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Rob Simmelkjaer: Hi there. This is Rob Simmelkjaer, the CEO of New York Roadrunners here with a special pre-marathon episode of Set The Pace. And today we're talking about a topic that is especially important to me. People always ask me what makes a successful marathon day? And the answer I always give is pretty simple. I'd like every single person who started the race to finish the race safely. That's what it comes down to. And that's a tall order with over 50,000 runners taking the starting line of the TCS New York City Marathon. But we have an incredible medical team all along the course from start to finish, who is our partner in making sure that our runners make it from start to finish safely. That group is called CrowdRx. They, along with an incredible collection of medical volunteers that we have throughout the race, are really the heart and soul of our medical and safety operation at not just the marathon, but all of our races. And joining me to talk about that incredible team and the work we do as well as to give some tips to all of you out there on how to stay safe on marathon day is Dr. Matt Friedman.

Matt, I'll call you Matt. I call you Dr. Friedman. Is Matt okay for this podcast?

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Matt Friedman: Matt is perfectly fine, please. Thank you. Let me just say hi. It's great to be here. I'm an emergency medicine physician based in Brooklyn, New York. I've been the National medical director for CrowdRx since 2013.

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Rob Simmelkjaer: It's great to have you here. So let me start with just a little bit about the behind the scenes that runners probably don't understand, the scale of the medical operation that we bring to bear on marathon day. How big is that medical operation? Dr. Friedman,

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Matt Friedman: The safety operation of marathon day, it's really a year long in planning for a single day. I guess that's not surprising to anyone involved. We have full-time staff, we have part-time staff, we have per diem staff, we have it all. And they're really coming from all over the metro region and farther. The medical operation is complex. We have four start tents, we have 25 horse tents, we have five finish line tents. We've got many, many bike EMTs, so EMTs on bikes responding with medical equipment. We have more than 15 gators, we like to call them. You may know them as ATVs or UTVs. They have a stretcher on them and can respond to a patient and move a runner around. We have finish line

quick response teams. We have spotter towers. We have more than 70 ALS and BLS ambulances, so EMT or paramedic ambulances. But the most important driver obviously is our volunteers and we have 2,500 volunteers on race day.

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Rob Simmelkjaer: And they play such a vital role in keeping our race safe. So Matt, let's talk about the journey of the runner and how they can stay safe throughout from before the race to of course, during the race. And let's start with just the basic question of should a runner run a marathon? And what conversations should someone have with a physician about whether it's safe for them to run a marathon? Are there certain conditions that if a runner has this condition, whatever it may be, a medical history of any kind, that it's especially important for someone to talk to their doctor first before they even take on the challenge of running a marathon?

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Matt Friedman: So obviously running a marathon puts physiologic stress in the body. I think we're all very comfortable with that idea. There are certain conditions that we do want to know if a runner has. And it's not to say that if they were to have them, they couldn't run, but they should moderate, they should moderate their risk. So we want runners to find out if they have coronary artery disease and what their risk factors are and what they should do about any coronary artery disease. We want them to know if they have a predisposition to seizures, if they have a predisposition to heat stroke or if there are any structural heart problems that should be diagnosed prior to running. Again, if you are diagnosed with one of these things, this is by no means can you not run anymore. We just want you to moderate. There's different tests to diagnose all of those different conditions and we would leave it between you and your primary care physician to diagnose and run the tests that are necessary. But that's a question for you and your physician and we just encourage you to get checked out.

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Rob Simmelkjaer: And not every runner is necessarily going to have a full battery of tests. A EKG and all kinds of scans to make sure they're safe. If they haven't had a negative medical history, if they've generally been healthy throughout their lives, what do you recommend for those people? Is it simply just, Hey, you should be getting your regular checkups and maybe letting your doctor know you you're taking part in these kinds of endurance events?

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Matt Friedman: That's exactly what it is. We want you to get your annual checkup and when you get your annual checkups, like, "Hey Doc, I tend to run a marathon, tend to run races year to year. Anything I should be worried about or anything I should take note of?"

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Rob Simmelkjaer: What if you're feeling under the weather during the week of the race? Maybe you've got a cold. We are entering flu season, COVID is up as well. What do you recommend to runners if ... It's hard. You've put in months of training, you've got this date circled in your calendar and all of a sudden race week arrives and you're just not feeling your best. What advice do you give to folks in that situation?

