

The Triathlon Summit - Unlock the Secrets to Race Day Nutrition

KERRY: We're going to start tonight's Triathlon Summit call with Michael Folan. Michael has worked with thousands of amateur and professional athletes. He's one of the leading authorities of practical sports nutrition. His client list ranges from a who's who of triathlon professionals, Tour de France riders, elite and back of the pack amateurs. INFINIT, which is Michael's company that he's speaking with tonight, currently works with over a hundred different coaches. He uses a basic, simple approach that enables coaches and athletes to be consistent with their nutrition and perform better in training and on race day. With that I'm going to welcome Michael Folan to the call. How are you doing Mike?

MICHAEL: I'm great, man. Thanks for having me. I appreciate it.

KERRY: All right. Good deal. Glad to have you here. First off, let's just start with this question. What are the most common mistakes you see athletes make with their nutrition? It's really interesting because I deal with a lot of professionals and the lack of expertise when it comes to nutrition is staggering to me sometimes. When age-groupers think, "I really don't know what's going on with this," it's not just the age-groupers. It's all the way up to names that you would very well recognize that won Ironman races that just really don't know what's going on. I think as a result of that what happens is a lot of people really try and overcomplicate things. They try and do way too much. That's probably the single biggest thing that I see age-groupers mistakes made. They just try and do too much. Your body can do very well and you can be very simple with your nutrition and I think you perform much better on a consistent basis from race to race and training session to training session.

If I had to say one I'd say it's probably overcomplicating. Your typical triathlete is a type A, obsessive-compulsive. That is the MO for the triathlete. If they walk into a bar and it's all-you-can-drink for a buck, "I'll take two dollars worth." That's kind of the attitude, if one is good five has got to be better. That's really not the case. Your body actually reacts and functions better simply. Most of my clients I tell less is better most of the time. So that's probably the biggest one I see out there.

KERRY: Cool. Why don't you tell us why you started INFINIT.

MICHAEL: I've been racing since the late 80s. I did really hard Ironman racing from the mid-90s. I did ten Ironman races, raced at Kona a couple of times. What ends up happening is that we were mixing our own concoctions. We were taking some Gatorade for flavor. We'd use CarboPro to get the bulk calories. We'd add salt and protein. Take NoDoze for caffeine. It was difficult to get it to taste right consistently. It was just difficult to manage.

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So after a while a buddy of mine, we were actually on a flight down to Hawaii to race, I forget when it was but it was early 2000. We had an idea which was, "Hey, there's a business model here that if we can give athletes a platform where they can custom-make their own sport nutrition, make it taste the level they want, get the right amount of calories, the right amount of salt and really simplify the whole nutrition equation, there's a business model. I think we can do well with it." That's where it started.

I met with some guys. I actually met with Joe Friel and Dirk Friel down in Kona at Starbucks and told them my idea. He said, "It's a brilliant idea. I can't believe nobody has done it already." So after that meeting we kind of knew that we were on to something. I was walking ten feet off the ground coming off of that one. So it started from there.

We built a website. It was pretty rudimentary at first. It's gotten a very devoted client base. Our customers are awesome. We have such enthusiastic people. They love the product and the idea. They really like and are attracted to the fact that they can make it the way they want, simplify it and make it taste exactly how they want.

So that's how it started. It's developed from that point now where we're actually producing out of the United States, Canada, Europe, Australia and we're about ready to launch Japan and China here, probably in the next couple of months. We're not huge by any stretch of the imagination, but the idea and the concept has been really very well received in the athletic community, all the way from triathletes to mountain bikers. We've worked with Chris Eves [?], a seven-time world champion. The guys who tour California are using the stuff. We worked with Danica Patrick for a while. It's been across the range. It's been really fun for me.

KERRY: Good deal. So how can people have a good day using nutrition, in terms of racing?

MICHAEL: Well, there's a couple of tenants. I kind of talk globally. I'll talk some specific but everybody has got their product that they like. I think our product is the best. There's certain things that you need to look at when it comes to nutrition. First and foremost, whatever product you're using out there you really want to be a label-reader. Multiple carbohydrates is the key to getting as many calories in your system as you can.

The way it works is that you have certain receptors inside of your gut that are pulling out certain types of carbohydrates. If you're only running, for example, maltodextrin -- that could be CarboPro or Hammer or some of the other companies that are just using a singular carbohydrate source -- you can absorb roughly about 240 calories an hour, that's max. That typically is not enough for most guys. That's the reason why people using

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CarboPro or Hammer, they kind of feel flat towards the end of their workouts. That's because typically you're at a calorie deficit and not absorbing enough calories.

The products that are the quality products out there -- that's PowerBar, INFINIT, there are some other ones, Intervit is another one -- they're running multiple carbs. So instead of being capped at 240 calories an hour you actually can absorb 320 to 350 calories an hour because you're utilizing all those receptors inside of your gut. That's a big key, when you talk about nutrition, that's the first component that I would look at. Whatever sports drink you're using out there make sure it's got multiple carbohydrate sources.

