

John Macgowan: Hi and welcome back this is a continuation of the Pro Podcast that Tom Scotto and I recorded. We're going to take it up where Tom and I get into the two threshold three-zone system makes sense in a powerbase class, enjoy. Right now, let me shift you from heart rate to power; is there application to use a three-zone system in powerbase classes?



Tom Scotto: Actually good question, I have seen a lot of different research I mean I know we have landed a lot in the past you know, functional power or power at threshold, I personally not done a lot of work looking at power at the first threshold. I think the common way to build zones was you know, FTP (Functional Threshold Power) which you know, I won't say all the time, but you know it kind of falls possibly into that T2 area, because of its sustainable nature. Yeah, I guess it's a good question that might be a question to ask Karl Foster to see if he has done or seen any research where the second, the first threshold I should say, the lower one has any power applications to it where you can build zones from it.

John Macgowan: You know I took a class here a couple of weeks ago with a young instructor and ended up having lunch with her and she ask me the question she said, what would you have done differently, if you are going to give me some advice. And it's a small studio they have Keiser bikes. And my recommendation to her would be that you find some way to communicate some metric that's individualized each person in the class.

And you know, obviously we can do that with some threshold number, but you know just occurred to me that you know, that there may be some way to do that with power as well, you know to find a low threshold power you know, and then tie it to that breathing change maybe you standardize on some cadence level, I mean there is something like that makes sense.

Tom Scotto: Yeah, and I'm sure there is a lot of ways to factor that in you know I think power adds another dimension because now you are also factoring in you know muscular skeletal stress in addition to you know respiratory respond. So and you know, we build the full set of zones off of power in a five zone, in a seven zone system it's just that we have not, you know, we have not pin pointed the lower threshold so, because the lower threshold does move a lot if you know, looking at it from a ventilatory perspective you know.

I just don't have any data to say oh, you know they definitely coincide or here is where they are at I'm pretty sure that the upper threshold probably is going to be something you can get pretty close to from a power standpoint. But I look forward to seeing where people go with that, I think it's you know, it's stuff I love and I love to see some research on it.

John Macgowan: Another one of my objective is when I talked about a standard for heart rate training zones was that it would be kind of open sourced, but you know, I see everybody trying to brand whatever it is they can monopolize it, but that's just prevents you

know, it causes a multiple languages you know about the same thing and I see it as confusing to our members.

So, the point is it would be neat if our instructors maybe we could crowd source it to use you know, what I'm saying, you know, we're you know to get a large number of people, because that's really what you are talking about when you are saying what's the data you know, we're you know to get a large number of people because that's really what you are talking about when you are saying what's the data you know, we're just looking for test subjects you know, to try something you know, maybe we can develop some simple protocol that we could throw out for people to experiment with and then give us their feedback, I mean does that makes sense?

Tom Scotto: No. Absolutely and I think the more feedback and input we can get and I think we're talking about two different things here you know, the thing I always battle with is the research world which is when you get really heavy into data analysis and I think that's really not what we're trying to do here. I mean, I think there is a time and place for that, but in the indoor cycling industry it's not that we're trying to be dumb, but we have to really figure out how to communicate something clearly you know, it's not about throwing out the terms it's not about knowing specific you know, new meters of force that we're going to applying at certain zones and respiratory rates, it's about how do we train people appropriately in class and make it fun and allow everyone to do something that's going to be specific and helpful to them.

So, I think you know the crowd source of thing, but I think we have to go in with a mind set of you know, we're not trying to do a research study here. We're trying to figure out how do we better help the riders that are in our classes.

John Macgowan: We're trying to develop practical things that we can apply to class.

Tom Scotto: Exactly.

John Macgowan: Right, and you know as one – learned a long time ago that my ideas always sound good to me, the ideas to get it out there get other people experimenting you know give us their feedback on it, because let's go back to the Keiser bike you know I want to get away from add two gears, now I had two more gears, that works for me doesn't work for this you know, 90 pound women next to me.

Tom Scotto: Absolutely.

John Macgowan: You know, so we need to be able to use this technology in a way that isn't intimidating and yet as understandable, you know my biggest fear is that I'm saying things in class and people are looking at me like my dog looks at me and I misperceive it as that they are understanding when they are really not.

Tom Scotto: Right.

John Macgowan: You know, but there is noise and they just pack up leave within the class and I congratulate myself for educating them when I really told them noting.

Tom Scotto: Well, the reality is and I spend a good part of my week analyzing heart rate and power data from the riders I coach. And there is always that falls out of the box even on an athlete that you got consistent data on so, for us to go into an indoor cycling class and expect that you know, that would be able to lock in on this you know, the system that's always going to work with fitness levels that are just all over the spectrum I think it is really not a good use of our time.

