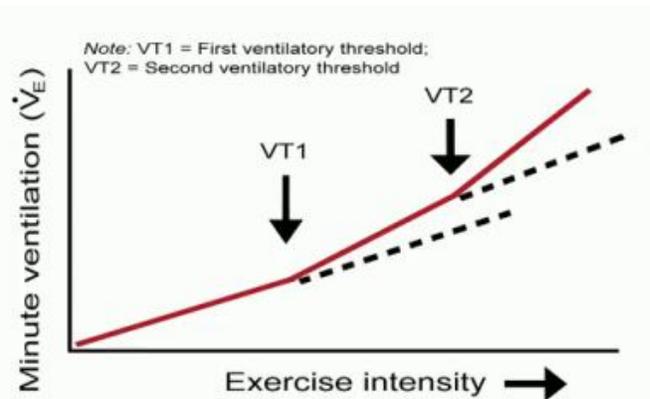


**John Macgowan:** Hi, and welcome back to another Indoor Cycle Instructor PRO podcast. I'm John Macgowan, your host, and joining me is master instructor Tom Scotto. How are you, Tom?

**Tom Scotto:** I'm doing well today, thanks John.

**John Macgowan:** Well, I appreciate you joining me. We're going to be discussing a series of posts that I have put up that were entitled "Is a 20-minute threshold field test realistic for your class?" There are three parts to it, but our focus really is going to be about Part 3 where I introduce ACE, The American Council on Exercise. Their recommendations that, what they describe as personal trainers, but they're essentially talking to all fitness professionals, start using a two-threshold, three-zone based system that I see really fits the needs of instructors who are struggling to communicate the whole concept of zone-based training. First Tom, I just want to ask the question, is this really different than anything you've been doing in the past?



**Tom Scotto:** Not really. You know, I think even before we were doing a lot of indoor cycling and even cycling we were still --the cycling world, at least the ones that were you know, into the coaching, with the Friels and the Burkes that you know, throughout you know, some of the big coaches, we've always used threshold as a way of figuring out what our zones are going to be. So you know, using that word framework, I think our framework has always been the same and this is just another way I think as you said earlier, to give the instructors and our riders something that they can understand and use.

**John Macgowan:** Obviously, we all want get away from you know the, to train lesser age that tends to be prevalent. And I've advocated in the past for a standard and maybe standard isn't the right word to use, but I've been looking for something that was less complicated, easier to communicate and that would tie to a metric, you know, a metabolic metric that an instructor can help a student discover in the course of any given class. And what they're describing here is a --essentially the Talk Test that Dr. Carl Foster developed who actually will be at our conference this fall. Is that something that you've been using in the past?

**Tom Scotto:** Yeah, the past and present. I mean, we've been using Carl Foster's Talk Test as part of our protocol or toolbox so to speak, you know when we do not have a metabolic cart or unit available to do a gas exchange or to do a lactate analysis. So it's a great, great tool and obviously very suitable indoors.

**John Macgowan:** What is your experience as far as you know, when you're testing through a metabolic assessment contrasted with you know, self-administered Talk Test? What do you see as the accuracy?

**Tom Scotto:** Well, I think the accuracy is usually based more on the fitness and awareness of the person that we're testing and I think they both have challenges. I mean, doing a VO2 test, the person is wearing a mask, if they're not accustomed to that or if they have any claustrophobia or you know, anything where they are uncomfortable with the mask, that is going to you know, affect your results. And I think, we see the same variance when someone's in a class and talking and trying to gauge whether they can or cannot say a phrase.

You know, based on their fitness level and how wise they were and how they ramped themselves up, the majority of the accuracy is -- or I should actually say, the greater percentage is accurate, like 80% where I see a common thread between this is what I got out of my VO2 test, and this is what I did indoors and then I think there's always people that fall off you know, for various reasons on either side of the spectrum.

**John Macgowan:** Is it better than nothing?

**Tom Scotto:** Oh, absolutely, yeah hands down.

**John Macgowan:** One of my concerns is, and I can be guilty of it and I could -- I see it in others is that our concerns for perfection you know, prevent us from doing the good. Does that make sense?

**Tom Scotto:** Absolutely.

**John Macgowan:** And so you know, to give our students some understanding of something, and from my perspective in every class, can only be helpful. How would you recommend an instructor kind of introduce this concept to their students if they've never talked about it before?

**Tom Scotto:** You know that, I mean I came into the indoor cycling world as a cycling coach so I came from the outdoors in. And the biggest value I find in any fitness is learning to become aware of your body. So, I think from that premise alone, as an instructor to just come in and say, hey, look, we're going to do a class that's going to get you more in touch with how your body responds to the workout.