A key strategy is to be simple. My view is that it's much easier to have liquid-based nutrition. That goes for sprint racing all the way through 24-hour mountain bike races and Ironman racing. If you can have a liquid-based nutrition it's easier to gauge how many calories you're taking per hour. Typically you don't take too little and you don't take too much. You can pretty much nail it to the calorie. It's difficult to manage drinks, gels, bars, salt pills, over a long period of time. At a certain part of the day you're going to do too much. You don't want to have your gut be too full because what happens is it's diverting blood there, you start to digest. You don't want that. What you want is basically the liquid or whatever to get into your stomach, have it be not too dense and then just have it be able to pass right out. So that's a second component. Whatever race strategy you've got as far as nutrition goes, be simple, repeatable and generally less is better. So that's another key.

The other component is that there's a property -- this is a little bit technical -- but there's a property called osmolality, which is a density property. Whatever product you're using you don't want it to be too dense, meaning that it's got too many particles per cubic centimeter. Your body will react to it very much like it would be just if you're eating a double cheeseburger. It's going to divert blood to your gut and it's not what you want.

You want the solution to be what's called isotonic. Gatorade talks about that a lot. What that means is that an isotonic solution goes into your gut and passes right out into your system. Your body doesn't really have to process it that much. When you're using liquids typically you can get an isotonic solution going into your system, move right out and you don't have any stomach problems, cramping, bloating, gas and all the fun things that we've all done out there on race day.

To me those are probably the three things. You want multiple carbohydrates. You want your solution to be isotonic so you don't have

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any stomach problems. You want to keep it simple. I'm a firm believer in liquid-based nutrition. I see these guys with 14 PowerBar pieces on their top tubes and 15 gels. You just laugh. There's much simpler ways to handle nutrition. At the end of the day it's sugar and salt and that's it. That's what your body is looking for - calories, electrolytes and fluid. You don't need to make it that complicated.

KERRY: All right, good deal. So what's a good way for people to figure out what works for them on race day?

MICHAEL: That's a great question. A couple of just global things that I wish athletes did better. Number one, do a sweat-rate test on yourself. The way that you do that is essentially before you workout and weigh yourself naked. Do your workout, come back, empty your bladder again, weigh yourself. Then you take the amount of weight that you lost, add in the amount that you drank during the workout and divide by the number of hours. What that's going to tell you is, "Okay, I know that I sweat 24 ounces an hour." That's a target that we all should be aware of. Ninety-five percent of the people I talk to, when I ask them what their sweat-rate is, they have no clue. They cramp sometimes or they get dehydrated -- if you get dehydrated you lose a ton of watts on the bike. So it's really important to have an idea of how much I sweat on an hourly basis.

That's going to be somewhat temperature-dependant, meaning that if you're going to be down in Arizona in September, doing a race, you know it's going to be hot. If you're doing Gulf Coast, if you're doing the 70.3 down there, you know it's going to be hot so you need to adjust a little bit. That's a key component. Everybody should know how much they're sweating on an hourly basis because that's going to tell you how much you need to drink.

Second thing I think is a big one is just having a good handle on how many calories you should be taking per hour. I know before I started the business I didn't have any idea, I'd wing it. That's really not an efficient way to go through your race day. A good starting point for just about anybody is to figure out your lean body weight. In other words, if I'm a 150-pound guy and I've got 10 percent body fat that means that I've got 135 pounds lean body weight. Take that 135 pounds lean and multiply that times 2, which is 270. That's a target. That's where I should be. If I'm a 100-pound female and I'm 15 percent, 85 times 2, that's 170 calories. That's a pretty true number that is an excellent starting point. You can say, "I know now that I need to be targeting 265 calories an hour." You might adjust up or down a little bit. That's a great starting point.

Those are probably the two that I would say - fluid-rate loss and knowing what your sweat-rate is, know how much you should be drinking and also

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know how many calories you should be taking per hour. I think those are the two big ones.

KERRY: Right. If you get that ratio right do you still find that there's any sloshing going around in your stomach where you feel too full or anything like that?

MICHAEL: No. Again, that all ties back to that osmoality question. If you're drinking a solution that is isotonic, you shouldn't get any sloshing at all. It's got to have some salt in it. The basic reason why you have salt in a drink, number one, is to keep it from being too sweet. The other part is that salt is a transporter. It's just moving salt out from your gut into your system where it can be used. So salt is a component that takes that water out. If you're just drinking pure water over a long day, that's not a good thing. Too much water is not a good thing. That's why people get the hypernatremia stuff. It's almost worse to get too much water as opposed to not enough salt. But that sloshing that you're talking about generally is coming from drinking something that's not isotonic or you're getting too much stuff in your gut. That's where it's not processing. Your body is trying to divert the blood to it, it's just sloshing around. It's like trying to eat mashed potatoes and gravy while you're working out. It just doesn't work very well.

