

High School Strength Conditioning Cert Teleseminar

BG: Welcome, welcome, welcome, this is Brian Grasso, founder and CEO of the IYCA, and a real special treat for everyone tonight, myself included. Three of the very, very, very best strength coaches in all of the industry are my guests tonight. And we're going to be speaking very specifically about the topic of high school training. Training high school champions. And I can't think of three better guys in the industry to be talking about this particular topic. Now, I'm going to repeat myself more than once on this one, because as new folks chime in, the background noise can be quite overwhelming for everyone. So, if you hear me say this again and again and again, please don't be annoyed at me. But, we have to have everyone press star 6, if you are a guest on tonight's call, please press star 6, so that we make sure that no one can hear you but you can hear all of us. So, I'll repeat that over and over again. I tell you what, we're going to get started. The high school training manifesto is underway. And I won't spend a whole lot of time introducing these three guys because they're relatively household names in the strength and conditioning industry, and for very good reason. These are three of the best. Will Fleming, Mike Robertson, and Eric Cressey – three guys I know well, I've known for a long time in each of the cases, and I have learned so much information from all three of these men over the past – geez I've known Eric now for 5 or 6 years, Mike for in or around that time, and Will for about 4 years now. So, the amount of information I've learned from these guys is just incredible. And I have no doubt that you guys are going to learn a ton from them as well.

Now, let me ask the first question, and before I do, the Grasso broken record is going to remind everyone, if you're a guest on tonight's call, please press star 6 to mute yourself, because we can hear you and your background noise, and we don't want that. So, press star 6 to mute yourself, and that way you can hear us and we can't hear you. So, let me get started with the incomparable Eric Cressey, and I've called you that before – it's never lip service, it's the honest truth. Eric, in terms of high school training, you don't really have a specialty as far as has I feel. And I know you kind of get pigeon holed periodically as the baseball guy, because that's where a lot of your efforts are these days, but in terms of strength coaches preparing or in charge of high school athletes from any sport, I would put you in my top 1% easy. And I know with the high school strength and conditioning coach certification we have coming out next week, you did a lot of work for us on mobility. Having read your chapter myself, one of the things I think is the most important that coaches listening have to understand, which you did a brilliant job of deciphering was, there is a substantial difference between mobility and flexibility. So, if you could, what is that difference, and why is it important in a training situation?

Eric Cressey: Well I'll tell you there are several things you have to consider as you look at it, but we're talking about neurological control. If you think about flexibility verses mobility, the stuff that's going to jump out at you is when we talk about flexibility we're really talking about joint range of motion. And that can mean a ton of different things and a ton of different positions and all of that. But when you talk about mobility you're talking about actually the ability to get into a certain postural position. So, I can have tremendous joint range of motion and not necessarily be functional or even stable in positions I might want to acquire in athletic contact. So, if you want to look at that – you're looking at pictures. So we see a lot of kids with great adductor flexibility and great range of motion in the frontal plane or hips, and then we put them on a mound, and they push off and try to ride out their back leg when they go to

throw, and they just collapse on the front side. So, they have all of this flexibility and all of this range of motion of their hips, but they don't have the underlying stability to follow through with the front leg, to push off on that back leg, so it's not useable for them.

BG: Eric, I'm going to hold you for a second and do the "Grasso broken record" and remind everyone to please press star 6, because we can hear you and we want everyone to be able to hear clearly.

EC: So, really what we need to consider at the end of the day is mobility is flexibility with stability in that range of motion. So, it allows us to make use of that range of motion that we have in a more functional context. So, that could be pitching or even just regular squats – we can lay the kids on the ground and flex their hips and dorsiflex their ankles and get a picture perfect overhead squat as long as their laying on their backs and they're not weight-bearing. And the second you put them in an upright position and have them squat, they either tip over or they fold over like a lawn chair and you don't hit that squat as well, because they don't have the stability to really reach that position. And then I think the other thing that is important to consider about mobility is that it's very, very skill specific. What might be great mobility for a powerlifter might be entirely different for a baseball player, or hockey player, or like a goalie or skater – something like that. So, I think there are a lot of factors we have to keep in mind, but the big thing to keep in mind is that we have to have stability within the range of motion that we have.