And you know take it one step at a time and let them learn just even the changes in their breathing. These are things that they can identify with as opposed to saying, well, you're at you know, you're at so and so millimoles you know, for the lactate test or you know, the VO2s. You know, you're -- whatever milliliters per kilogram per minute or at you know, whatever 16 point what. It's just very confusing as opposed to, oh yeah, yeah, I recognized when my breathing changed there and I recognized when my breathing got difficult here. You know, those are very relatable things that they are not going to have to study you know, when they walk out of the class.

**John Macgowan:** And that's always been my objective, it's to help something that -- so people can feel individually successful if that's the right way to explain it.

**Tom Scotto:** And just to point this out because a lot of people are surprised sometimes when I say this, because I say this in my indoor classes. The perceived effort and the body awareness is so critical. Outdoors, as a coach, it is one of the primary things that I focus on when I'm working with riders, whether it be beginner or elite level.

Because if they can't communicate to me what they're feeling and that it --and it's somewhat accurate, it's very hard for me to coach them based on the numbers because I don't know what the numbers actually cost them. So it's something that's -- not just for, oh, I'm a beginner so all I have to work on is awareness you know touchy-feely, no, this is all spectrum of athletics down to, hey, I just want to get fit.

**John Macgowan:** My experience has been you know, the longer that I trained has you know, I put the quotation marks around "competitive athlete", I started very late, the more in tune I got to just what you described, the, well, how I felt. And I became less and less dependent on my heart rate monitor to the point where you know, and I'm going to guess you can pretty much know when you're on your bike where you are without looking.

**Tom Scotto:** Yeah, for the most part.

**John Macgowan:** Is it critical that we have heart rate monitors in class then? If we can take this huge group of people that really have little understanding of zone-based training and help them understand you know that they're at their -- well, what ACE calls the ventilatory threshold, what I'd -- we'd just call T1 and then their anaerobic or LT threshold 2. Is that enough without giving the student an understanding of what actual number that is?

**Tom Scotto:** Well, I think it's a starting point. I mean you're -- you've opened it up by saying, is it critical, and I would say no, it's definitely not critical. It's a tool and I think it's a really good tool. The reason I would say I would recommend it, highly recommend it is, I mean, and I'll give you both sides of the coin. One is if you just have this feeling of you know, here is when my breathing goes X and here's when my breathing goes Y and if you don't see where that's actually happening using a heart rate monitor to be able to look into it, you're not going to know whether you're improving or not.

And maybe that's not important to some people, but you know, what most people want to know is, okay, well, I hit this certain point in my breathing and you know just for -- to throw out a number you know, last month it was 120 and now you know, I'm hitting the same spot at 130. So, I'm able to go a lot longer before I'm sensing, you know, I'm in trouble. That's a positive thing and I think it's very encouraging in a world where indoor cycling doesn't have a lot of tools, we really have no way of knowing you know, is our fitness getting any better.

I mean we're sweating more and feel like the workout is harder but just don't have any proof. But I think on the other hand, sometimes we get so wrapped around the tool that the tool limits us, you know? I know my threshold or one of those thresholds is this number and that number becomes a collar, a leash and they don't improve or even notice they're improving because they feel that that's the number they have to live at. So I think you know, I'm about using the right tool for the right purpose and making sure that it's always in a helpful mode that we're focused on numbers or not focused on numbers.

**John Macgowan:** That was a point of one of my other posts on this series was exactly what you described and I see it frequently in my class that someone, they have a number and I have to tell you a funny story of a guy who I used to ride bikes with all the time. And he came up with some understanding of what his threshold was and he literally would refuse to exceed it and so we ended up waiting for him, because he would not ride any harder. Because somewhere, somebody told him that -- you know, and he was one of these annoying people that his heart rate monitor beeped the whole time and he -- but he wouldn't turn it off.

And yet he's a friend so you know, you could tolerate it to some point but sometimes we would just ride away from him, because he just would not exceed it because somebody sometime had told him, oh, never exceed that number. And so, I know exactly what you're speaking of, but the concern I had with say a long duration of threshold field test was that for a lot of our students that don't have the fitness in place to be an athlete by definition or what they are defining as, is that they're actually finding a number somewhere between T1 and T2.

And then all of a sudden now they're looking at that as their threshold number. And either it's going to limit them because they're going to run all intervals above or below it, actually never getting the threshold or maybe confusing to them saying, okay, wait, I was told that this is my number and yet I am not feeling these upper threshold feelings, breathing changes, those types of things. Is the three-zone system applicable across the board or do you see application for you know, the four or five-zone systems that maybe be more prevalent for some?

