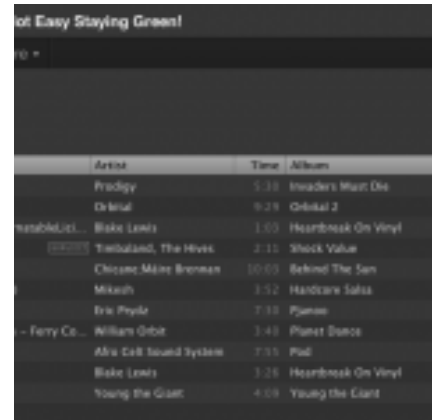




John McGowan: Hi and welcome to another Indoor Cycle Instructor Pro podcast. I am John McGowan your host and joining me is master instructor Cameron Chinatti. And today we are talking about functional threshold power and why it is important, really what it is and how you go about testing for it. Cameron welcome.

Cameron: Thank you John, good to be here.

John McGowan: Well this is fun. We keep talking about functional threshold power but as I was looking back I do know that we really have spent a lot of time describing, you know why you know what and how.



Cameron: Oh man I feel like now we need to make this like a four-parter because I can talk about this for days.

John McGowan: Okay. Well I am going to try and keep you limited to about twenty minutes if possible.

Cameron: Okay.

John McGowan: Alright. So first of all functional threshold power you know why is that important?

Cameron: In our world in Stages Indoor Cycling we look at this as being the key piece of information they're really I do not want to say there is no point to training with power without I, but it is kind of like training with something or trying to understand the language without having a primer for it. So in order to really make the information personal you need to assess where you are in your current state in order to set appropriate goals and then be able to achieve them. So the way I describe it in our trainings and the way we kind of introduce this, is I want you to think about this from the stand point of a personal trainer.

You know with any good personal trainer you know one of the first things that you are going to do with them is some form of intake and they are going to you know assess things like flexibility, core strength, I mean there are some of the more standardized tests like I sit and reach or a ramp test, I mean there is, there is all kinds of fun things that personal trainers can do with you based on what your basic desires are, but they do that so that with all your good training you can prove to yourself and prove that what you are doing and all the money you are spending on your personal trainer is paying off we want to see change and progress and...

John McGowan: You forgot the most important one.

Cameron: Which is what?

John McGowan: Your body fat percent.

Cameron: Your body fat right oh gosh my favorite.

John McGowan: Because that is what everybody is there for.

Cameron: Let's all bust out the calipers and yeah but and of course that is a good one too.

John McGowan: It's actually assessing where you are right now today.

Cameron: Right in the given moment and the funny thing is, is that well in group exercise we do not really do that, group exercise indoor cycling that has just never been a part of it and I, I feel and I know that there are a lot of components to indoor cycling to point out but to me like the key is actually being results driven in terms of our programming and orienting it towards that and there is a lot of trending information, so like there is a global trends report that comes out every year. I mean the consensus is in and it is that consumers want results driven programming and if you do not believe me then watch late night television and look for P90X and insanity and all these things that have a beginning where there's a work out, where they try to assess what is going on and you go oh I am miserable I cannot survive this is horrible, and then through some basic periodization ie muscle confusion according to the folks at P90X which is brilliant marketing, then you can see how far you have come.

And now I do not want people to think that I am necessarily I am talking about totally pre formatted things, I am really just referring to this initially assessment. So in our world that assessment comes in the form of some kind of functional threshold power benchmark, a test you can call it a test and assessment what have you and in its traditional sense a functional threshold test is usually a sixty minute time trial and I mentioned this a little bit in the podcast 205 that we did, but a sixty minute time trial is not exactly like oh yeah let us all go do a sixty minute time trial it is not.

John McGowan: I do not see, I do not see that it would be realistic for the average, forgive me but this is something that I struggle with is trying to take things that competitive athletes would use and try to incorporate them in our classes.