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Matt Friedman: My answer to that would be to moderate, moderate, moderate. There isn't really a clear answer here about what you should do if you don't want to run because you're under the weather, come see me. I'll give you a doctor's note. There's no reason that you can or cannot run if you're under the weather, but if you have mild symptoms and you want to run, go for it. Just moderate. Don't aim for your PR that day, just take it easy.

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Rob Simmelkjaer: And Dr. Friedman. Another thing that's a little underrated when it comes to runner safety, but it ends up being a big issue for us and for you and your team when there's an incident, is to make sure that your emergency contacts are updated. We so often have runners who have a medical event of some kind, and of course the first thing we want to do is let your family or whoever your emergency contact is know about that so they can find you wherever you are and be there to help with whatever your situation is. And a lot of the time the contacts are not updated. So it's really important for people to update those emergency contacts. Another logistical side that we want to make sure people know about is our runner communication center that is on every single bib. If you look at the back of your bib, you'll see the number. It's 866-705-6626. Dr. Friedman. Why is it better for someone to call that number than call 911 if they see another runner in distress in the race?

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Matt Friedman: So you're getting trained personnel when you call that number. There's an emergency on the course, you

should call that number. When you call that number, you're getting an emergency call receiving operator. Somebody who is incredibly familiar with the course and they're incredibly familiar with the closest responding asset, whether it's a bike team, a gator ATV team, an ambulance or a foot response team. Calling 911 on race day for an incident along the course would actually delay time because all of those calls get reworked to the race communication center. They all get reworked to the RCC. So the fastest thing to do is call the RCC. You'll get a timely response from our suitable responding assets.

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Rob Simmelkjaer: I really do recommend people put that number in their phones, save it just in case you ever are in a situation where you want to call for help for someone else you see or even for yourself. All right. Dr. Friedman, let's get into the race now. And running a marathon or maybe a half-marathon, whatever it is hard. You know that you're going to feel distress of various kinds. When you are running 26.2 miles, you're going to get out of breath at times you're going to feel muscle fatigue. This is part of the deal. But when Dr. Friedman should a runner start to think, oh, this maybe is a little bit beyond what I should be feeling? What are the kinds of warning signs that should make a runner slow down, maybe stop and maybe even head to a medical tent?

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Matt Friedman: So it really shouldn't differ from your training all that much, but if you feel like you're about to collapse or feel like you're about to pass out, slow down, reassess yourself. Give yourself a few minutes at a slower pace and see. If you're having palpitations or heart racing faster than what you think is normal, slow down, reassess, take a breather for a couple of minutes. Obviously the trouble is it is tough to recognize, but if you're feeling more agitated than usual, if you're feeling irritable, delirious, if you're feeling incredibly hot or flush skin, please just take a breather, slow down, reassess after a couple of minutes. If you slow your rate and you're still feeling problems, you're still not feeling your normal self, then we would advise you to come to one of our medical tents and get checked out.

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Rob Simmelkjaer: I think that's so important. Think about how you did feel during your training runs. And yes, we know you're going to push harder in the race than you did in the training runs, but hopefully everybody out there can

sense those key signs, dizziness, nausea. Those are the signs that, okay, my body's telling me something is not right here. I need to pull back.

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Matt Friedman: Absolutely. And just slow your pace down for a couple of minutes, reassess yourself. If you're still not feeling better, then bring it to a walk. Take another couple minutes. And if you're still not feeling better, get checked out. But if you start to feel better, if you start to feel improved, then slowly increase your pace again. Perfectly normal, a very rational approach.

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Rob Simmelkjaer: Peloton is leveling up. With the launch of their Peloton cross-training series they're redefining what race training can look like. Personalized cardio and strength, it makes it easier than ever to achieve real results. Whether runners are building a base or pushing for a PR, Peloton meets them where they are then helps them go further. Smarter training, stronger outcomes, all backed by expert instruction and performance insights. Ready to elevate your race game with Peloton? Head to onepeloton.com to learn more. Peloton an official partner of the 2025 TCS New York City Marathon.

The medical tents are there along the course and they're not just for serious medical issues. We have lots of people who go in there because maybe they need a Tylenol or a Band-Aid, maybe they're cramping and want to a little Icy Hot or something to put on their muscles. So we got a lot of different things that you can get if you go into one of those medical tents.

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Matt Friedman: Absolutely. And we also have physical therapists and podiatrists who really will rehab you and hopefully get you good and running again.

