<p>Endurance</p> <p>Zone 2</p>	<p>On the road, warm up 20-30 minutes in Zone 1 until legs feel loose (if on the trainer or rollers warm up 10-15 minutes). The goal of this workout is to keep the legs loose and to burn off a little extra body fat. This is a good workout to use as an addition to higher intensity rides. Use an easy gear and spin at a higher cadence than usual. Avoid steep hills.</p> <p>Heart rate Zone 2</p> <p>Volume: 2-4 hours each ride</p>
<p>Tempo</p> <p>Zone 3</p>	<p>On the road, warm up 20-30 minutes in Zone 1 until legs feel loose (if on the trainer or rollers warm up 10-15 minutes). The goal here is to train and to burn off fat during moderate riding. Use a comfortable gear and concentrate on riding smooth, spinning at a cadence of 80-90rpm. Drop your cadence down to 60-70 rpm from time to time. Long gradual climbs work well with this workout.</p> <p>Heart rate/Power: Zone 3</p> <p>Volume: 1-3 hours each ride</p>
<p>Sub-Threshold (Sub-LT)</p> <p>Zone 4</p>	<p>On the road, warm up 20-30 minutes in Zone 1 until legs feel loose (if on the trainer or rollers warm up 10-15 minutes). The goal here is to raise your lactate threshold. This is done by riding just below your lactate threshold. Use a comfortable gear and concentrate on riding smooth and keeping your upper body still (no rocking of the shoulders). Long gradual climbs work well with this workout.</p> <p>Heart rate/Power: Zone 4</p> <p>Volume: .5 -1 Hours at Sub-LT. (this can be broken up into 10 or 20 minute intervals if you like, just try and shoot for 1 hour total in this zone)</p>

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<p>Hills</p> <p>Zone 4</p>	<p>Hill repeats in this case are going to be treated like the Sub-LT workouts listed. In this case you need to find a long hill with a gradual climb. The hill should last 3-5 minutes up and be gradual enough that you can ride at a cadence above 50 rpms (higher would be better). Pick something up the escarpment... and if you are planning on racing the Niagara Classic, using Effingham would be good. The workout is as follows.</p> <p>On the road, warm up 20-30 minutes in Zone 1 until legs feel loose (if on the trainer or rollers warm up 10-15 minutes). The goal here is to raise learn to pace yourself while climbing and increase your climbing capabilities. This is done by riding just below your lactate threshold. Use a comfortable gear and concentrate on riding smooth and keeping your upper body still (no rocking of the shoulders). When you get to the top, turn around and come back down (this is your recovery time). Once you get to the bottom, repeat. You want to work towards a total climbing time of 1 hour.</p> <p>Heart rate/Power: Zone 4</p> <p>Volume: .5 -1 Hours at or below Sub-LT.</p>
<p>SPAM</p> <p>Zone 5</p>	<p>Goal: To increase oxidative capacity of type 2 muscle fibers and lactic-acid buffering capacity.</p> <p>Gear: As needed.</p> <p>Cadence: Preferred.</p> <p>How to: After a warm-up, perform 4-minute intervals with 2-minute recovery</p> <p>Intensity: Heart Rate/power: Zone 5</p> <p>Volume: 6-8 intervals. Stop when you can no longer sustain power.</p>

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<p>Sprint 1</p> <p>Zone 6</p>	<p>Warm up 15-30 minutes until legs feel loose spinning in a small gear. Then do one set of short sprints followed by one set of long sprints.</p> <p>Short Sprints (8-10 seconds)</p> <p>The goal here is to train at your energy systems used at the end of a race. This can also be done from a rolling or standing start for practicing your starts for timed events.</p> <p>Use a big gear and concentrate on accelerating. Short steep climbs can sometimes be used for this workout.</p> <p>Heart rate NA - These are maximum effort</p> <p>Volume: 2-3 reps, 5 minutes spinning in zone 1 in between sprint efforts</p> <p>Long Sprints (60 seconds)</p> <p>The goal here is to train at your energy systems used at the end of a race. This can also be done from a rolling or standing start for practicing your starts for timed events. The first 45 seconds is at a time trial like pace, simulating the high speeds at the end of a race. The last 15 seconds is giving it your all (again, simulating the end of a race).</p> <p>Heart rate NA - These are maximum effort</p> <p>Volume: 4-6 reps, 5 minutes spinning in zone 1 in between sprint efforts</p>
<p>Sprint 2</p> <p>Zone 6</p>	<p>Warm up 15-30 minutes until legs feel loose spinning in a small gear. Then do one set of short sprints followed by one set of long sprints.</p> <p>Short Sprints (8-10 seconds)</p> <p>The goal here is to train at your energy systems used at the end of a race. This can also be done from a rolling or standing start for practicing your starts for timed events.</p> <p>Use a big gear and concentrate on accelerating. Short steep climbs can sometimes be used for this workout.</p> <p>Heart rate NA - These are maximum effort</p> <p>Volume: 2-3 reps, 5 minutes spinning in zone 1 in between sprint efforts</p> <p>Long Sprints (20-30 seconds)</p> <p>The goal here is to train at your energy systems used at the end of a race. This can also be done from a rolling or standing start for practicing your starts for timed events. If you are doing this on your time trial bike, get into your aero bars after 10-15 seconds.</p> <p>Use a comfortable gear and concentrate on riding smooth. Short steep climbs can sometimes be used for this workout.</p> <p>Heart rate NA - These are maximum effort</p> <p>Volume: 4-5 reps, 5 minutes spinning in zone 1 in between sprint efforts</p>



HIT	Do 6-10 of these with 4-5 minutes rest in between
Zone 6	http://www.youtube.com/watch?v=fYLwdTIUuaI * The video states to start out at 2.5 times your VO2 power. Ignore this as this stat is not geared towards elite level athletes. Just go as hard as you can. Don't focus on power. Focus on the effort and muscle recruitment (pedaling in a circle, using everything). Your power will naturally taper off. The focus is to just keep pushing and going to the bigger gears as the interval progresses.

Workouts

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