

The Triathlon Summit - Hear how you can PR on your next Ironman

KERRY: Tonight's call is with Sergio. Sergio Borges is an elite level. He has dedicated the last 15 years to studying the science of triathlon training. During this time, he has competed in hundreds of races of all distances including 20 Ironman races around the world with a PR of 938 and over 50 Half-Ironmans with a PR of 412, qualifying for the Hawaiian Ironman World Championships 7 times. Sergio is also. He is also a level 3 USA Triathlon coach, a level 2 USA Cycling coach and head coach of the UCI Triathlon team. He coached the USA Elite Juniors and U23 at the world duathlon championships in Switzerland in 2003 and the U23 Tri-National Team in 2004. He also is a lecturer often at Coaching Level I and Level II Clinics for Coaches and writes for three sport magazines. So with that I'm going to welcome to the call Sergio. How's it going?

SERGIO: Very good, Kerry. How are you doing?

KERRY: I'm doing great, man. I'm doing very well. With that I'm going to go into the first question. I know your philosophy is different from the standard approach that many coaches out there take. Why don't you give us an overview of what you like to describe as The Method and how you go about your coaching.

SERGIO: Yeah, our philosophy is called The Method. It was created by Ironguide's head coach Marc Becker with a group of great coaches that includes Brett Sutton. They certainly have a great influence on his ideas. Mostly what we do differently than other training philosophies or coaches out there is that we pay very close attention to the hormone balance, making sure we balance the catabolic and anabolic effects of each workout. We also pay great attention to motor skills development. That's often overlooked by athletes and coaches. We don't put that much emphasis on endurance training. We believe that has been greatly abused by athletes, plateauing and getting pretty drained and tired.

Another thing that we do differently is we try to keep a high level of consistency for athletes. By working one system while the other is resting we allow athletes to recover quicker. So actually our training programs don't have any prescribed days off or recovery weeks because the athlete feels no need for days off. If they do need it they can take it. It's not the coaches that are going to be telling them when to rest. The recovery week is something that's also created by the traditional periodization of training. Again, it's a recovery imposed by a coach not by what the body of the athlete is responding to exercise.

So our training is what we call cyclic training, not periodization. So we repeat the cycles of the training. In our age group athletes the recovery

The Triathlon Summit - Hear how you can PR on your next Ironman

weeks we use whenever the circumstances for athletes, trips or busy with work or problem with the family or kids. We know we always have something going on so we let those weeks be their recovery weeks so they can keep a higher consistency in their training.

KERRY: Excellent. All right, that's very interesting. Your method that you have with Ironguides has delivered some great results for athletes out there. What is it specifically about your method that you think delivers such good results?

SERGIO: I think it's kind of what we're all looking for, that we can achieve with The Method our athletes they can train harder and recover quicker. I guess that's what we always want and are looking for. Some athletes end up going the wrong way to achieve that. But what we see is that that can be achieved by really knowing how to order and structure the workouts in the week so the athlete can recover from one workout and the other and keep the consistency high and train harder each time. Also, what happens is with the higher consistency a lot of the athletes race more often so we actually end up having a multi-peaking type of training because the athlete doesn't need necessarily to peak for one or two races, as the traditional periodization requires. Our athletes can peak five, six, seven, eight times a year. So all that first initial idea that we learned back in the days that our body can only peak twice or once, that was never contested before. We came strongly with different ideas and it's been proved. We have athletes that can race easily Daytona then Ironman West in Australia then in Malaysia. They never actually take time off. They keep training and can race in high levels in all the races if they want to. Not that we've told them they don't need to take any type of break but physically they feel that they're ready to keep going and training, which kind of goes back to more of the reality and the fun of sport.

The fun is to be able to race as much as we can and to feel good in all the races. At least that's how I got into the sport. I wanted to do as much racing as I could but I always want to do well in all the races, not only do well in one race a year.

KERRY: Oh yeah, definitely. Racing is good fun. That's why we all do it. What do you think are the top three keys to a good Ironman race?

SERGIO: What we tell our athletes to do is working what nobody actually does, mostly. It's one, build relative strength, you know, sport specific in gym. Again, everyone likes to get out of the door and go for a long, easy run, a long, easy bike ride or go in the pool and swim. Nobody is actually focusing on developing strength. As we know, the older we get the more we need as we lose muscle mass and strength. Maybe a few athletes out there that started the sport when they were younger, they have high levels

The Triathlon Summit - Hear how you can PR on your next Ironman

of testosterone and AGH. They have a lot of strength but we lose that very quickly after we're about 30 years old. So it does need to be always applied in the training. It should be part of the training every week, not only seasonal like most of the athletes do. They like to spend time in the weight room or doing some specific strength training just for like two or three months out of the year. By the time they're in the halfway point of their season their strength is much lower than what they started with in the year. So we keep that all year round so that athletes have that component every week in their training program. So that's one thing.

