



# Indoor Cycling

Are you in the Zone?

## HEART RATE FOCUSED RIDING BY LAURA WARF

**W**ith winter approaching, indoor cycling studios fill up as riders look for ways to dodge ice, snow and cold. Training indoors has numerous benefits including: a more controlled setting for drills, no traffic, great music and continuous coaching. Overall, training indoors is a great opportunity to focus on specific areas of conditioning throughout the year.

Keep in mind your participants may be there for different reasons. Teaching cycling, like any other class, is about educating, motivating and transmitting your passion to create a fun yet effective ride every time.

### Cycling With an Objective

This past summer our club participated in a fund raiser “Vélo à Notre Santé” (cycling for health) to collect money for one of the local hospital foundations. Not only were we riding for a good cause but it gave members a goal. Participants had the choice of five departure points to pedal 25, 50, 70, 107 or 200 km on the day of the event. Throughout the summer we organized outdoor rides of 40, 60 and 93 km to gradually prepare for the 107 km ride most had committed to. Combining indoor cycling classes with organized outdoor rides, participants were able to build up the necessary strength and endurance required for the big day.

It was a great opportunity to educate people on the importance of progressive training. Progressive training is one of the main elements to achieving success. By monitoring heart rate during training sessions, you can measure with greater accuracy the effort your body expends during exercise. I recommend the use of heart rate monitors in all my classes to help people gauge how hard they are working during specific drills and how quickly then can recover following timed intervals.

### Proper Planning for Optimal Results

Workouts or classes should be well balanced throughout the week to allow for proper recovery. We know that interval training using multiple combinations of intensity, volume and recovery periods assists in improving speed, strength and performance. However, used improperly or more than twice per week or without a solid aerobic base, this type of training can overload the body in a negative way leading to injury, overtraining, fatigue or a depressed immune system. One common indicator to verify over training is by monitoring resting heart rate (RHR) first thing in the morning for five consecutive days. RHR indicates the amount of mental and physiological stress your body is experiencing. An

## Benefits of Heart Rate Training

- Heart rate indicates fitness, fatigue and effort on the bike.
- Safety; HR is a gauge to assess the intensity of your workout to make sure you are not overexerting yourself and are recovering adequately.
- Training is more efficient when properly monitored.
- Provides precise guidelines to follow each ride.
- Improve health and fitness levels by exercising in appropriate zones.
- Helps in goal setting.
- Improves motivation by seeing measurable improvement week to week.
- No guessing or counting just precise personal numbers.
- Using a heart rate monitor is important because it provides immediate, continuous, accurate feedback.

elevated RHR (a reading of 10 percent or more over normal RHR) may indicate overtraining. In this case, it is recommended to reduce the training load or rest completely until RHR returns to normal.

The basic premise of interval training is to overload the body's systems and then allow for adequate recovery. The overload acclimatizes your muscles and cardiovascular system to accept increased effort, with less pain involved in the sessions that follow. This means you can go faster and feel better at higher intensities.

The end result of a well planned interval training session should be a functional and effective ride that will encourage participants to progress



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# Understanding Heart Rate

## Resting heart rate (RHR)

- To calculate true RHR, take your HR first thing in the morning before getting out of bed for 5 consecutive days and calculate the average.
- RHR indicates general fitness level, a low resting heart rate can indicate an efficient cardiovascular system and large stroke volume (amount of blood pumped per beat).

## Maximal heart rate (MHR)

- MHR refers to the greatest number of times your heart can contract in one minute.
- Your HR increases in a linear fashion as the intensity of the activity increases. As you workload increases, you eventually reach a point where your heart beats at its maximal rate.
- MHR allows you to base your training effort on a percentage of your maximal HR.

## VO2max

- VO2max is the greatest amount of oxygen the body can use during a sustained bout of maximal exercise.
- The body uses oxygen to convert food into energy. The more oxygen you can take in and convert, the more energy, power or speed you can generate.

## Lactate Threshold (LT)

- As exercise intensity increases, the body eventually is unable to remove lactic acid at the same rate as it is produced, this point is known as lactate threshold.
- LT represents the highest steady state exercising intensity you can maintain for more than 30 minutes.

## Working Recovery Heart Rate (WRHR)

- WRHR is the number of beats your HR drops upon finishing a training interval or a complete workout.
- As fitness level increases, you will notice faster recovery time.

## Calculating Maximal Heart Rate

- Laboratory testing of MHR & VO2max (most accurate)
- Sub maximal testing
- Estimated heart rate calculation (age adjusted)
- Men: 220-age
- Women: 226-age

farther than they thought. Interval training can even assist in breaking through performance plateaus.

Remain attentive to your group at all times; modify and instruct based on what you observe such as: shortness of breath, facial expressions or someone who stops pedaling. Classes should include a balance between work intervals and recovery periods appropriate to the class level. Guide participants verbally and direct them towards certain work zones. The chart I have included demonstrates several ways to coach intensities. Through the use of heart rate monitors participants know exactly where they need to be at all times with precise cueing from you. For example: during your warm up phase, you could say "We should be riding in Zone 1-2 right now which corresponds to 60-69% or your maximal heart rate." If working in a Zone 4 or 5, allow time to drop 20-30 beats before beginning the next interval. The time it takes for the working recovery heart rate (WRHR) to drop depends on the fitness level of your group. The fitter you get, the faster the heart rate will recover.

### Stay in the Zone

Regardless of the fitness related goals: improving overall health, weight management or winning athletic competitions, monitoring heart rate is a good idea. Eliminate the guesswork; tailor workouts and exercise within specific target heart rate zones to achieve full potential in fitness or athletic objectives. Our heart tells us how much recovery we need – in between intervals and in between workouts for optimal recovery and health maintenance.

### Educate, Motivate, Communicate

Keep your classes full all winter by remaining committed to your group. Offer fit tips each session to keep them coming back for more. The end result? Proud clients who remain healthy, motivated and great ambassadors for your club. ☐

### Choices in monitoring intensity during the ride:

• Zone 1 Active Recovery	RPE 1-2	< 60%
• Zone 2 Endurance (easy to medium)	RPE 3-5	60-69%
• Zone 3 Lactate Threshold (medium to hard)	RPE 6-7	70-79%
• Zone 4 Anaerobic (hard)	RPE 8-9	80-89%
• Zone 5 Maximal Effort (all out)	RPE 10	90-100%

### Reference:

Fitness Cycling by Dede Demet Barry, Michael Barry & Shannon Sovndal, MD; Human Kinetics

Laura is presenting at the Calgary Can-Fit-Pro conference. Visit [HYPERLINK "http://www.canfitpro.com"](http://www.canfitpro.com) www.canfitpro.com to register for the conference and attend her sessions!