Cameron: Yeah I mean that a true like you know lets get straight like traditional FTP like that takes practice it takes stamina, really you do not get fantastic results when you are not in the competitive environment because that is required as well. So we know that is not practical and contra indicative for many of your participants, but we need some kind of way for assessing people. So there are various protocols out there for doing functional threshold power, or a functional threshold heart rate testing and we took one of the standards. So essentially we are looking for your best twenty minute window and we do this in the confines of an hour long ride so a typical class, the majority of it is really just soft peddling and warming up your body. So it really is you know it is a typical length ride but most of it is fairly easy however that twenty minute window which consists of two minutes to ramp up your efforts and then eighteen

minutes to sit and hold what you're capable of. That is the information that I am interested in and basically from that chunk of time really that eighteen minutes I want to know two things.

I want to know your average wattage output and your average heart rate and with those two pieces of information I really now have the key to building a zone structure for you. So power zones as well as heart rate zones and anyone can do this I mean it you don't necessarily have to follow the stages zoning methodology you can be a three zone to threshold person you just have to speak consistently with your language that is really the key to that. But I really feel strongly about this being important because trying to work off with peoples predicted math just does not give you accurate information, why not look at what someone is capable of in the moment right now and take that measurement and then compare it you know six weeks, twelve weeks down the road and see how they are doing.

And we have a lot of, some of our early facilities to adopt stages have run through functional threshold power testing as events which is how I prefer people doing it not just as a regular class on the schedule. Make this a special thing, they have run through between five and six cycles I think for some of them of FTP events and it's crazy people love it I did not think it would go over as well as it has but people have really been excited to see that with good training comes good progress. And it is also exciting to just know that wow over an hour I was able to output a higher average wattage or I was able to go further in terms of distance or you know my wattage was about the same but wow my heart rate was ten beats lower the whole time and that ride was less expensive to me, in terms of physical cost you know physiological cost.

So there is a lot of interesting stuff that you can do with it and really at the end of the day let us say that you have no interest in training for something, a lot of people that don't, they do not have any interest in going outside, they do not have any interest in training even for like an indoor or track one, but this little event gives them something to cheer for to see if all the hard work that they are putting in is paying off.

John McGowan: Essentially getting them to want to train.

Cameron: Yeah and it is, that is what I think is so cool I mean it really opens the door to a whole another world of, of exercise and I mentioned this in an international sales meeting recently where it really is my dream that ten years hopefully not that long but ten years fifteen years down the road we look back on this time in fitness and we all laugh because we go hey do you remember when people used to just show up to the gym and just workout, wasn't that silly like I can't believe we did that.

John McGowan: Entertainment based exercise.

Cameron: Yeah and I mean just even walking into the gym and going what should I do today, I will get on the electrical and read a magazine or I will just lift weights until I am tired. I think we are all going to finally realize that, that is better than nothing. We have the resources to do so much more, so that is kind of my future hope for them.

John McGowan: Exactly so we have kind of talked about why and you really talked about what okay so now what everybody has been waiting for how.

Cameron: How yeah.

John McGowan: How do you set this up how do you conduct the class?

Cameron: Sure so you know without giving away the entire farm because I, of course there is a lot more information behind it than what we can fit in to a twenty minute podcast but essentially this is run very similarly, I think you know a lot of your listeners might be familiar with the functional threshold heart rate, a ride or assessment, it is actually quite similar. So it really a lot of soft pedaling initially, we are trying to just open up the, we are trying to create blood vessel dilation. So we want to dust of the cobwebs as some people like to put it and make sure that blood can transfer to the big muscles with as little resistance as possible. So in order to do that we actually do a five minute so really we are talking a nice long extended warm up and then we do a five minute all out effort which seems kind of counter intuitive, why on earth would I do that prior to a test.

John McGowan: No we know anybody who races competitively knows that you need to do that.