Another one that's also related to age but not doing too much is sport-specific move patterns. So that's happened very often. If you don't practice the skills of your sport you tend to lose it very quickly. A good example would be an elite swimmer. Even for an elite swimmer that's out of the pool for two or three weeks, when he gets back in the pool you hear from those guys, "Oh, I lost the feel for the water." That's something that we're talking about. Same with running. If you stay out of the track or doing speed work for two or three months doing base training, when you get back to the track and try to run you feel like you have no legs. You lose all of your coordination and your ability to fire the muscle properly and to execute the movement correctly. So that's another component that we also work all year round and every week in our training program.

The third is don't rely solely on endurance training. That's, I think, another key advice for the Ironman athlete out there. What we see is the athletes do way too much endurance training and long-distance training, long rides over five hours, long runs, very catabolic and they require a lot of recovery. What happens is they just drain their system and bring their testosterone levels all the way down and the recovery is so much slower. That's why when we were talking before about balancing catabolic and anabolic effects of the training, every time we have to do an endurance training we always kind of balance it with the type of workout that's going to help you to bring your hormones back to the balanced level again. So this will be my third tip for Ironman athletes, you don't need too much to race fast in the Ironman.

KERRY: Okay. One of the last things you were saying there is doing workouts to bring people's hormonal levels back up. Can you give examples of those?

SERGIO: Yeah. Let's use an example of long training because I just talked about it, Ironman athletes usually do. So a typical--

KERRY: One thing to throw in there, some people might not be familiar with what catabolic means, in terms of long-distance training and having that affect on the body. If you could just explain that too that would be awesome.

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SERGIO: Yeah. So let's use an example for 90 percent of us age-group athletes that have jobs and families. We usually use our weekends for our long-distance training. Let's say you do your long ride on Saturday and you do your running off the bike and then usually you do your long run on Sunday, right? That's probably what most of us do. So both the workouts are what we call catabolic which promotes a big damage on your muscle. It's a catabolic effect of damaging a muscle. What most of the people do to try to recover from that workout is do an easy workout on Monday. Usually if you pre-train your energy level is pretty low after the long training on the weekend. So the athletes usually wake up in the morning and the first thing they want to do is some easy jog or easy swim. That's just making it worse, in terms of recovery and rebuilding their hormonal balance.

What we do differently, when we talk about anabolic, we want to put a workout that creates an anabolic affect on your muscle and your systems. So this anabolic effect could be either to do a strength workout or to speed workout. Both have anabolic effects. So for example, our athletes, if they have that work on the weekend, a long ride on Saturday and a long run on Sunday, what we try to do is we either add fast, short swim workout on Sunday, after the long run, or if they don't have much time because they have to spend time with the family or for any other reason, what we do first thing Monday morning is we do strength work on the bike. Say for example you're going to ride on heavy resistance, between 40 and 50 RPM, for one minute on and one minute off. Something that won't be taxing but would help just enough to create that anabolic effect.

So basically if you see anabolic as a body builder. Body builders go to the gym and want to lift a heavy weight. What he's trying to do is create an anabolic effect, which builds muscle. Catabolic destroys muscle and then anabolic builds muscle back. So that's what we're trying to do. Of course endurance athletes, because of the type of exercise we do, we're never going to be gaining muscle. When I say that the first thing you have to think is you're going to get big and look like a body builder because we create this type of workout. But this never happens because we always use glycogen with so much training we do. So this is never going to happen. But that's basically one of the many ways that we use to balance some of the hormones. That would be one of the things that we do.

The other thing that we do would be with the energy system. One energy system is working, another one is resting. So we never make the mistake of working two energy systems back to back or in the same day that we see other athletes doing that all the time. So let's say one day you're working an endurance workout in the swimming we're going to use some type of workout to balance that endurance workout that would be either speed work or strength work either swim or bike. The very next day, if you did a hard speed workout on the run, we wouldn't be doing lactic

The Triathlon Summit - Hear how you can PR on your next Ironman

tolerance workout on the bike or the run, for example. Something like that. It would be overloading your muscles due to the speed work the day before. So it's one of the few details that we take into consideration when designing a training plan for an athlete.

KERRY: Very interesting. You've had a pretty long Ironman career yourself. What do you think are the keys to having a long, lasting Ironman career?