**Tom Scotto:** Well, I see each of the systems as a tool, you know. And you know, whatever, it might probably sound redundant at this point. But the fact that they're based around the low and high thresholds, the T1, T2 or whatever you want to call them VT1, VT2, LT1, LT2, that's the more important piece, because that's what's individual and unique about each of our metabolic systems. So, I would use three and I do use three sets of zones, which are all based around those two identical thresholds and I choose which set of zones I'm using based on the needs of the person.

So, I would say that for most indoor cycling applications where you have a beginner or intermediate rider that's a fitness enthusiast, the three-zone system is going to be exactly what they need. They don't need any further detail as to what happens in between or inside of those zones. I think targeting the thresholds, which are the stress points in their body, is going to be exactly what the doctor ordered.

If I'm working with someone who is -- needs a more detailed or specific type of training into, maybe they're an endurance athlete, a tri-athlete or something of that nature, having five zones where there's specific markers I can hit. For example, in Zone 1 in a five-zone system, Zone 1 would include the recovery zone and the endurance zone. So if I really needed someone to really go and recover one day, I would need to be specific as to where they would need to be riding, so I would use a five-zone system which would give me that specificity for that rider.

And then, if you take the other end of the spectrum where you have someone who's explosive athlete, or you know, mountain bikers, the cyclo-cross road racers, we need to carve up zone

five even further. So in that case, you can call it a seven zone system whatever, but Zone 5 will be 5A, 5B, 5C. Again for specific reasons, if the rider has no reason to train and be that specific in that zone then splitting that up is pointless for them.

**John Macgowan:** Are we or have we in the past perceived our students as being at a higher level of fitness than they actually are?

**Tom Scotto:** I don't know. That's a good question. As instructors, we might want our students to be at a different place than where they actually are for maybe our own purposes but --or just for own status to say, hey, I go in and teach this way to my riders and they follow it, you know, of course that's not -- everyone does that. But I think we just have such -- it's always been a challenge, as we have such a huge range of fitness levels and experience in our classes that yeah, you've got to figure out who you're talking to and how to best address them.

But I mean that's always been our challenge, that's one of the reasons with Cycling Fusion, we're really advocating those levels to put the rider where they need to be so they can understand what's going on and give freedom to the instructor to not have to speak out of both sides of their mouth.

**John Macgowan:** Oh, I couldn't believe more and I, you know, see the concept of just as a starting point, as you know, developing some introductory classes where exactly what you described that you know, we can speak to people comfortably or speak to the group at the level that they're at. Rather than, you know, I guess I mean from my own perspective, you know I'm concerned about the you know, the occasional team cyclist that's in the class and yet you have brand new people. In actuality, though that --the endurance athletes in our classes, they really don't need a lot of direction from us, do they?

**Tom Scotto:** No. As long as they have the overall focus of what the class is about, they're good. Yeah, I totally, totally agree with you.

**John Macgowan:** Do you have experience trying to segregate fitness levels by developing new classes or putting one half of the room in the other half, I don't know, I mean do you have any experience or ideas on that end?

**Tom Scotto:** I mean, I think I've experimented with a number of different ways you know, including having beginner classes. We've had beginner classes that were a half-hour before the regular class and that has always worked well. It's given beginners a chance to come in and experience the class and it's given those who are not beginners, a place to come in and warm up. You know, I always tell them, look you can come in the class and warm up, but I don't want you intimidating anybody, because that's the reason why they don't come to our class, because they are intimidated.

So if you, you know, you want to take the extra half hour to warm up and spin your legs, sit in the back and smile. We've done things where I have classes at certain clubs that are labeled a certain way, which indicates they are more advanced. So, they're still open to everyone but they're going to attract a more advanced crowd that's interested in a coaching style of a presentation. There's lots of different ways to do it and it's interesting that you say that

because I think that if I broke down my classes there would be the sort of the beginner entry-level, intermediate sort of class which is all indoor stuff and then the three-zone system works really well for them.

And then I have the small group training in the club, which people pay in addition for and they're usually smaller classes you know, eight to twelve people and I go to a five-zone system for them. And then I actually have indoor classes that riders come in and they bring their bikes and trainers and they're all on their own, riding their own bikes and we use that seven-zone system for them. So, I've pretty much run the gamut with the you know, who's expecting a lot, who's used to using a lot, who's going to understand the best as how to get to that intensity level that you're describing.

**John Macgowan:** All right now let me shift you from heart rate to power, is there an application to use a three-zone system in power-based classes? Now that concludes Part 1, and we will be getting some feedback from Tom as far as the three-zone system as it applies to power-based training plus some of his other ideas and coming up in Part 2.