Cameron: Yeah I mean you have too you've got to rev the engine before it will perform and I think you know, new listeners will get it but that is probably the scariest part for an average participant. Because after that five minutes mentally they start to panic a little bit and they go oh my gosh, I do not know that five minutes was so hard I am breathing hard I can feel it in my sternum you know I feel like my ribs are expanding, it just felt like too much. But your job is to coach them down out of that tree and get them to feel good and so that is why we have this ten minute section, and after that five minute portion that five minute all out effort in order for them to go as easy as they want to. And by the end of that ten minutes they start to feel really good again they start to, well they are physically ready but then more so they are mentally prepared to take on the actual and I try not to say the word test because I know it scares people, but that actual twenty minute section of information that we are concerned with.

So then we ramp up and you know the whole point of the ramp up is that I do not want to start the test with you, you know in the basement. So I want to build you to a place that feels like good working effort and one that you could sustain and that is when we begin. And so going back to the definition of, of FTP I mean it is that I told you that sixty minute time trial, but really we are looking to find out how hard can you work and stay aerobic. So because of that you know twenty minutes tends to take more of its energy from anaerobic sources right because towards the end you are working really hard and it starts to become a little less about oxygen and a little bit more about just putting the peddle to the mettle. So because of that we have to figure in a little bit of math in order to figure out what your sixty minute potential actually is. So from that twenty minute test we do just a very basic equation basically multiply by point 95 take five percent off the top and that is what gives me your personal FTP.

So that number represents what you could do sitting on a bike working hard for an hour, without actually having to go there. This is kind of going down another path but our app has a feature that can actually auto calculate this FTP information for you, which is really fun because there are some people that will never want to do the test because of the idea that it scares them, but we actually have kind of built an algorithm into the app itself that over time

becomes more and more accurate and actually becomes a pretty good indicator of what your functional threshold power is.

John McGowan: So because you are repeating it.

Cameron: Exactly because the more data we have the more accurate it will be.

John McGowan: Okay now again I am not used to your app but I see the picture, there's like a little marker in the speedometer so to speak that shows wattage is that, that marker is what set at your functional threshold power correct.

Cameron: There is two marks actually what John is referring to there is this, there is two tachometers that are on the screen and they are color coded that to match our zoning systems. So the red tick mark that you see is the point in our zoning system where you essentially cross over, so that, that tick mark that red mark will never change that is that same point. So if you are using our app while you were riding during an FTP test, if you had an accurate information the needle the white needle would be in line with the red tick mark and the screen would be glowing kind of this orangeish red color kind of indicating that you are you know in the middle of you lactate threshold zone.

Now like I mentioned this auto calculate feature is an option, so your first ride that you do with the app the needle is not going to move, because it is trying to get information about you and it takes it requires twenty minutes of data to at least come up with a figure. Now I am not going to lie at twenty minutes of information it is probably not going to be your actual FTP but the more you use it the more accurate it will get.

John McGowan: Cool alright so getting back to the class alright so you are scheduling this as an event.

Cameron: Yeah. I really subscribe to that I, the reason I think it is best to do it as an event is that when you give somebody a cool resource and particularly a cool class plan, sometime they get abused and that was my concern with this was that as instructors you are like yeah I love FTP, I love FTTHR this is great I am going to do this right on Monday morning. I really do not recommend doing that because it takes practice and I want to work my people up to it, so that when the event happens we actually get some good info out of it. And there are shorter assessments I know Doug Resho he, maybe we will have him talk in the future about doing the eight minute protocol, because there are shorter ones that you can do as well. But that, that the real true FTP I want people to know what is coming because a lot of people in a lot of places in this great nation they do not know how to sit in the saddle and one of the key components to doing this particular ride, is that for that assessment you need to do it seated, because we are trying to reduce the number of variables that could come into play.

John McGowan: Mm hm.

Cameron: And you know the affect of standing up and sitting down and standing up and sitting down has on your heart rate, so I want you to sit and work and for many folks sitting for twenty minutes is something they have never tried before, so even just working them up to the seat time component is very, very important. So for that reason I say make it an event, make it

something that is you know a calendar piece so everyone in your club knows it is coming and we have a lot of facilities that are becoming really successful at pulling this off and their members know you know like, oh hey it is you know every other month last week of the month there is going to be FTP events going all week. Because we know people have different schedules so offer some in the morning, offer some at night but I believe it should be at the discretion of the manager the indoor cycling manager whomever.