SERGIO: You know what's funny is that looking back and seeing the rest of it, I was actually lucky to be able to last so long and do so many races. I think if I knew more when I started my career I probably would be reaching a higher level than what I did in the past. At first I did the traditional training approach, in terms of training three or five hours a week, training mostly endurance. I think one of the reasons in 2005 I did my last race, I had already changed my training protocol but I didn't know enough about the hormone balances to be able to get more advantage out of my training. So I got to that point where I started losing that desire, the fun of the training just because it was like, "Oh, this is so draining every time, every weekend." We were out there with a five, six hour ride. And that was added to so many gadgets and so much equipment that we, as a triathlete, end up getting and relying on - GPS, heart rate monitors, power meter. Actually, I didn't realize that I was only being guided by the numbers. I was actually not free more to train, like when I started triathlon, over 15 years ago, having a better perception of effort because I didn't have anything else to tell me how my body was reacting to the moment or the exercise. So I guess there was a lot of things that involved.

I think an athlete that wants to have a long career needs to pay attention to those things. What's going to keep people going is just the recovery. It's funny how everyone always worries about muscle recovery but nobody actually talks about hormone recovery and that is the number one. If your legs are sore from a workout you can still wake up the next morning and go for a ride or for a run. Your legs are sore but you can still go. But if you wake up in the morning and you feel pretty drained, like really tired, that's characteristic of that catabolic effect that you have in your body. You know you're not going to do anything. You're just going to stay in bed. That's how your inconsistency in training starts and one thing just leads to the other.

But luckily in my case in 2000 I started kind of contesting and re-analyzing all the traditional periodization and I realized that it was way too based on too much volume and that was killing me so I started actually reducing my training volume. That helps and has been helping all my athletes. In 2003 I actually went full board and I wrote a method called "Inverted Periodization" where I was just promoting a totally inverted training periodization. So work speed and strength first and then add the

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volume at the end, closer to Ironman or closer to long-distance races. That helped. It's very similar to what The Method does. The difference is The Method pays greater attention to energy systems, one rests and one works, and hormone balance and also developing the motor skills. That's one thing that I didn't do in the past as well. I did some developing through the speed work but not with emphasis and didn't realize how much you lose it. It's one thing when you're 20 years old but it's another when you're 45.

So I think the longer career was just that wake up and change things around and this will be one of my biggest advice to athletes out there is that if what you're doing is not working or you've been plateaued for a while, it's time to change. Something needs to be changed otherwise you're just going to be doing the same thing over and over and over again. A great example of that is the Master Swimming workout. How many of you guys out there go to the Master Swimming workout every morning? You're going to find that swimming the same person that's been swimming in that lane for 10, 15 years. It hasn't gotten any faster. It hasn't gotten any slower. Including myself, back in the days. Right? I

KERRY: Yeah.

SERGIO: I mean, it's something that's not working. They've been doing something over and over and they're still there on that same lane, same interval. You can go away for five years and come back and you know that person is going to be there. And that could be one of your fellow athletes. That happened to me as well.

KERRY: All right, excellent. What do you believe are the key things that... Kona is seen as the pinnacle to a lot of people in their career. So what are the key things that you think that have been key in getting you to Kona? Your training techniques were a little different back then from what they probably would be today if you were still going at a high level. Basically, what are your thoughts on what are the keys to qualifying for big races such as Kona?

SERGIO: Kona is tricky now and it's just getting worse because everyone is getting faster and it's getting really competitive. I think one of the first things to do is pick the right race. That would be the first good advice. And be realistic with your strengths and weaknesses. If you know you're a big guy, muscle, 190 pounds, you're not probably going to choose to do Ironman Lanzarote that's freaking hot and very hilly and windy. So you know that your chances of qualifying against a fast, skinny, small Europeans is pretty slim. The number one would be trying to find the race that's going to fit your needs and your strengths. So that's the number one.

The second is train wisely and don't start training too early for Ironman

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racers because what you want for every single Ironman race is you have to get to the starting line fresh. That's one thing that I repeat over and over again. It doesn't matter how fit you are three months before the race. It only counts when you get there and step on the starting line. I see that happening, especially here in San Diego, which I would say is the mecca of the over-trained athlete thanks to the great weather that we have here. But it also bites you in the back because everyone is out there training every single day and just logging hours and hours of training. So you've got to be careful. Don't start your Ironman training too early.

And work on your weaknesses. It's so common. The weak swimmers don't like to swim so you don't see them in the water. They allow themselves to stay away from the pool for three, four weeks. That's over for your motor skills. If you're not a good swimmer to begin with and then you stay away from the pool for four weeks, that's like one step forward, two steps back.