What I would like to see happen with the indoor environment is you know definitely there is some ways that helping people based on what where their numbers tend to land, but the more games and fun we can have with designing drills and classes around numbers and things that will not get so into the science, but you know we want to teach them the science eventually, but more you get to experience what their numbers are and what their numbers tend to do, because I think we get focus, they did this one class they got this one number and you know the rest of your life is based on this.

You know, I could do three tests with an athlete and wind up three sets of numbers based on how they are feeling any given day. So, you know, it would be great to look at the numbers and say what kind of fun can we have with this power number or this heart rate number and what can we use it for to teach them something about how they are experience to work out where their bodies at or how they have been improving. I think those are most useful things that we can do in the indoor cycling world that's not so focused on you know training everyone like an elite athlete.

John Macgowan: And maybe I didn't make it clear before is, my objective is you know, with this and that's why I like the save system, is something that we can help people identify a metabolic marker in every class, just like in this video this woman is going through is that could be part of the warm up we help people understand you know T1 low threshold today in this class.

Tom Scotto: Right.

John Macgowan: And we can work off of that number, you know my understanding we are talking about new leaf and a lot of personal trainers in my own personal experience interesting the woman in the video are T1 and T2 are exactly the same as mine are. Is it accurate that for most people P1 is 10% less than P2, is that your experience?

Tom Scotto: No.

John Macgowan: What do you see?

Tom Scotto: Seeing everything I have seen it where T1 is within 10% to 7% of T2 and I have seen as much of a 40% difference in that all depend on how someone is trained. So, let me what you basically hit on is the beautiful of using the thresholds as a code, that's what gives me all the – as Karl would say, the warm and fuzzes and I get Goosebumps as soon as I see where those markers land.

I know exactly what the person is been doing in their training and in their riding in their whatever is their group fitness classes. And I know exactly what I need to do to get them to their next level fitness that's the thing, to me that the keeper when it comes to thresholds.

John Macgowan: Okay, so let's say you have the example where you have a large percentage difference T1, T2, what is that tell you?

Tom Scotto: In most cases, not all, but in most cases the person is doing a lot of short 45 minute one hour classes or workouts, so I think that's what they do in the gym at higher intensity and they have not done the lower intensity longer joints workouts that going to enable better fat utilization and adaptation for their aerobic and cardio system. So, basically what that means is as soon as they get on the bike they hit their T1 fairly quickly and there is a long period of time that goes on before they hit their T2.

John Macgowan: And then improvement would be shown through what change?

Tom Scotto: Mostly through change in duration of time and that usually fixes a lot of things, because they are probably working too hard all the time, because they know how much they can throw down for an hour. And what I usually recommend to people particularly on a tight schedule they always say look I can't work out any longer you know I got to get to work by this time etcetera.

What I usually recommend them to do is put two 90 minute workouts in the week and wanted a suggestions I make for them doing this is you know talk to your boss figure out if you can do something it work where you can come in half hour earlier one day and then come in a half hour later the next day to get that 90 minute ride and what that 90 minute ride does is, one, you cause your body now to have to indoor for a longer period of time, but it also helps you with your intensity because you cannot hold the same intensity for 90 minutes that you are holding for 45 and an hour. So, I mean there is obviously a little bit more detail that we would go into that, but that's a good starting point.

John Macgowan: What changes would you see in their thresholds then?

Tom Scotto: If the person is being disciplined with it and getting that endurance, you including that type of workout you won't see often times a lot of change in the upper threshold the T2, but you will start to see their body now become more efficient and utilizing fat and also enhancing some of the cardio quality of their fitness and you will see the T1 start to against ride depending how you looking at it visually. It would come a lot later and it would be closer and proximity to the T2.

John Macgowan: Okay, so one of the person trainers has tested me a couple times, he calls him the spinners, what's your describing?

Tom Scotto: Okay, that's a – probably. Yeah, that could --

John Macgowan: You know when he is doing metabolic assessments, he will – the same thing you have very little aerobic development and yet and aerobically you and that's where you spend the majority of your time.

Tom Scotto: Well, just to give you example for myself personally I had a knee injury about a two years ago now and I haven't done any real racing I wanted to but I had like, I reinjured my knee and did some other wacky stuff to it. So, for two years I have done mostly you know, not that like I have tooled around, but my intensity levels have been considerably lower than they would have been if I was in a competitive mode.