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Rob Simmelkjaer: We are having this conversation, Dr. Friedman on October the ninth so we do not know what the weather will be on marathon day, but can you talk a little bit about the impact of heat in case we do happen, have another warm day like the one we had say in 2022. And if you've got a warm, humid day, what kind of an effect should that have on the way that most runners approach running that day?

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Matt Friedman: I'm just going to say moderate, moderate, moderate. Just like we all used to say hydrate, hydrate,

hydrate. It's the same. Heat obviously, we all feel the effects of the heat. We feel the muscle weakness, we feel the fatigue. But the risk is real. When it gets hotter and hotter, moderate yourself. Maybe don't push for the PR on a hot day. Go slowly, be persistent, finish the course, but just take it easy that day. That is by no means a day to stretch yourself beyond what you're used to.

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Rob Simmelkjaer: You mentioned hydration and there's of course a golden rule that runners know nothing new on race day. You don't want to try anything new. What are some of the mistakes that you've seen runners make when it comes to hydration or nutrition on race day?

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Matt Friedman: As you said, changing up your routine would be first and foremost. We want people to run like they train, run like you train. So if you're used to training a certain way, switching anything up on a race day is not recommended. But we want you to pay attention to your body. You know your body. You know when something's wrong. Something is bugging you, slow the pace, get assessed, get checked out. Too much hydration and too little hydration is both bad. We want you to drink to thirst. We used to give the wrong mantra in the 1980s, 1990s that people would over drink and we saw some very deleterious effects from that. Another big no-no is caffeinating too much. If you don't normally caffeinate, please try and avoid caffeinating on a race day, we want you to run like you train. Also be mindful of what you ingest. A lot of things are caffeinated nowadays. There's a lot of energy drinks out there. You think it may give you an edge, but it actually is probably a little bit harmful. It will dehydrate you and worse, it'll make your heart speed up, it'll give you excess palpitations. It'll do things to you that you really don't want to be effective. So we would really avoid doing anything on race day that you're not used to or that you haven't trained with.

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Rob Simmelkjaer: That's interesting. Your point about drinking to thirst. And I've heard in the past people say if you're thirsty, you waited too long to drink, you should have been drinking to avoid thirst. Should people think differently? Is it really just as you would during your normal day when you're thirsty, drink. But if you're not particularly thirsty, if your body's feeling good, you don't need to drink and drink and drink just because someone told you never to get thirsty. And what are the dangers in drinking too much?

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Matt Friedman: There's a couple of variables at play. Mainly how hot it is or what you're used to. I wouldn't recommend stopping it every single water station if you don't normally do that. We want you to drink just to up your thirst. When you over hydrate, it does drop your sodium levels a little bit. So we don't want you to drink to over hydrate. Drink to thirst has been the recommended guidance for the last 10 or 12 years now, and we've seen the number of low sodium levels really drop dramatically.

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Rob Simmelkjaer: Is there anything you recommend Dr. Friedman in terms of a mix of water versus electrolytes and how much ... By electrolytes I mean Gatorade, which is what we serve on course or whatever electrolyte happens to be available. Do you have a recommended mix? Is it one-to-one? How do you think about how much water versus electrolyte sport drink that someone should drink?

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Matt Friedman: It's a tough question to answer in general because it really does depend on your body mass. Smaller people versus larger people need different amount of solute or salt. We would recommend that you run like you train. So if you're used to having solute with water and not drinking any Gatorade, keep on doing that. But we definitely do want you to take some solutes or salt in with the water. Drinking too much water by itself without any salt concentration can be harmful as well. So some electrolytes should be ingested along the course, but you should train like this too. You feel like your training has really gotten you to this point and you shouldn't differ from it all that much.

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Rob Simmelkjaer: And Dr. Friedman, so many of the serious medical events that we have dealt with at Roadrunners and that happened in the industry tend to be in that last stretch leading up to the finish line and sometimes at the finish line. And I guess in a way that's not surprising. The fatigue has built up, your body has been strained now for a while. And then also people are oftentimes going for those PRs, they're going for those BQs. That's when they're conscious of the time they're trying to hit and they are going all out at that time. And that's part of running. That makes sense. But I guess it goes back to the question I asked before and it's probably the same answer, but when do you say, you know what? Today's not the day to make that all out push for the finish line. Today's the day to

cruise in and enjoy it and maybe there'll be another day where I can go for that PR.