Another mistake athletes do is to take way too long of a break during off season. The one thing about break is that not only complete break but the break where you're not going to be working these skills. So you don't need to be training, I'm not talking about volume, you can still do something that could be fun and different than the triathlon training, but something that could develop skills. If you're out there, let's say bodysurfing, you're working your speed and every time you have to surf, catch a wave, you're going to be working the speed, you're going to be working the motor skills and the swimming without having to be in the pool all day. If you're out there cross country skiing you'll be able to do some cross training that you can develop strength and some of the skills that can be used for triathlon as well. So it's about knowing what to do. When I have athletes going away for vacations, ski trips for example, see if they can find a pool. I'm not asking them to do a long workout, just get in the pool and do 20 25s focusing on the technique. That's a skill-oriented workout. It's not like training, you're only swimming 500 yards or so. Same if they're somewhere different where they don't have access to run. The most skilled sport that we have is the swimming first and the running second. I'm not so worried about biking because biking in triathlon, I'm not talking about cycling, but in triathlon in general, IT races, mostly related to strength. There's not that much skill involved in the triathlon bike racing. So I would ask some of the triathletes to do a treadmill workout and work on their high strike rate on the running, for example. Again, it doesn't need to be long, just like 10, 15 minutes would do the job. Just the basic things. Work on their skills and on their strength when they're off-season and just keep that balance. Again, as long as you're creative you can do that in all different ways. It doesn't need to be triathlons specifically. Athletes tend to either rest completely or just go out and do their ride and a 20-minute jog, that's only going to make them

The Triathlon Summit - Hear how you can PR on your next Ironman

slower. They're only focusing their mind on endurance training and they forget about what's important.

Now athletes should realize that endurance training starts when you're born. Your heart starts beating, that's endurance training. So the older you get the more endurance you have naturally, just because your heart's been beating for a longer. You've been developing aerobic endurance. But there are a lot of components that you lose, skills and strength. So that's the one our need to work. Even when you do your normal training, everything involves endurance training. You don't need to be so focused on endurance all the time. Even if you go out there and you're going to do a specific motor skill swimming workout that's going to be doing sets of 25s, for example. You do three easy ones fast. So every time you're swimming the easy ones you still add endurance to your training. You don't need to be out there swimming 2000 yards to develop endurance. That's kind of the mistake that's out there that people think.

Also that you need to develop separate endurance for each sport. But actually it's all combined, what you do in swim, bike and run, that's going to develop endurance overall. That's why you see athletes come from different sports and they can do well in triathlons. If they have a cycling or a running or swimming background but they haven't ever swam, run or biked in their life, they have only done their own sport, but they can still do well because they have such a great engine already developed. Triathletes usually don't believe that. They want to achieve that 100-mile ride every weekend, the 20-mile run. That's what brings them down usually.

KERRY: Yeah. Very interesting. So this is kind of like the question before. If someone comes up to you and says, "I want to PR at my Ironman." What are you going to do to help this happen?

SERGIO: Well the first thing I would do is just to look at the athlete and find what his weakness or strength is. That's one thing coaches out there don't pay much attention to really analyzing the athlete, see their body type, see their history, see their training, what they've done. Second would be you've got to be realistic in your goals. When I see someone come to me and say, "Well I want to qualify for Kona and my best Ironman so far is a 14--," we need to have realistic goals. Maybe we're talking about qualifying for Kona maybe in three or four years or even longer but you have to follow some strict guidelines of training that could involve diet, change of body type, developing skills that you're missing and stuff like that. That's one thing.

Number two is we have to have great focus on recovery. I think that's what I see. Again, I want to talk about most of the athletes that we see

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when they get to the races they're tired because they always have unrealistic training plans that never applies to their life. Someone that comes to me that works 40 hours a week, has a family, married with two kids, I can't have someone like that train 20 hours a week or 22 hours a week. I have to adjust the training to what they can do. You get way more out of a balanced training than the volume. If you have more volume and you can't recover from it, you're not going to get any gain out of the training. So basically you can only train as much as you can recover. That's very hard for athletes to understand. So that would be the second thing I would do with the athletes, make sure that the training I'm giving to them is realistic for their reality, for their life.

Third would be, let's develop what you're missing. Let's work on the skills you're missing. Let's work on the strength for you have or you've lost over the years. Only after that do we worry about building endurance for a specific Ironman race that you'd be doing. So this is very important to mention again that we need an athlete that is healthy, can recover and is happy with the training too. Frustration can also be very negative and stress also can be very negative. It all needs to be taken into consideration with the training. That's why we're so focused on balancing hormones, different tips for diet.

We have a different approach when we talk about taper and carb loading, all that. We actually don't believe in any of this type of nutrition facts or methods that people have been using out there. Basically what we want is for the athlete to be consistent and have the fun back of their workout. If they are recovering better and feeling stronger just start getting the fun of the training back. If every day they feel miserable, they wake up in the morning at five o'clock to train because they have that one hour before work but they feel like they want to stay in bed everyday they need to force themselves to go out there, you know that after a year or two they're not going to continue to do that kind of work. No one can take that for too long. If you always feel super tired and your life is miserable and you lose all that balance, added to your family obligations and stuff like that, that's very important.

So one, get to know the athletes and what the athlete can do. Second is make sure it's balanced with the life. You can only train them as much as they can rest. And third is you've got to work on their weaknesses. Probably for 99 percent of the people that involves strengthening skills that need to be developed and need to continue development. So that would be the three key concepts that we tell the athletes to do to qualify.