And I raised my T1 from 140 to 156, so my ability to utilize fat, which is all I told my body it was allowed to do for two years has dramatically increased. So, now if I can get my body in gear and do some of the high-end training I would be rocking, but of course that's you know, that's a little yeah, I got to get there, but I have seen it, you know I have seen the proof workout in my own life in my own training.

John Macgowan: Would it make sense you know, and I'm just kind of going with this conversation here is a scenario you have a typical class you know, there is a pretty big percentage that's regular I think that's common in most clubs, does it make sense to at least track their progress you know, even from a simplistic sense as far as you know what your perception of T1 for example and tie to a heart rate monitor. And as an exercise for the instructor I have some understanding of who is in the class and who isn't, does that make sense?

Tom Scotto: I think it makes sense, but I think like everything you are not going to get everybody on board with that.

John Macgowan: Okay.

Tom Scotto: I mean, it would be a beautiful thing to do that, I'm not sure if I mention this to you before, but I have what I call my black book in class and it's basically each rider had a sheet if they so desire up at the front of the room I don't force anybody to do it, but I basically let them know if they want any additional attention or you know help from me, on maybe they are doing a charity ride or whatever, whatever their goals are just to go out and fill out one of the pages in the black book.

And I basically, I tell them just first name I don't want to know your last name you know, for all that security and reasons that we can't keep information in health clubs. And they just put their T1 their T2 whatever they got it from a recent goal and then they put their recent workout and then they put their goal in there, in this way when I'm walking into the classroom I look and see okay, so and so is here they have a sheet in my black book.

Oh, they are doing that charity ride, who does workouts you know very, very high intensity I'm going to go up to them specifically and give them some direction, but they will go back occasionally and update where they feel like their heart rates are and that's a good way for me to know that they are improving, I'd to get some encouraging for them, but that's the best way I found to do it. I think trying to get the whole class to do it, it would be awesome and then I would realize it was a dream and I woke up. That was a real class, oh bummer, everyone has a heart rate monitor on this is awesome.

John Macgowan: Right and I realize and again that was just kind of a stream of conscious thought that throughout, but it would be interesting to see more about your black book now that you describe it, maybe you should do a post on, tell us about that.

Tom Scotto: Yeah, I think that's another post on, right that day.

John Macgowan: Yeah, because I – and again realizing you know that heart rate training survey I did was hugely I opening and first says an understanding that the majority of us, I'll teach a box clubs were really limited you know and the things that we can do above and

beyond so begin with we're never compensated for it, so that – so it becomes an active charity.

Tom Scotto: Well, what I will say is that the black book concept and also just doing small group trainings, which a lot of clubs do you, know, you get that paid program. It does convert more people you are not going to still not going to convert everyone, but if someone sees you know like what will happen typically I will go to a rider and give him specific direction as far as workout and then I'll walk away and then someone say oh, what was that and I said, oh, I you know, told out this thing and Tom knows what I'm doing and he just gives me little insight and sometime people go, oh, that's nice and other go I'd like that too.

And of course you know if they want to get that kind of help from them, help from me, I'm going to start to influence them with my you know, voodoo magic to get them to start wearing a heart rate monitor so I can help them better. So you know, it all depends on how much time you have and how much mental energy you have, but you know there is ways to win small groups of people over to the more the tools and some of the fun stuffs that we're doing.

John Macgowan: Right and hopefully you know, we're going to get some entrepreneurial instructors or studio owners to look at you know the potential we'll say it financial opportunity you know for small group training not to mention the fact that just like you said there going to be certain people in your class that A can afford it and B would appreciate something like that. And so, yeah, maybe you guys need a right – maybe need to write a book all about that Tom.

Tom Scotto: I will put it on my list.

John Macgowan: Not like you don't have anything else to do.

Tom Scotto: No, I was looking for something to do, thanks John I appreciate that.

John Macgowan: Very welcome. Okay, so anything else that you would like to add on the subject before we end this?

Tom Scotto: I'd say again, try to figure out what the value is to your class and to your rider and I think that's what we always have to do wanted to doing anything event went to board designing our profile, profile we are doing at, it's like you know, what is this going to be fun, it just going meet their needs and I think whatever system we choose to use in the class whether it's a three zone or five zone or more I think as instructors we just need to look at our demographic and figure out what's really going to help them become more aware of what their body is doing and help them to target their fitness better. And if we do that as instructors I think we have had a home run.

John Macgowan: And we'll leave it with that, Tom Scotto state five cycling, cycling fusion and our master instructor here at ICI/PRO thank you again, I appreciate it.

Tom Scotto: John you are welcome.