



The Art of Coaching Endurance Training in Indoor Cycling

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“When you slow down enough and begin to listen, you will find the body to be a wealth of important feedback that, when attended to, will ensure a safe, enjoyable, and lasting fitness program”

John Douillard. Body, Mind and Sport



Endurance...Defined

The ability to ride for long duration at an optimum pace, while resisting fatigue.



Objectives

- Define components of an endurance training class
- Physiological benefits of endurance training
- Compile “ingredients” necessary to coach this training Effectively
- Identify coaches’ strategy
- Organize and format the class
- Create sample class plan
- Coaches’ Vocabulary



Components of Endurance Class

RPE 13-15

Modified Borg scale 3-5

Light, Somewhat Light, Moderate, Somewhat Hard

Zones 2 and 3

All types of terrain

Mentally engaged

Music selection



Physiological Benefits of Endurance Training

- Increases stroke volume
- Increased flow of oxygen-rich blood to the working muscles
- Decreases resting heart rate
- Increase in the number of capillaries, resulting in greater blood flow to working muscles
- Ability to convert metabolic by-products such as lactate, back into an energy source or utilized as fuel
- Increase in size and number of mitochondria
- Increase in blood volume
- More activated muscle fibers = greater force
- Increase in efficiency
- Builds foundation for higher intensities
- Increase in body's ability to access fat for fuel
- Improves fat utilization/burning
- Increases aerobic muscle fiber development
- Enhances type I and IIa muscle fibers



Ingredients

•Physical

Pedal stroke

Energy release

Upper body

Breath work

Tempo

•Psychological

Focus

Breath work

Comfortable in “endurance skin”

Effective Visualization

Quiet mind...attach it to the movement



The Coaches' Strategy

- *Get "in front" of the student*

Anticipate

Set class expectations

- *Engage the student*

Educate!!

Set tasks

Mental and physical inventory

"Power strip" = putting it all together



Setting the Stage

Class introduction is critical

Set training parameters, goals

Expectations

Task their mind

Coaches' body language

On/off bike

Coaches' Presentation

Voice

Eye contact

Cueing

Frequency

Tone

Vocabulary

"See-saw" technique for engagement

Employ "power strip"



Cueing suggestions

- Patience
- Discipline
- Courage
- Commitment
- Steady use of energy
- Harmonious
- Trust
- Flow
- Calm
- Settle into terrain
- Harmony between pedal stroke and breath
- Breathe – it's your fuel
- Efficient
- Discipline..control
- Foundation
- “Generating energy”
- Maintain composure
- Body is a sponge...soaking in the training
- Maintain your composure
- Waves...fluid rhythm



Pure Endurance The Ride

Warm up

Set the stage, create the atmosphere, set expectations, “plant seeds”; explain physiological effects so they understand the purpose of the training.

Song 1

Terrain/Position: In the saddle, flat...just heading out

Intensity cue: Lower end of Zone 2 (60-65% of LT) easy to somewhat easy, breathing is somewhat relaxed

Coaching: Determine focal point...make it home base....your quiet place to think. Relax into that focal point....bring in breath work

Song 2

Terrain/position: Seated Flat (for those new to increased saddle time...encourage breaks whenever they need...maybe allow 3 passes)

Intensity cue: Gear change – subtle but enough to feel a slight difference in breath...bring heart rate up a couple of beats...still a feeling of complete control

Coaching: Bring awareness to pedal stroke. Notice the symmetry, or not? Do your pedal strokes feel balanced? Let's zoom in on them....isolate your right leg...let it take your left leg for a ride. Notice the feeling in the muscles in your right hip, upper leg, lower leg, knees and ankle since your right leg took over....feel the changes as you are employing every muscle in the leg and hip to do their job within the stroke....now shift the work over to the left leg....let your right leg go for the ride as your left takes over...notice..again, the feeling of 360 degrees of fluid effort...Repeat this drill enough to fill about 75% of song...then fuse the pedal strokes – bring both legs in together...get the feeling of a perfectly executed pedal stroke

Song 3

Terrain/Position: Slight rise in terrain...very subtle hill, in the saddle

Intensity: Gear change to reflect the base of a moderate hill, heading toward the upper end of Zone 2 65-69% of LT



Coaching: We are going to remain “bigger than the hill” in breath...it will not bring us out of “control” of breath. Incorporate breathing techniques...inhale through nostrils as much as possible, inhale right down to the belly...feel it expand, your diaphragm drops and expands allowing lungs to fill...feel chest rise...inhale down to the lower lobes of the lungs where the most oxygen-rich blood resides. Deflate as you exhale....notice the pause at the base of your exhale....repeat...making the student aware of every breath and the importance of it...it is their fuel....be greedy...take as much as you can. (Now, bring their awareness back to their pedal stroke as if they are “checking in” making sure it’s still “plugged in”....*power strip*)