KERRY: All right. Very interesting. Good stuff. This is kind of going off some of the same stuff but why don't you just give us the top three mistakes you see Ironman athletes making.

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SERGIO: Yeah, that's a good one. I guess the single-minded folks and aerobic conditioning is very important. I think that's number one. Second I'd say it's inappropriate training volume. So what happens is people start adding volume to training. They see the rapid results of improvement but then they kind of get plateaued and end up slowing down. I think the third mistake is obsession with the data and the loss of intuition for their body. That's very important. Now everyone is so obsessed with the data and they don't know what their body is trying to tell them when they workout.

So for example, I wrote an article for the website recently talking about [indecipherable] performance. When I was asking the athletes how many times they looked at the heart rate monitor when they go out on the run, let's say in a 45 minute run, "How many times do you look on your watch?" "I don't know, 300, 400 times." "And how many times do you focus on your form when you're out on the run?" "One or two. Maybe three." "How much do you think that number interferes with your training that day?" That's another thing. You're running out there, you have your heart rate monitor on, you look at your watch. You look at the watch every 30 seconds or a minute. You're not focusing on the form at one point. You're not focusing on how efficient your strike rate is when you're running. Then, if the number you're looking at is not what you're expecting, your subconscious is going to start working against you. It sends signals back to your body telling your body how to feel according to the reading. So basically you're being guided by the numbers not how your body feels. That I've seen happen to myself before with either the power meter or the heart rate monitor or whatever is out there that I've used in the past. That's what happens is that my training changed depending on the number but I never actually changed training based on how my body was reacting to the training. The more you do that the more you lose the feeling of your body. You don't know how your body is reacting any more. All you know is that it's on one, it's on two, 120 or 130 beats per minute, but you don't know if you're fatigued. You don't know how your legs are feeling. You don't know how your breathing is going at that moment or how efficient you are. That's, I think, what people lack now the most. They don't know how to read the signs of their body so they don't know how to train by perception anymore. Everyone is trained by numbers. I have an athlete that would come on the group run and forget his thing, whatever he was using, and he went back home. He didn't run. It got to the point that the athlete didn't even run. That's when I started paying attention to those details. I think that's way too controlling.

Or, how many people do you know that come home and they want to download all their data on the computer? They spend like an hour trying to analyze the data that's actually not going to tell them much. If it's good they keep it. If it's not what they're expecting they just delete it. But

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basically they're wasting an extra hour a day. Most of us don't have that time to waste. They could be out there training or sleeping or enjoying their family or something else. But they're in front of the computer trying to analyze why their heart rate was 120 or their power was 200 watts on that hill instead of 180 that they were expecting based on the lactate test they did a month before.

You know, the thing is, you're never going to find an answer. As a coach what we do is we always try to find an answer that we don't have when the athletes come to us like, "I don't know why when I was running my heart rate was so low," or "my heart rate was so high." There's so many reasons why your body is reacting. You don't know the athlete enough to know what's going on to be able to analyze every single detail. You don't know if he had a fight with his wife the night before, if he lost his job, or if he drank a little bit too much the night before. There's so many variables that could change the way the body reacts that could be shown different ways to those gadgets. We're all trying to find an explanation that we actually don't have. It would be so much easier that athletes come back to you instead... They download their data on the computer saying, "I did the five-mile run. My heart rate was 130 to 140 and my speed was a 9-minute mile." It would be so much better if you see the athlete giving to you is, "On this one I felt great. My body was very light. My recovery was quick and it was a very effortless run." That feedback is way more important than 120, 130 heart rate or the speed for that day. Really that doesn't matter because you never know what the level of fatigue in the athlete was that day or not. Most important to see is the level of enjoyment the athlete has on that day. It's way more important than knowing what their heart rate is. "How much fun did you have in the workout today?" That's a great example of how the body is reacting, how the athlete is reacting to the training. If the athlete is pretty bummed out or very fatigued, you know they're not going to say they're having much fun training. That's one of the signs as a coach you can use to know what's going on with your athlete.

KERRY: All right. Good deal. The last question we've got right here is, how do you judge pacing for an Ironman?

SERGIO: That is a great question. It goes a little bit back to what we were talking about. A lot of people out there they are all guided by their heart rates and power meters and GPS and stuff like that. You know, as an athlete, and I know that how many times whatever you have played with didn't work or whenever you see the number it doesn't work. One of the things that happened with me was I was doing Ironman Canada one year and I got out of the water, my heart rate was really high. I got on the bike and was like, whoa, my heart rate is really high. I was feeling great. My legs were fine. My breathing was perfect. My heart rate was high. I didn't know what it

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was. So riding, riding. People were going by me. I see some friends and they say, "Are you okay?" I was like, "Yeah, I feel fine but my heart beat is like 15 beats higher than what I expect it to be." So after two hours of riding I just said, "Screw it. I'm just going to continue my race otherwise it's just going to be here forever." So I started riding faster and my heart rate started dropping. I have no idea what happened but at that moment I realized that I can't rely on those numbers anymore because that's not telling me how my body is feeling.