KERRY: All right. So what are the race-day nutritional differences for different lengths of races, ranging from a sprint to an Ironman?

MICHAEL: Very different. A sprint race is generally close to anaerobic. You're right at 90 percent of your AT, anaerobic threshold, which means that you're going hard. Anything less than a two-hour race you really don't need much. You need some hydration so you don't get dehydrated and a little bit of calories and electrolyte in there. It should be much lighter so you don't have any stomach problems whatsoever. Really, when you hit the starting line, you don't need many more calories than what you've got stored already in your liver. The only thing you're trying to do is stay hydrated. You don't want to get in your body's way. That's kind of the main thing.

A couple of things I do like for the INFINIT product, what we can actually do is adjust the carbohydrate for them and we can decrease the amount of maltodextrin. Maltodextrin is a slower-burning carbohydrate. Typically we use that for longer-distance racing. If you move the carbohydrate-blend slider down you increase the amount of glucose. Glucose just burns instantly and it's a great carbohydrate for sprint-distance racing. So that's one. Typically sprint races, lower carbohydrate drinks and nutrition for sprints are less calories, solid amount of electrolytes and the other component I love is caffeine. I'm a four-espresso-a-day kind of guy

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anyway. [Laughter] Truly, that's no exaggeration. Caffeine is one of the few legal things out there that will help you tap some fat stores. It is definitely a stimulant. I really like caffeine for sprint racing.

When you transition into more half Ironman that's when nutrition really is a critical component. When you go back to the sweat-rate target and you go back to the amount of calories you should be consuming an hour, that's when those numbers really do come into play. If you're a six-hour, half Ironman person you really need to be getting at least two calories per pound of body mass. For most 175-pound males that's 280 to 300 calories. For your typical 120 to 135-pound female that's 240-ish kind of range. That's when it gets critical.

Then when you go to Ironman racing, the third component is you get hungry. If you're drinking Gatorade or one of the straight-carbohydrate drinks, I can't do it. I'm ready to chew my arm off by the end of the six-hour bike ride. It doesn't work for me. So I really like protein a lot for the longer stuff, meaning five hours plus. I do add protein into most of my athletes' drinks. There's no magic to that four to one ratio; that's a wonderful marketing thing. There's not a lot of science that backs that up. Protein, the biggest benefit to me is that you don't get hungry. That's a big component because... Literally, I do have 24-hour mountain bike racers that are virtually straight liquid. The guy that just set the double-Ironman world record up in British Columbia, he was straight INFINIT for 22 hours, which is pretty phenomenal to think the body can perform for that long of a period of time on straight liquids and really not get hungry. That little bit of protein, like 10 to 15 to 1 ratio, really will just take that edge off where you're not famished and allow you to perform and pretty much go straight liquid the whole time.

So that's kind of the range. The short distances higher glucose, less calories, caffeinated. All the way up to the Ironman racing where calories are extremely important, electrolytes important and then I do add a little bit of protein.

The last thing is I do separate, when it comes to Ironman racing, the bike portion versus the run. The bike I like heavier calories, the protein, and then when you transition in the run I typically take protein out. That's where everybody has stomach problems and you just feel nauseous and it's hot. Again, I simplify things way back. I go lighter on the run. You just don't want to mess up. You don't want your stomach getting sideways. Always back things off a little bit. Make it simpler on your stomach so you don't have any nausea or any of the other stuff that typically you do when you're out on the run. That's kind of the range.

KERRY: Good deal. What's your website? Where can people find your stuff?

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MICHAEL: If you're outside of the US go to infinutrition.com. If you're inside the US go to the infinutrition.us website. You've got a couple of ways to do it. We've got a couple of preset triathlon formulas. We've got sprint formulas, we've got half Ironman formulas, Ironman formulas. Or we have an interview process that you answer some very simple questions and the website calculates everything that you need and we'll actually do a full-on custom formula that will match you exactly for calories, electrolyte, flavor preference, carbohydrate blend, protein, whatever you need. So it actually does it automatically. The other way you can do it is work with your coach. Most of the coaches know who we are at this point. So coaches are always a good thing. Or you're welcome to email me at the website, just go to [infinutrition](http://infinutrition.com) and hit the email button. Anybody is welcome to email me. I help people get set up all the time.

KERRY: Michael is also going to give you guys something special. If you go to the site and you order you can plus in "T S" for triathlon summit and "2009" and that will give you free shipping. So thank you for that Michael.

MICHAEL: Sure.

KERRY: All right. The next question I've got for you is a lot of people have stomach issues, whether it be cramping or sloshing of the stomach, things like that. You were talking a little bit about today. Why don't you also go into cramping of the legs too? What are the best ways that people can avoid both those situations of cramping?