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Matt Friedman: So as an emergency physician what you're describing to me sounds like a tachydysrhythmia, which is when you get overexcited and you really push yourself to finish, that's when your heart can race really fast. And God forbid you can go into a dangerous arrhythmia. We don't want you to do that. We don't want you to push yourself beyond what you normally push yourself for. That is really the chance that your heart speeds up too much and it takes a really long time to slow down. So if you're feeling that moderate, moderate, moderate. Sub PRs is just as good, it's a beautiful day, finish it strong, but no need to overstress yourself and overstress your heart because there's always a concern of these tachydysrhythmias and pushing yourself in excess.

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Rob Simmelkjaer: Yeah. That's really important advice. So if a runner is on the course and they see another runner that seems to need help, what's the best way for them to signal that they want to get medical attention for someone or get a runner to a tent without blocking the course?

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Matt Friedman: So we pride ourselves in having resources throughout the course at a very frequent clip. If somebody needs help, I would stop. I would raise your hands. There should be somebody within 25 yards at the most, whether it's a NYRR staff member, whether it's a New York City official, there will be somebody to stop and notice. Somebody with a radio who can call you. Ideally if the patient's able to walk, you should walk them to the medical tent to get checked out. They just need a little bit of assistance. We have a medical tent every single mile. They should ideally walk into that medical tent. If they can't walk, we will come to you, be it a bike on foot, in a gator, in an ambulance, we will get to you. But the first thing first is to find somebody who can help. Stopping raising your hands, flagging people down does the trick.

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Rob Simmelkjaer: And I always say at the starting line of a lot of our races when I speak, I tell the runners, I really hope to not see them in a medical tent. We don't want them in a medical tent. But if someone does end up having to go to a medical tent, Dr. Friedman, what can they expect to see? How is that set up? How are they evaluated?

How are they cared for? What is the protocol that they'll go through if they do end up having to go to one of our medical tents?

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Matt Friedman: So I like to say that we have the most multidisciplinary team probably in the entire city at that point. We have physical therapists, we have nurses, we have occupational therapists, we have emergentologists, which is just a funny name for emergency medicine physicians. We have neurosurgeons, we have rheumatologists, we have endocrinologists. We have a full team set to assist you. We have mental health workers, we have paramedics. First thing first we're going to come into the tents and we're going to assess you. We may take your vital signs, we may set you down in a chair, we may lie you down into bed. We're going to assess every runner who comes in there. We're going to determine what they need and make recommendations based on that.

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Rob Simmelkjaer: And then from there you got a lot of different types of treatment. I've seen people in ice baths, I've seen people getting all manner of treatments. Obviously fluids and things like that are often a big part of it. But at what point Dr. Friedman in that process do you and the medical tent decide, okay, we need to move someone to another facility if they need more serious medical attention?

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Matt Friedman: So we're better equipped with more nurses and more staff than most local facilities. We really do our best to treat and stabilize you on site. We really would try and avoid sending anybody to the hospital should it be needed. Sometimes somebody falls and it sustains a laceration. They may have to go to urgent care to get sutured up. That's pretty rare though. Most things we have on site in one of those medical tents to treat somebody and prevent any further transport to any definitive facility like a hospital. We'll treat you we'll get you back into shape and most people just need time. I would say that's the number one treatment we offer people is we offer them time just to get back to their normal self. And then most people walk on out of there. It's really amazing. Some people come in quite tired, fatigued, altered, obtunded and give them about half an hour and they're back to themselves. They don't feel like a million bucks but they feel pretty good.

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Rob Simmelkjaer: Yeah, absolutely. And we know that nobody

shows up at the starting line planning to end up in the medical tent, but if you need it, there is absolutely no reason to avoid it. We have incredible professionals in those tents and take advantage of those opportunities. Take advantage of the resources they're there for you if you get to a point where you need them. So please don't feel any shame in going to a medical tent if you need one.

Dr. Friedman, I want to talk about CPR and we have clearly seen in our events that when there are serious events, cardiac events in our races, the biggest determiner of success or a tragic outcome is whether there was someone nearby who was able to perform CPR. And in most cases the first person available to perform CPR will be a fellow runner because the runners are everywhere and they'll be able to perform up until that time that one of your medical professionals is able to arrive. And so we talk about learning hands-only CPR, what is that and why is that so important?