So going back to Ironman pacing, one thing that athletes need to understand is they need to know what base feels like, more than anything else. Even especially when you taper, you know, your heart rate and the number is going to be totally different. You need to know what you can do by reading the signs of the body. Again, you need to be able to be out there training and promote effort similar to what you're going to be racing to, what that feels like and then you know what to do on race day.

One of the mistakes athletes do is that they feel so fit during the race day and add it to the long, one of the mistakes being a long taper, they start out way too fast. The unskilled swimmers usually swim too fast and leave a lot of energy out in the swim and then don't realize that there's a huge carry-over that you end up feeling that extra fatigue that you end up feeling in the second half of the run. Or on the bike, like in Kona, everyone is excited going up Pihlani. There's people cheering, everyone is just flying by and they leave all their energy out there right in the beginning. We'll talk about not only energy but how much more glycogen you using at that point where you're going hard or whatever, like say above your lactate tolerance or threshold. You get to that point where you're close to hyperventilation on the race and you don't realize that you have another 100 miles to go. The same thing happens on the run.

I see a lot of the mistakes happening to people that are way glued on their heart rate monitors. All the greatest racers and athletes out there, including coaches like Dave Scott, all those guys that promote heart rate monitors, those guys never race with any data. Those guys never even have biking meters on their bikes or heart rate monitors. Those guys race purely on fuel. It makes me go, "You tell people to use something that you don't personally. So you are assuming that the athlete has the ability to read the signs of their body like you but they don't because they're so glued in their numbers." So I guess most of the Ironman athletes out there, you need to learn how read the signs of the body and to know what your body is doing. There's many ways to do that. You need to get to the point where if you go out on an easy run you know what easy is. The more you do that the more you learn about the body, you can put on a heart rate monitor and you know, I bet that you'd be maybe two or three beats off, whatever the number is, because you start having that feeling. I think

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Christie Watson said that a few times. She's like, "I know what easy is. I know what moderate is and I know what hard is. That's all I need to know." When they tell me to go hard I go hard and I know what hard feels like. So when she goes to race, someone like her will know exactly how to pace herself because she knows exactly what it is by feeling the body not a bunch of numbers. It makes it much easier for the athlete to do that too, as well. Before we used to deal with five, six different training zones and we never know what they are or what we are. We don't even know what kind of training zone. We got too complicated. The athletes can't even do that. They're losing the fun of the sport because all they do is follow some prescribed plan that was designed to tell them how their body is feeling instead of doing the other way around.

When we design our training programs and we have our progressions... I had this question the other day. "When do I get the next progression of my training?" I was like, "I don't know. You tell me." Because the way we work is that based on the progression of the athlete we decide if you're going to do any changes in the training or not. The athlete could be doing and repeating the same week of training, exactly the same workouts, for eight or nine weeks if they're improving and getting stronger. My fiancé is repeating the same training that I gave to her for 12 weeks right now. I ask her, "How are you feeling? Do you think you've reached a plateau or we need to do any changes?" She's like, "Well, no. I just get faster and stronger every week." So I was like, "Well, if it's working I'm not going to change it." So that's kind of what you need to have in mind. You don't always need to change it. I guess we don't need to change the training every week just to make it effective. Effective is whatever makes you better.

We have cases and cases of athletes that wanted to improve their swim. There's a story of a professional athlete that was coached by Brettson [?] back in the days and he was a pretty average swimmer. He wanted to be an I2 athlete but his swim, 1500 meters, was only 25 minutes. For 6 months he only swam 25 yards twice a day, nothing longer than that. He was only working his skills. By the end of 6 months he dropped his swim time from 25 to 18 minutes. He never worried about endurance training, he never worried about anything else but developing motor skills.

The way we see skill is like martial arts. If you go do karate, you repeat the same punch 1,000 times. You master it. You've got to do the punch and repeat it 1,000 times until you master that skill. One thing that we do too in martial arts that should be applied the same in the triathlon, you're not going to learn the second punch or kick until you master the first one. It kind of should be the same way. One of my athletes said, "I wanted to do 4,000 yard straight continuous, just to make sure I can swim the distance for Ironman." I was like, "Well, until you get there you need to be

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able to develop the proper motor skills otherwise you're going to swim 50 yards or 100 and then after that everything is going to be horrendous because your strokes are going to fall apart. So the quality of the training is going to be so low it's not going to be worth it. Do you have any idea how much 4,000 yards is going to take out of you today compared to 6 months down the line if you work on your skills?" So that's what we're talking about. Don't try to jump the gun until you've learned the proper skills. Sometimes when we see athletes we ask them to repeat that same workout for 12 weeks until they've mastered that workout. So they know they're very efficient, very economic. They're moving the way we want them to and then they go to the next level. That's how we work with our athletes. You're not going to add volume until you have mastered the skills and created strength. That's what we need, before anything else.