MICHAEL: Yeah. There's two components to that. Where I go to most people is go through that sweat-rate test. I find that, at least our product, our product has a lot of salt in it. That does two things. Number one, most of the drinks I drank out there were too sweet. They taste fine if I'm sitting in transition or for an hour and a half, but after like three hours or something most of that stuff is way too sweet. Our stuff, actually, the flavor is pretty muted and it's definitely got a bit of a salt overtone. Salt is a key component both from a flavoring standpoint but also to make sure the water is transporting. As long as you're drinking enough fluid and you've got enough salt in the product, I have a lot of luck with people that have had muscle cramping issues. So between those two things the fluid rate, if you know your sweat-rate and if you're getting enough salt and you're getting those targets, that takes care of it for most people.

The whole school on electrolyte replacement is really changing right now. I work with Joe Friel quite a bit and Joe is really of the opinion, and I respect his opinion a lot, that salt is almost impossible to get up at the cellular level during exercise. It works getting fluid out of your gut and you need that, but cramping, up in the muscular level, getting salt up to

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that, is virtually impossible during exercise.

The direct correlation to taking a salt pill to eliminate a muscle cramp is probably not there. But taking enough salt so you're transporting fluid and then the fluid gets up and then you're not dehydrated, that does take care of the muscle cramping. Gatorade for years and years and years has said electrolyte cures muscle cramps. Eh, that's not what the science is saying right now. It's a transition time for electrolyte replacement. It's an important component but taking more salt pills is not going to solve your muscle-cramping issue, typically.

KERRY: All right. We've been talking a lot about race-day nutrition but in terms of training, does the nutrition and blends you use, should it change at all because you're doing less intensity or not as long or longer workouts? What's your opinion on that?

MICHAEL: My opinion is that race-day nutrition is important but if you're not fueling yourself well during your workouts you're not going to recover as well. To me that's the biggest key. Yeah, during the workout you're going to feel better if you're on a long bike ride and you're getting quality calories down. Yeah, you're going to perform better towards the end of the ride. But to me the more important thing is if I'm getting quality calories down me the entire time, I'm going to recover better the next day. My next day's workout is going to be better. I'm going to be able to go a little bit harder, not feel so sore and over a long period of time you're going to become fitter faster. To me that's a huge deal. We spend all this money on all this equipment. If you ignore what you're taking during your workouts you're not going to recover as fast. Then post-workout recovery is extremely important, that you're getting quality proteins and calories in the meal. That's kind of it.

I don't think you have to do anything terribly special. Most of my guys, especially the Ironman guys -- and when I say guys I mean men and women, that's a generic thing -- for the Ironman people out there, typically what they're training with is what they use on the bike and you don't really need anything special for training. People have 8, 10 different formulas but that's just because they want to. I don't think you have to make it that complicated.

KERRY: All right. In terms of quality control, what do you guys do? There have been tests out there on some of the products out there and they're not all exactly the cleanest, to say the least. So what do you guys do for that?

MICHAEL: Yeah. That was one instance in particular with Hammer. I know those guys pretty well. I read what happened there and I think you can't really tell what happened on that one. I think there were some questions about

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what transpired with the athletes and certainly what happened with the electrolyte replacement. That's unfortunate for everybody.

For that exact reason we produce everything in-house. I don't shop anything out. Everything is done internally. We get everything tested on a regular basis. I do work with guys that are going to be racing in the Tour this year so a positive test right now, any of the Tour de France guys would be an immense problem. So we're very careful about that. We work with the Canadian Olympic team and all of our stuff has been pre-tested. We have very clean sources. I'm very careful about that. All of our products, I don't really skimp on anything. I made it so it would be for me. I really look at the product that way. If I'm going to be using it I want it to be the best.

I go to Walmart and I see what some people pay for protein. I can't buy it for that! The kind of protein we're buying is expensive. But it tastes great and it doesn't have that skunky taste like it's stale Heineken. It's very clean, carmely tasting. Our stuff, literally, you drop it in the bottle and two shakes, it's all mixed up. It stays in solution. We're pretty high quality when it comes to quality control and when it comes to pretty much every ingredient we have in there.

KERRY: All right, good deal. How can people figure out what's going to be the best INFINIT drink for them? Like you said, you have some pre-made formulas there or people can customize it. What would you suggest people do?

MICHAEL: That interview that's on the website does a really good job. It's a series of questions - how big are you, how tall are you - that's going to give you a percentage of body weight that's going to come up with a caloric number. The duration of your training and your "A" race will give you the type of carbohydrates. Your history of muscle cramping. Questions like, "Are you a heavy sweater? Are you a salty sweater? Are you covered with white residue when you're done with your workout?" Those types of questions set your electrolyte levels. Protein is dependent on the type of racing and how long you're going. Typically if it's over four hours it does include protein or three hours it does include protein. So that's a great way to start. You just fill it in. They have answers for it. Sets the sliders up you and that's great.