And then if you are in one of those unfortunate situations where you feel all alone in your island and nobody understands all the good information that you have, then you need to discipline yourself to do these you know once every six to twelve weeks and not pull it out every time you feel like throwing the hammer down.

John McGowan: Okay alright now people listening to this that have been paying attention I struggle with these long events that are six or twelve weeks apart.

Cameron: Mm hm.

John McGowan: Because they do not reflect our participants scheduling issues and that if you miss this one oh great I can take another one six or twelve weeks later. And so there is all this period of time where I am going to be you know I am trying to teach this class based on zones based on functional threshold power and yet I have got people in my class that have not had an opportunity to go to this okay. How do you accommodate them?

Cameron: Okay I will address this two different ways, one you know it is not in my ideal world it wouldn't just be you doing FTP, it would be the entire let's just say the entire last week of March we are going to offer twelve FTP events, twelve FTP classes. So you could make them you know part of the schedule you can make them not part of a schedule, but offer a lot of opportunities over the course of a week so that people can get in. The problem with making it in a class the scheduled class is then what happens when a newbie shows up that day, which very well might happen and you know I have had that happen before too, where you just might have to let them, now look this is something that we have been building up for and the good thing about the bike you are on is that you are totally in charge of how hard you are working. And when I indicate to people that they need to sit during this twenty minute section, you totally do not have to do that and just giving them opportunity.

I feel strongly about teaching the FTP right off the bike, that is a personal preference of mine but I really want to keep an eye on everybody and it can also help the person the new person. So maybe I do ride and I do other things so that person does not feel all alone. While I communicate what I want but to address it the other way, it is, it is important that you speak in multiple languages and part of what we discuss in the stages indoor cycling training is you cannot talk about wattage until people have a reference. You cannot talk about heart rate until people have a reference and really the only language that you can speak until people know what you mean is RPE. So RPE kind of becomes first in language queuing and we are scale, our RPE scale correlates quite well with the functional threshold heart rate scale and the functional threshold power scale, as long as it is used correctly.

So I depending on the user base I will always speak in terms of subjective queuing so things like at this point you should be able to breathe easily through your nose with your mouth

closed and then I will also speak in terms of our PE, hey if you can breathe with your mouth closed and just breathe through your nose we are talking an RPE of probably a two right now maybe a three, you are still fully under control. If I am talking about it from a functional thresholds heart rate stand point that reference point, we are talking about seventy percent of FTTHR. If I am talking about power for my folks that know what that means because they have done the assessment, you know I am talking about seventy five to seventy, to seventy five percent of their functional threshold power .

So my point in all this is that I can't just walk in and say hey everybody I need you all to hang at eighty two percent of FTP that might as well be me speaking in Chinese to some people. So I think to get around it and make sure that everyone feel inclusive, you need to speak multiple languages and that is one of the hardest skills about being an indoor cycling instructor.

John McGowan: Alright how about some option for an abbreviated assessment as part of your class, well here is where I am going this is that you know you have small studios like Cathy's Cycledelic alright and so she has kind of a real core group of people, I am at a big box where I am going to get random people coming in for whatever reason and I feel strongly that I have some way of, of getting them up to speed a little bit within the context of this class alright so how would, how would you help me accommodate those people?

Cameron: Sure well here is the thing I mean the FTP ride although we are looking for as much valid information as we can get it is still just a fun ride, so someone could show up and have no idea about what you are talking about and they are still getting an excellent workout.

John McGowan: No, I am sorry not that they are showing up to your assessment ride but the ride that comes the following week.