You know, most of humans are endurance freaks anyway. You can go out there and finish a marathon tomorrow, even if you had to walk a little bit, but you know you could finish with running once a week. It's humanly possible to do that. What's going to make you slower is lack of skill and muscle strength.

KERRY: All right, excellent. People can find you at Ironguides, right?

SERGIO: Yeah. You can find all the information about our training. We also have an eBook that we call "Triathlon Secrets" that tells a lot about the way we think of training and why we're different. We have very interesting articles at our website as well, from the new aspects of nutrition, the different taper, talk about the difference between periodization, the cyclic training that we do and many other very interesting articles. If you guys are looking to read something different and interesting go to our website our we have a lot of stuff written out there on Xstride and Triathlete Magazine and many other magazines out there. If you're looking to read something different, controversial, that's been working, just check our stuff online and you'll find something good to read, especially if you're bored of reading the same thing over and over again.

KERRY: [Laughs] All right. We've got a few questions out there from some of the people listening on the webcast. You want to try and answer a few?

SERGIO: Yeah.

KERRY: All right. Tom asks the first question here. He says, "Do you recommend getting rid of the garments and the power meters and just train and race for feeling then?"

SERGIO: Yes. That's the number one. Yes, bring the fun back to the sport. Get out there and just have fun. Of course you need to know what to do but it

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doesn't need to be precisely what's out there. It's amazing that we're offering the way of training that's going against most of the coaches that encourage people to spend money, tons of money, on all this equipment, but we actually want you to spend, instead of money, time understanding your body more than anything else. We're not against the equipment. I think it can be used as a great tool After a workout it can analyze some of the performance but that should never guide your training.

KERRY: All right, excellent. Next we've got Jennifer Myer from St. Louis. She's asking, "What kind of testing do you do to check hormone levels to monitor training?"

SERGIO: That's something that's not possible to be doing. There are some blood tests we can do out there but we don't actually really care about that. It's not about how much you're gaining or losing, in terms of hormones. What we want is to help you to balance that through nutrition and training. We know certain types of training promote certain types of hormone effects on your body. It's the same with nutrition. We know if you eat a lot of sugar that's going to make the pancreas produce more insulin. High insulin is going to increase cortisol and many other facts that could happen in the body. So what we focus on is that we know the effects of the hormones in the body and we try to kind of balance that effect. How much really doesn't matter. But we know it happens. We know if you go out there and run an hour and a half we know how much, strong your muscles, catabolic effect, strong muscles. We want to kind of balance that effect. There is some research out there that actually has tested that. I actually have that here. [pause] Go ahead. I'll look for it while you ask the next.

KERRY: We'll take your word for it. That's fine man, you're good. Pam from Katoria, South Africa asks, "We're starting a new swimming program training triathletes and open-water swimmers. With Ironman South Africa two and a half months away, what is the best advice we can give first-timers and should we work on changing technique now or wait until after Ironman 2009 and get technique right for 2010? Thanks."

SERGIO: Great question. Well, it's certainly close. That's a great question because everyone makes the mistake of focusing way too much on the technique when they're only swimming two or three times a week for about 2000. So by the time they get to the race they might have improved their technique but they don't have the strength and endurance enough for the distance so they're not going to be doing any good for them. So I would say if you have a two and a half months to the race one thing I would do is to improve strength. Ask your athletes to swim with small-size bells so it can increase strength little by little, brick by brick, without overloading their shoulders or changing their stroke rate. And try to break the workouts from the unskilled swimmers. Make sure they don't swim anything longer

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than 50. So 25s and 50 until they start affecting their skills. That, with the strength, is going to make them swim much better. After that talk about 2010. Of course they're still going to have to work on motor skills, for those unskilled athletes, but then would be the time to try to polish their stroke a little bit. Right now they don't have enough time to do that and what they need is to be able to complete the distance and get out of the water fresh ready for the bike and run. That's very important. At this point speed, how fast they swim, is not relevant if that's going to make them run much slower at the end. If you're talking about Ironman or a 7.3 race, it's a very long race. So even if you haven't improved anything on the swim but you're much fresher off the swim getting to the bike you know you're going to bike stronger and run stronger. People underestimate the importance of swim training, that we actually focus a lot. We want to make sure the athlete's not carrying their fatigue over to the bike and to the run as much.