If you go to the preset formulas, all those are setup for typically a 170-pound male. So if you're a guy of that body size and you're racing Ironman, the Ironman distance-mix is by far our best seller and that's a great product. It's just a stud. That's something you if you go ride eight hours you can drink one serving and hour and you're happy as a clam. It's great stuff.

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Then the last way, you're more than welcome to email me through the website and give me a phone number and myself or Melissa or Katy will give you a call and we certainly can set you up with no problem. But when you're done and you get set up, it makes everything just so much easier just to drink your stuff and pedal your bike. That's about as complicated as we get.

Then the other thing is we've got a full money-back guarantee on anything that we do. So if you don't like the taste of it, if it doesn't work, we'll remake it at no charge. If it still doesn't work I'm happy to give your money back. In 4 years, we've got 10,000 clients at this point, I've had to give people money back 2 times in 4 years. Our track record is pretty strong as far as having people happy with the product.

KERRY: We've got a few people here on the webcast asking some questions. Do you want to go ahead and try answering some of them?

MICHAEL: Yeah, sure. No problem.

KERRY: All right, good deal. Jason from Dallas says, "In Ironman or even half Ironman, what should the nutrients be for the bike? I have been using a product by Hammer, Perpetuem. It's too thick for me. If I follow the suggested serving for my body weight, which is 185 to 200 pounds. What do you recommend? I'm in Texas and it is hot in the summer."

MICHAEL: We get a lot of Hammer customers for a couple of reasons. Number one, the Perpetuem product, it's older. It was made 20 years ago. It's a straight maltodextrin product, which if we go back to those absorbing numbers, if you're taking Perpetuem you're really capped at about 240 calories an hour. You being a bigger guy at 180 to 200 pounds, you need more calories than that. It's almost impossible to absorb that many using just the singular. For a guy that's of that body size, I would set up a product that's about 320 calories a serving but of the right type of carbohydrate.

I know there's some propaganda out there about simple sugars and insulin spike. I've never seen any science. I've talked to some of the best nutrition people in the world, the top nutritionists. It's a great marketing piece but it's really not accurate. During exercise your body is looking for calories. It doesn't care whether it's simple or complex. So I think that's one thing.

The other thing is that the Perpetuem product is pretty bad when it gets warm. It's okay when it's cold but how real-world is it on a four or five or six-hour bike ride to keep your product cold? It's just not. It just doesn't work very well. That's the main thing.

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What we can do is give you the right amount of calories. You're going to absorb a lot more of them. We can set the slider level where you want it to be so it's going to taste how you want. Add a little bit of protein in it. It's a lot simpler. We get a lot of Hammer customers, let's put it that way.

KERRY: All right. We've got Brian from Hattenfield, New Jersey, he wants to know, "On your slide scale, what is a good osmolarity?" Is that how you say that?

MICHAEL: It's actually osmolarity. What the osmolarity is is essentially that you want it to match what your blood osmolarity is. What happens then is that it crosses across the cellular boundaries very easily. Your blood typically is around 280. This is a term that all the hospitals use for IV solutions. This is nothing I've invented. You want, typically, to be less than 300. Once you start getting over 300 that's when it becomes hypertonic and that's when your body will kind of kick into that digestive mode. So as long as it's staying under, typically I like it 280, that's an isotonic solution and you'll have no problems at all digesting it whatsoever.

This is an FYI. Some of the products out there, like the regular Gatorade, is, I think, 450. Cytomax is almost 500. We've got a product comparison on the website you can check out. There's a lot of products out there if you take a look at technically how they work. It's probably not the best. A lot of times you have to cut the Gatorade or cut the Cytomax to make it work and then you're losing all the benefit of the calories and the electrolyte and you run out of energy. The osmolarity is a key component when you take a look at sports nutrition. If I had to say something it would probably be right around 260 to 280 to 290 range, is perfect.

KERRY: Yeah. I used to drink a lot of Gatorade when I was younger. It used to destroy me when I did sports. No longer.

MICHAEL: Back in the day we used to drink Gatorade for Ironman, straight Gatorade. Fructose is a really tough sugar on your stomach. You get that gut-ache, that feels like you've eaten a bag of nails. That's always a joy to try to run with that. Fructose and high-fructose corn syrup is not exactly a great race fuel. Let's put it that way.

KERRY: Yeah. Scott from Dallas wants to know, "How do you know if it is isotonic?" I'm assuming he means the drink.

MICHAEL: Yeah. On our website there's actually, if you look down below the slider, there's a couple of numbers that you ought to pay attention to. There is an osmolarity number there. So anytime you move those sliders it's going to give you what the osmolarity of the solution is. For you guys the only thing you have to worry about is putting two scoops in a 20-ounce bottle and

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that's going to be what the osmoality of the product is. We adjust the scoop size at the shop so if you're a bigger guy or Clydesdale and you've got a ton of calories in there, we put the right size scoop because different formulas have different volumes. So it's easy from your side. You get the formula, we put the right scoop in there for the formula, put two scoops in the bottle and the osmoality is going to be right where that number is.