Song 4

Terrain/Position: Flat Road (seated but with maybe one or two posture breaks *optional*)

Intensity: We are going toward the middle of our endurance parameters; Upper end of Zone 2...work is considered moderate...increase resistance

Coaching: At this point students may be feeling the effects of being in the saddle...have them bring awareness to their pedaling technique (*power strip*), the position of their upper body...relax the shoulders using breath work (*power strip*), slight bend in the elbows creating “shock absorbers” or movement absorbers...use the “garden hose” analogy...no kinks...everything is fluid...go through the muscles in the shoulders, back, triceps, grip on bars...keeping everything as relaxed as possible...so the upper body accepts the movement and flow of energy from the pedal strokes...the upper body and lower body need to be on the same team. Let them, like sponges, absorb this feeling.

Song 5

Terrain/Position: Flat road with some standing challenges sprinkled throughout the song...the amount of times you bring them out of the saddle will be determined by how well you perceive them handling their intensity as they come out. Watch closely, if they look like their heart rates are bouncing up too high and out of their endurance parameters...limit the amount of times you ask them to come out. Make it a “special challenge” see how they react.

Intensity: This song will bring them towards the upper end of their endurance parameters...Lower portion of Zone 3... 70% of LT

Coaching: The objective here is to coach control of their breath as they come out of the saddle and maintain breath control each time



they come out. Encourage them to go to their focal point before bringing them out of the saddle...become aware of breath...HR will elevate slightly as they will be incorporating more muscles when they stand...but they can manage their breath and ultimately manage their HR. Watch them closely each time they come out...watch their facial expressions, their technique...are they leaning into the bars, losing symmetry in the pedal stroke, or maintaining it all? Be the coach here....Remind them of the physiological objectives of class...they need to work with oxygen, not at a deficit to continue to utilize primarily fatty acids as fuel. “Don’t blow the training here”...encourage them to sit if they feel like they’re working too hard.

Song 6

Terrain/Position: Seated flat

Intensity: Lower end of Zone 3 (top of endurance parameters) 70-75% LT

Coaching: We will now ask them to find their flow...the rhythm of their movement as it relates to the rhythm of their breath. As the movement from your pedal stroke finds it’s way through your torso, let it ripple up your spine as if it’s a highway, energy flowing towards your shoulders, neck, down into your arms, your hands and back into the bike...re-cycle that energy...bring it back through your pedal strokes...notice the way your body has found it’s own rhythm. Go to your focal point, your rhythm is your own, not to be emulated...it’s your body’s creation...Let them ride this...Get them comfortable in their Endurance Skin!!! Have them take a physical inventory. How does their body feel; legs, shoulders, abs/breath, lungs, breath work...have them blueprint this feeling in their minds. Begin to build the “feeling” of endurance into their muscle memory.

Song 7

Terrain/Position: Seated flat (a few times out of saddle optional)

Intensity: Top of endurance parameters 70-75% LT, Lower end Zone 3

Coaching: Breath efficiency, Pedaling efficiency, Flow, Mindful Riding = Connected...This is like the grand finale....pulling every element that you broke down in the previous songs and bringing them all together. Much like a director does with the orchestra....rehearses each section, and then pulls them together for the final product. Take time to discuss the pedal stroke – bring their awareness (mind to muscle) into their pedaling...feel it, correct it, own it....move onto their breath work...have them take 10 perfect breaths on their own



as if each breath is food for the legs, take them through the “garden hose” analogy as it pertains to the flow of energy throughout their body...synchronize them all into the final package.....

Song 8

Terrain/Position: Seated flat

Intensity: Bring heart rate down to Zone 2...

Coaching: Guide them in bringing the heart rates down through decreased resistance, noticing the breath becoming easier.

Cool down..... Have them reflect on the ride, it's intensity, the control they were able to maintain...reiterate the physiological benefits as they cool down...use the “sponge” analogy...their bodies are absorbing the training...choose some of the benefits we listed in the workshop and remind them what they did in training their bodies during the ride and how their bodies will benefit with continued endurance training. It's not a “one shot deal”....

The above class is structured with “jobs” for the students...keeping their minds engaged and keeping them (with the guidance of the coach) in the correct training zone. They will be engaged the entire ride as long as the coach is doing their job. Enjoy!!!



“The most important thing to me is, how in the process of learning how to use my body, can I come to understand myself”

Bruce Lee, 1971

Thank you for taking the time and energy to broaden your knowledge as it pertains to coaching endurance in the indoor cycling arena. The change really has to come from you....the coach...before the students can “buy into” the training objectives. Be patient...believe in what you are doing....before you know it your students will be asking for more. Remember, indoor cycling is not always a “pedal to the metal” training environment. As with any fitness program, it should be based on periodization, which simply means incorporating peaks and valleys in your fitness training program.

I welcome any questions or concerns you may have. I can be reached at janjet2@comcast.net

In fitness and in health,

Janet Toussaint