KERRY: Excellent. All right. We're going to do one more question here. This one is from Ted in Sunnyvale. He's got two questions. We'll go with the second one. He wants to know how to prevent nutrition problems during an Ironman. I know you were saying that your nutritional approach is different from a lot of the stuff out there. Why don't you tell us a little bit about that.

SERGIO: Okay. One thing you have to realize about nutrition in athletes is that athletes don't realize the amount of stress they get in the race. I assume she's talking more about long-distance races.

KERRY: Yeah, I'm assuming Ironman because the other question was on running Ironman.

SERGIO: So Ironman, basically what happens is that the longer the race gets the more blood you have being focused in the areas that are being worked. In the case of say the bike it would be in the legs, and the run. So you have very little amount of blood in your GI and your stomach so you should avoid any food or anything that is going to give you extra work for your stomach to digest. That's one thing you have to pay attention to. Second is, you've got to be careful with athletes out there that tend to drink concentrated maltodextrin or carbo drinks out there. They forgot to keep the hydration concentration of their drink. They're over-concentrated drinks but they don't take enough water to kind of balance that. So you can end up bloated and having all that water inside your body not being absorbed, not even the calories or the water, the hydration being absorbed. So that needs to be taken into consideration. I see that happening many times.

One thing in particular, I think, is that all the gels and bars and all that

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stuff that is out there is so much chemical crap that's out there that we're eating. If you think about the human body, we're not made to be processing all this chemicals the way we've been doing it. So if you try to go more into the natural food when you're doing Ironman. It's funny because I tell my athletes that back in the days when I started doing Ironman we used to eat a baked potato on the bike and bananas and oranges on the run and bananas and that was it. I never, ever had stomach problems back then. I only started having stomach problems when power bars, gels and all that stuff came onboard. That's when all my problems started. And I believe that. Your body knows how to read food much better than chemicals. So if you eat a banana your body will digest it much better than a power bar. There's no doubt. Real food compared to processed food. So if you can try to get some of your food that you have an Ironman based on food more than just gels or bars, it might help you a little bit too. So this would be our approach during Ironman training.

We have a pretty different approach when you talk about taper for Ironman food and we do pay attention to the fact that we're sure doing taper. One example is one of our athletes and coach, he was a professional athlete in the past, he's a diabetic. He came from 30 hours average a week training to the taper. So he was in his week and a half, two-week taper before Ironman and he noticed that he had to inject three times more insulin than he usually did on his normal training route. This is only by cutting down the training volume intensity, not even considering nutrition. So that gives an idea how much more our pancreas has to do to balance all those facts. It has to deal with stress, anxiety and all that. So just to throw some ideas out there. If you know your body is going to be producing three times more insulin during that phase just by training down and you're going to be adding more sugar, a lot of carbohydrates, carbo-loading during that week, what do you think you're doing to your body? Your body may be producing maybe five times more insulin. So increasing insulin levels that high, imagine what happens with cortisol. That's also going to affect your HGA production. So that affects your recovery. So all that is a kind of snowball effect that is purely caused by anxiety of the training and sugar. So it makes you wonder how effective carbo-loading is, especially when you're talking about a race where we have to be replenishing glycogen anyway because the race is so long. So I would ask the listeners to do this test. One day before one of your longer, key workouts that you have just try to eat a lean protein, good vegetables and a good quality fat, olive oil or flaxseed oil. And the other week it the same training conditions and situations just eat the full bowl of pasta and let me know how you feel when you wake up the next day ready for your workout. You'll see the difference in recovery. You'll see the difference in energy levels. And it's all hormone effects that cause that by nutrition. We know what happens but you guys out there should try that and then start thinking twice about carbo-loading.

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We've worked with so many athletes with diabetes and we learned so much because those guys, if they mess up they die, due to nutrition pretty much. So there's no one better than them to tell exactly how their body reacts to the accessibility of glycogen. That's what we're talking about as an endurance athlete, how much glycogen we need and how to do it. So we have used the expertise for the coaching we need and our athletes understand more about that and we start realizing all the old theories, they're not that great the way they've been talking. So that's very interesting.

KERRY: Yeah. Awesome. Well Sergio, that was awesome information for everyone out there. Again, how can people get a hold of you if they want to contact you or get your coaching?

SERGIO: They can look at our website www.ironguides.net. Or they can shoot me an email at Sergio@ironguides.net and I'll be more than happy to answer your questions.

KERRY: Good deal. Sergio, thank you so much for coming on tonight.

SERGIO: And I promise I'll find that research. I'm trying to look. I may have it here somewhere. Please send me an email and I'll be sending you the research that tells precisely what you want to know about how much of the hormones and the numbers and variation, etc.

KERRY: Awesome. Good stuff. If you want you can email that to me and I can forward it to everyone too.

SERGIO: Okay, great.

KERRY: Yeah.