The other number, you can see the number of calories right next to the osmoality number, and then sodium. If somebody hasn't asked the question, they should. Typically a place to start for guys I start them right around 375. If you're a big-time crammer maybe 400, 425, but not much higher than that. For ladies, ladies are more salt-sensitive than guys are and I don't know why that is. Maybe we're just raised on bacon and things like that. I don't know. But women don't like salt as much. So typically I start the ladies down around 325. If they're crampers I will typically put them up around 350. But those are kind of the electrolyte numbers. So osmoality, calories and sodium are right next to each other.

Then if you ever want to see what the actual nutrition is there's a box in the bottom right that says "nutritional information." You can click on that and it brings up the FDA label and it will give you the exact read-outs on everything.

You get to the website and it takes you about two minutes and you get pretty comfortable with it.

KERRY: Good deal. Julie from Littleton asks, "Which products, other than INFINIT, do you consider to be isotonic?"

MICHAEL: As I said, I think the Cliff products are light on calories and electrolytes but certainly isotonic. PowerBars product is not a bad product. It's a little sweet for me but it's still isotonic, multiple carbohydrates. Enervit [?] is another isotonic drink. It's not an easy one to get. It's more European. But that's probably my second favorite product out in the market right now. It's four carbohydrate sources, a solid amount of salt, really light flavor, typically lemon which is really easy to drink. A lot of the Tour guys use that stuff. In Europe I think the ProFour products are isotonic. I'm probably missing some. Oh, and the Hammer products are definitely isotonic because maltodextrin is very low osmoality. That's the reason why CarboPro works so well. You can put a ton of calories and get very high solution rates and still keep it isotonic. Those are the ones I can think of off the top of my head.

KERRY: All right. Robert from Los Angeles asks, "What do you think about mixing your drinks with any other fuel or nutrition sources?"

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MICHAEL: Well, it's not a problem. The only thing I ask is that, especially if you're a long-course guy, is that you should try riding your bike for five or six hours just using the straight INFINIT, especially with a little bit of protein in it. I find that people are shocked. They get to the end of the bike ride and they're not hungry. In today's economy everybody is trying to save bucks. If you take a look at the cost of trying to eat bars and gels and drink other drinks, on a 5-hour bike ride, I did the calculation, it's like 14 bucks what you spend on nutrition versus what we do is like 7.50. So you save money doing it that way. It's not really necessary.

There's no magic to a gel. A gel is essentially maltodextrin and a little bit of flavor. So it's not chemically bringing anything to the mix. It's not really necessary but there are some people out there that say, "I really like my peanut butter bagel halfway through the bike." If that's the case, fine, perfect, do it. But if you're going to do it don't ever wash food or gels down with a sports drink. Always wash it down with water. A sports drink is either marginally isotonic or hypertonic and if you take that type of a solution down on top of food or gels or anything, your stomach is going to shut down. So that's a bad idea. If you really want to eat a quarter of a peanut butter and jelly sandwich or something like that, go for it. But make sure you wash it down with water, not a sports drink, ever. That's true for gels, for food, for salt pills, anything like that. Always wash that stuff down with water.

KERRY: Is there any time that you should wait before eating and then drinking afterwards? I would assume it would be the same if you ate and then dumped some sports drink in there three or four minutes after.

MICHAEL: It's a little bit of guesswork, honestly. You've got to make sure that if you are taking solid foods, you need to make sure that you're taking down enough water on top of it so it's going to be diluted enough and the solutions in your gut aren't too much where you kick into that digestive process as we talked about. It's a little bit voodoo. That's kind of the reason why I really like liquid nutrition a lot, because you don't run into that situation of guessing. I don't know about you, you've done enough racing, obviously, my brain just turns to mashed potatoes for a half hours in. I'm like done. I don't want to think. I can't think. It just doesn't work very well. So trying to calculate, "All right, I ate a half a peanut butter and jelly sandwich, I need to drink 12 ounces of water," sometimes you get it right and sometimes you don't. But with liquids it's pretty easy to say, "I'm 280 calories an hour, boom, boom, boom." So that's kind of the reason why I like liquid nutrition. If you want to take some food in that's fine, but definitely pound it with some water.

KERRY: All right, good piece of advice there. What's your website? Some of the people are asking about that here.

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MICHAEL: Infinutrition.com, infinit without the “e.” Then just select your country and you’ll be right in the website.

KERRY: Good deal. Darren Peterson from New Jersey. He says, “I train primarily in New Jersey and we can have varying climate and temperatures. Coming from 100 plus degree 8-hour training days and going into an Ironman late in the year in cooler temperature zones, should I bring a different mix of your product for the cooler zone as I’ll sweat less?”