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Matt Friedman: So there is good data which shows that you don't need to provide the rescue breathing or the mouth-to-mouth CPR to get desired results. Hands-only CPR takes out the rescue breathing. You really just do the compressions, which for the first five minutes is fairly effective or I should say very effective at getting blood flow to the patient's body until we get there. The first five minutes are key. There is no need to do the rescue breathing if you are not trained in it. Do only hands-only compressions. And that's simply you take your hands ... And we can have a video of this at the expo presented by New Balance. You take your hands and you're going to compress their chest at a rate of about a hundred per minute at a depth of about one to two inches. So you're going to compress their chest for one to two inches at a rate of a hundred compressions per minute.

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Rob Simmelkjaer: That's about one compression, almost two per second, a little less than two compressions per second. So you're going really, really fast there with those compressions.

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Matt Friedman: It's a clip. It's a fast clip. We also want people to change out. It's physically enduring. You really have to work hard at it. So we do want people to change every couple of minutes. We'll be there within five minutes, but we really do want people to change out hands-only compressions. But hands-only compressions is perfectly effective for the first five minutes. There's no need to do

rescue breathing. Just compress their chest to the best of your ability and that will provide time for us to get there and before life-saving treatment.

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Rob Simmelkjaer: And Dr. Friedman, you mentioned we are going to be doing demos of hands-only CPR at the expo. What can a runner expect to learn if they stop by that demonstration at the expo of CPR?

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Matt Friedman: So they'll see the exact placement for where you should place your hands on the sternum. They'll get practice doing it with a mannequin so you really understand the force that's necessary. I hate to be graphic, but you are expected to break some ribs in the hands-only compressions. That means you're doing the right thing. And it can be jarring to people. But if you understand that and you're doing the right thing, that is the biggest determinant to see if the patient lives or dies. And so many runners are so salvageable and able to be saved with a runner who performs CPR and we get there with our AED and trying to fibrillate their heart.

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Rob Simmelkjaer: Absolutely. It's something that I think every runner needs to know every single person listening to this can be a part of saving a life if we happen to have a runner who unfortunately has a cardiac event during a race. So we really encourage everybody to check that out at the expo. Dr. Friedman, there are videos as well online that people can watch to see how to perform this.

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Matt Friedman: Absolutely. Hands-only CPR. Feel free to Google that. You'll see a short video. It really is a very short training period. You can also reach out to the local American Heart Association or American Red Cross to get fully certified and get an official certification.

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Rob Simmelkjaer: All right. So Dr. Friedman as we wrap up, what's your best overall piece of advice to runners as they get ready to take on this day and this challenge? And we know it's going to be one of the best days of most runners lives. But on the medical side, what's the best advice to make sure that they finish strong and stay safe?

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Matt Friedman: We want you to run like you train. We ideally

want you to run in a group or with friends and just have a good day. Enjoy yourself. No need to push yourself in excess, moderate, moderate, moderate. It'll be a wonderful day in a thriving community and it'll be fun for all.

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Rob Simmelkjaer: All right. And we've got a lot more information by the way out there about this topic. So if anyone wants to learn more, they can go to our website nyrr.org/marathonrunnersafety, that's nyrr.org/marathonrunnersafety. Dr. Friedman we also have a system that we use to give runners a sense of what the conditions are like on a given race day and how hard they should be pushing ourselves. We call it the EAS system, flags of different colors. Can you talk about that system a bit and how runners should pay attention to that? What it means if we have a flag that's a yellow or different color than green?

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Matt Friedman: Yeah. So green means go. Green is good. Take no caution When you do see a green flag. Yellow would be our next flag up and that means take some caution as conditions are less than ideal. Slow down your pace a bit. Drink to thirst again, moderate, moderate, moderate. After yellow we would encounter a red flag and red means that there is some risk, there is some high risk and it's potentially dangerous. Runners should exercise caution and slow your pace significantly and you should look for further instructions from race officials. And after red is a black flag and that means there is an extreme risk and the race is canceled. Participants should stop running. We use the wet bulb globe thermometer to assess this. This is a standard device across the running industry really worldwide. I'm going to explain the specifics of that in a whole other podcast. But green is go, yellow is exercise some caution, red means extreme risk and really exercise a lot of caution and black means stop running

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Rob Simmelkjaer: Dr. Matt Friedman, thank you so much for being with us for this great information. We will see you at the expo for that CPR training and obviously we will see you on race day. Thank you very much.

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Matt Friedman: Nice talking with you Rob. Thank you.