Cameron: Okay well you know this is where you have to tell people if you have been through this test then you know that I am looking for you to stay in lets say like the one that I use in the podcast 205. I say look this FTP allows you to have this magic number and that magic number is really designed so that you can establish your zones, your zones of power. So lets say I figured out that my FTP was two hundred watts and so that two hundred watts represents the middle of my lactate threshold or my zone for and again I am referring to stages indoor cycling zone methodology. Then I can build up all my other zones, so me as an individual participant I would know that oh when John tells me that today is an endurance class I know exactly what window of wattage I need to maintain in order to actually get the benefits of endurance.

So those are the people that have done FTP and they get it so they have got some insider knowledge. Your folks that don't you can say look today we are doing an endurance class this is representative of zone two, zone two should feel like this and I am going to give you a ride that is going to focus on the gains that you would, the benefits that you would gain by working on zone two. So you do what you are already doing you just know that some of your users have a little bit more insight as to how hard they personally need to work.

John McGowan: Okay is there a, well again it is where I struggle with this Cameron is the conceptual versus realities in a typical class and so I guess that my question is, is there an abbreviated functional threshold assessment that I can do as part of every class I teach?

Cameron: Sure, sure I would not go so far as doing one every time because then it is not really functional threshold power then it is just a measure of how you feel that day.

John McGowan: Okay.

Cameron: Which is okay and I think what we should do you know just seeing that there probably will be questions about this, we can have Doug discuss you know the Carmichael training system they, they talk a lot about an eight minute assessment. So we can definitely do an eight minute assessment but again it is still in the confines of an hour long class, so you cannot just have people show up and just work really hard and say great based on that number now let's do this for the rest of the ride. But I guess my the counterpoint go yours is that we have to think about how we are teaching already, right now a lot of what we teach is based off of you know the fun attributes of the class and you will have content that makes sense to you in your head but we all know that the biggest struggle of getting people to do work is to get them to do the work that you are asking of them. And the best way to do that is by having information that is personal to them but.

John McGowan: Exactly and that is exactly what I am getting at, is that how do I help them understand a number on their console if it is the first time that they have seen it?

Cameron: The very first ride I actually don't really care about wattage in the beginning and you know this from the orientation and observation ride, I am a little more concerned with them understanding the relationship and then getting the idea that work does not mean just spinning your legs around really fast. Likewise work does not mean you know slogging through the mud by peddling mashing the entire time with no velocity, so that is the first phase and they will see the benefits in that in terms of total caloric output as well but we are already talking like ten miles beyond how most of your participants are thinking about this.

John McGowan: Exactly.

Cameron: So and that is totally okay but I have taught, I have taught FTP, I have taught functional threshold heart rate rides where there are people in the room that have no idea of what I am talking about, like zero. None they have no idea however they come up to me afterwards and they were like that was great, that was really fun at the end of that ride I actually did more work than I typically do because the way you were motivating us to continue working. So they are still gaining something out of it. So maybe what we should do is you know, we will have Doug talk about the abbreviated protocols because you know eight minutes you can definitely throw that in more often there is less cost to it, but just know that you know just like everything the shorter the time frame the less accurate things are going to be so.

John McGowan: Right and so essentially what I am saying is that you know we are going to give up some accuracy but for the benefit of inclusion.

Cameron: Sure.

John McGowan: So that will help.

Cameron: And really I mean my answer to you John about like what do I do with somebody that has no idea, I mean that was kind of why we designed the auto calculate feature in the app and I know that not everybody has that. But that gives them after twenty minutes of riding that gives them a baseline of some sort so benefit there.

John McGowan: To be continued alright.

Cameron: To continued.

John McGowan: Okay so when you are listening to this my hope is that you are coming up with some questions that you can fire at Cameron because I am going to guess that I am not the only one that struggles a little bit with how we accommodate, again that's especially in a big box setting how we accommodate the variance between you know the cyclists that comes in versus the relatively new person who is intelligent, interested and so that we are again talking different languages and yet we are not boring the experienced people. So Cameron thank you I appreciate that and I hope this was of value to you those listening and until next time again we would love to know your questions and comments we will be able to address them in the future right.

Cameron: Of course we will.

John McGowan: Alright Cameron I appreciate it thank you.

Cameron: Thanks John.