MICHAEL: Yeah. That’s a great question. I have the same problem here in Ohio. Around here it can be just brutally hot and other days it can be quite cool. It kind of brings up another question which is, how do you transport your stuff on race day? The way most guys are using the INFINIT nutrition products is that they’re making sure that they’re taking at least one serving an hour, so you’re getting all of your calories and salt. And then they’re supplementing with water off the race course. You can vary that water intake, meaning that, “I know I’m drinking at least a serving of the INFINIT an hour so I’ve got all my calories. But if it’s a hot day I might want to supplement with 8 or 10 ounces of extra water on an hourly basis.” If it’s a cold day, and it’s raining, you know that on this kind of day you’re sweating 22 ounces so you don’t have to do a lot of water supplementation.

I always like using the race course for water and then I have my product that I have as my source for all of my nutrition. That kind of, I think, answers the question. As long as you’re taking the one serving of the INFINIT per hour it really doesn’t matter. You can gage depending on the climate of the day, “I’m going to need a supplement with a lot of extra water because I’m sweating a lot.” If you’re not sweating a lot then you can back off the water intake a little bit. I think that’s probably a simple solution to the question.

KERRY: All right. We’ve got Keith from Wallkill and he asks, “How does Endureox and Accelerade compare?”

MICHAEL: Actually, they’re fine. That’s one I actually didn’t mention. The Endurox product I think the osmoality is right at 300 so it’s not bad. It’s maltodextrin based. There’s no magic to that 4 to 1 ratio. If you read that particular study essentially what they said is if you take this amount of carbohydrate and see how people perform they do this well but if you add 25 percent of more protein into that amount they perform better. You can’t tell whether it’s the increase in calories or whether it’s a 4 to 1 ratio. It’s very inconclusive.

We’re actually doing a study right now with the University of New York

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that's going to be more of apples to apples to find out whether protein works, matching the same amount of calories from protein, the same amount of calories from carbohydrates and also at a 4 to 1 ratio. We'll know really quickly here what the numbers are true.

But Accelerade is isotonic. I think it's too much protein for most people over a long period of a day. You can get a little bloated from it. I've used it. The Endurox product, that was probably the best on the market for a long time. They use sucralose. I'm not all that fond. Our stuff is all natural. I'm just not a big colors and artificial sweetener kind of guy. Our stuff is clear, there's no artificial colors. It's a decent product. It's not bad.

KERRY: Good deal. Actually, I asked someone that was taking part in the study, the scientists to figure out the 4 to 1 ratio with protein, and I asked them how they figured that out and he was like, "Well, we didn't really know. We just knew that some protein in there was needed and we just went with the number that we thought people could remember." So they went with 4 to 1. [Laughter]

MICHAEL: That sounds about right.

KERRY: Yeah, that was that. It could have been 8 to 1, it could have been 16 to 1. "We just knew that we needed something."

MICHAEL: A judge gave them a patent on that. Can you believe it? I'd like to meet the judge that actually wrote that one up, which was brilliant. I do agree that protein is, especially when it comes to the endurance stuff, protein is definitely a key component. I really do like that part of the product a lot. I just don't think it has to be that much. I think you get the same performance from a much lower ratio and you eliminate a lot of the possible stomach issues because the one thing I do hear is that when it gets warm and when the product gets warm it can be pretty tough to get down and you can bloat out a little bit. So I love protein, I just don't think it has to be at that high of a number.

KERRY: Cool. Sara from Indianapolis asks, "How do you know if a product is isotonic by reading the label?"

MICHAEL: You can't. You have to buy yourself a \$4,000 osmoality tester. Now Sara, if you like, you're welcome to email me and I'll go out and buy the product and I'll let you know what it is. We do have a product comparison on our website that might have the product that you use. It gives the osmoality numbers along with the amount of calories and electrolytes. So you can kind of do an apples to apples comparison based on a 20-ounce serving.

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Honestly, there's very few companies that really are paying attention to that. When you start hearing them talk about multiple carbohydrates and when you start hearing them talking about isotonic solutions you know the guys kind of have their act together. There's some new companies out there. The First Endurance brand I think is another one that I missed that those guys are pretty solid too.

But you can't really know. Quite honestly I think some of the companies don't want you to know what the actual osmolality is in the product.

KERRY: Good deal. Eric from Spokane asks, "In Iron distances I have a problem about three hours into the bike that I don't want to drink anything else, even water. Is this what you're talking about with the stomach shutting down and how do I prevent it?"

MICHAEL: Well, it could be a couple of things. Definitely if you're feeling backed-up, typically that's what it is. Think about it. You can only jam so much stuff in and it's got to be in the right form, meaning isotonic, or it's just like putting ten pounds of sugar in a five-pound bag. It just fills up. That's when the sloshing happens. If things aren't processing like they should be, again, it's got to be in the right form in order to make sure that it's being absorbed correctly. So that definitely could be a part of it. If you're doing too much... My recommendation in that kind of a circumstance would be to immediately back off and to do less. I think that's probably what you're dealing with. You're trying to do too much. You're not doing it in the right form and your body is seeing Big Mac is what it's seeing. It's trying to process it. So if you ever get into that situation, back off immediately, water, kick start in the run. Go to the chicken soup because that is salty and will generally kick start things. That's probably what I would say about that.

KERRY: Sue in Denver has a technical question. "If you are racing with INFINIT, but obviously that is not the drink offered on the course, how do you carry enough to get you through an entire Ironman?"

MICHAEL: Awesome question. Killer question.

KERRY: I was going to ask you that actually.

MICHAEL: It is. That's a great question. If I'm a 170-pound guy and I'm targeting 300 calories an hour, how do I carry 1500, 2000 calories? A couple of ways. A lot of my athletes will mix six scoops in a bottle and then just dilute with water. That adds a little bit of a level of complexity. You've just got to make sure that you're diluting it right. But you very comfortably can get 1500 calories in two bottles. That's one way to do it.

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The other way to do it... I'm a big, simple guy. I start with three bottles. I drink one an hour on about a five and a half to six-hour bike ride, depending on how fit I am. But I start with three bottles on my bike. I drink one an hour. I supplement with water at the eight stations, depending on the heat of the day and then I grab three more in special needs. I've never had a problem with my bag not being there. It takes me 30 seconds to stop and pull the bottles off and put them in. So I drink one bottle an hour. I supplement with water and that's it.

Then for the run, very easily, most of my athletes are using a fuel belt and literally they'll take the fuel-belt bottles and fill them right to the very top with powder because our stuff mixes really easily and stays in solution. Just add a little bit of water to it, shake it up so it's like a heavy concentrate but it's not thick like a gel. Then when you hit the aid station just squirt a little bit in a couple glasses of ice water and pound it. It's still salty so it still tastes good late in the day. Pretty comfortably you can get 400-500 calories in each one of those fuel-belt bottles. For most people that should be pretty much enough for a marathon. I always am redundant. I always like having some extra bottles out in special needs. If I'm using it and I'm blowing through it, I always like to have the extra calories, if it's working real well. You can get 1600-2000 calories in 4 bottles. For half Ironman that's plenty and for full I always like being a little redundant, as I said before. Yeah, great question.

KERRY: Actually, I'll tell you a funny story about the powder. There's this guy, I don't know if you know him, his name is Antarctic Dave. I heard him speak. He went and ran in Antarctica. He was doing marathons and ultra-distance stuff in these really cold areas. Any liquid you have is going to freeze. Gels are going to freeze and bars end up being like a tile. So what he would do is he would actually eat the powder because it was the only thing he could get into himself. I can't remember what he said he was doing for fluids, if he was eating snow or something. I don't know. But yeah, it was pretty funny.

MICHAEL: He looks like scarface at a certain point, white powder all over his face. I can imagine that. [laughs]

KERRY: Oh, yeah.

MICHAEL: I was friends, not good friends, with John Standsted. I don't know if you know that guy but he won the Ididabike like six times. He used to live here in Cincinnati. I've got so much respect for those people that do that kind of crazy stuff. It's a trip. That's funny.

KERRY: It's kind of like the Ironman stuff, not really though. [laughter] The last question we've got from Jane in Indiana, she wanted to know if you're

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going to be at Arnold's next month and do you have any samples we can try?

MICHAEL: Actually, if anybody wants you can go to TryInfinet.com and you can get a free sample. That's really easy. If you guys want free samples go there, sign up and you can get a free sample. Again, we've got a money-back guarantee on anything that we do. There's no risk on what we're doing. If you don't like it we're going to give you the money back. So my recommendation is give it a try. If you want free samples you can go there.

I was at the Schwarzenegger two years ago, I think, and kind of quickly decided that it's probably not our target market. I saw these 170-pound women walking around, way more ripped than I was. It's a different marketplace. Although I did enjoy it. It was an absolute hoot. Some of the martial arts stuff was great. In Indiana there's a handmade bicycle group, which is all handmade custom bikes. I think it's in Indianapolis this weekend. I was possibly going to bop up for that. That's the closest I'm going to come.

KERRY: Good deal. That's awesome. Michael, thank you so much for coming on the call tonight. That's all the questions and everything we've got. One more time, what's the website that people can get your INFINIT stuff from?

MICHAEL: Sure. It's InfinetNutrition.com. Just select the correct country, go there and if you have any questions at all at that website you can just go to the "contact us." If you have formulation questions give me your name, your phone number. Ask a specific question. We're really good about getting back to folks. If you need help setting something up I'm glad to do that for anybody. I like working with athletes, it's a great part of my day.

KERRY: Cool. What I'll do for you guys too is I'll shoot out that information for you in an email and I'll give you information on how you can get free shipping on your first order there. So that is that. Michael, thanks again and I'll talk to you later.

MICHAEL: All right, Kerry. Thanks, man. I appreciate the opportunity and hope everybody has a great spring.

KERRY: All right. Great. Talk to you later, guys. We'll see you next week at the same time, same place. That's it. Have a good night.