BG: You know, Eric that was really a succinct definition, and I had a follow up question for you, but something you said at the end there made me change my mind. Something that I would like to learn from this is, high school athletes are teenagers, so we're not talking about elite athletes in most cases – we're talking about kids who are playing a sport and in many cases the hopes of the next level of competition. But you said something very interesting – that mobility is very specific to play and positional specificity, etc. How important is specific mobility in that respect in a high school setting? Given a football team for example. Eric, what are your thoughts on that? Positional or specific mobility for sport or position in the high school setting?

EC: In terms of specific examples, I can give you a couple relative to a couple of sports that we work with. In terms of general, first off mobility involves multiple joints, and I think that's a really important thing to keep in mind. I might have great range of motion in my hips, but if I don't have adequate lumbar stability, my hips are still going to be stiffer than my lumbar spine, so I'm going to move with the path of least resistant. So, that's the first thing to consider. Everything is very general in nature, because everything comes down to there's a right and a wrong way to move, regardless of your sport. So, I think some of the general considerations on the mobility front deal with functional demand in kid's lives nowadays, and historically that are not unique to individuals, meaning they're the same for everyone. They're at a desk all day – they go home and get on Facebook and play video games, and you've got young kids getting carpal tunnel because they're playing too much video games, and the text message trigger finger. So, nowadays things are different than they were in the past, and you know we've run into a whole new subset of problems. But in the same sense, some things are fundamentally the same for everybody, regardless of their sport . When it comes down to understanding how to assess kids and maybe how you would see things with some kids that you may not see with somebody else.

BG: Excellent point. Okay, let me move over to Mike for a second, because my follow up question to Eric was going to be about the strength component – how important is the strength factor in so far as mobility, and so I thought about a segue that would work that could go into your contribution to the High School Strength and Condition Coach Certification. Now, mobility is one of those things where a lot of coaches don't understand it, and they get confused with flexibility often. And I mean, Eric talked us through the ins and outs of mobility from it being not terribly specific to a joint but involving many joints. Having said all of that, strength is one of the quantifiable things at the high school level that every young athlete is pushed through. Now, mobility is something we're hoping to change as a factor of training that more coaches and trainers who work with high school athletes understand. Strength is something that everyone does. That doesn't mean they understand it though. So, I'm wondering if you could talk us through, because again I read your chapter as well – what are some of the mistakes we see being made at a high school level from a strength training standpoint?

Mike Robertson: We could literally take the rest of this show and just talk about the issues with high school strength and conditioning, and honestly, the people that are listening in – I may be preaching to the choir a little bit, there are just so many issues that we see – whether it's people that for lack of a better term simply aren't skilled, they're not strength and conditioning coaches by trade, they are football coaches or track coaches, and they kind of get thrust into their job. I think that's an issue. It's not that their heart isn't in the right place, but they don't have the same skill sets that we do. So, a lot of times you're seeing rehashed strength and conditioning programs that these people followed 10-15-20 years ago, and by all means, they're pretty archaic. But I think we've seen issues there, we see issues with the fact that too many people are still caught up in the numbers side of it. People want to be in the thousand pound club, or the 500 pound squat club, or the 400 pound benchpress club, and I mean you guys see YouTube, you see all of the things that are going on. And the 500 pound squat where the kid goes to 4 inches of range of motion and then you know – he gives his buddies all high 5's. Unfortunately, it is always going to be a numbers game. And a lot of high school strength coaches want to put their stamp on X amount of 400lb bench presses, or 500lb squatters, or 400lb power cleans. There's such a lack of focus on movement quality, and I think that's a disservice to the kids that we work with, because you look at so many of them now, and like Eric alluded to, they're getting carpal tunnel because they're playing Halo on their Xbox till 2 in the morning. So, if we put a focus on movement quality, on the foundation of better movement, and then we build the strength and power on top, it's amazing what we can do. It's hard for me to relay all of that – that's why we had such a broad scope of topics within the book, but I think at the end of the day, when we start to focus on better movement quality, holistic, intelligent programming that's a mixture of unilateral/bilateral lifts, balance pushing and pulls – it's amazing the kind of results we can get with our young athletes.

BG: Absolutely. Mike I agree with all of that. I think one of the conundrums and issues – I've always thought this about many parents involved in youth sports, and certainly many coaches. And you alluded to it as well – coaches have their hearts in the right place – what they lack is the knowledge. And in that, ignorance – I don't mean that to be a bad sounding word, but they are a little ignorant as to what's necessary. I know from my experiences in working in high school settings that most football, basketball, baseball coaches draw their concern or difficulty in so far as look, I've got 60 minutes and 80 athletes of

varying ability, how do I program for that? Now, you could spend a 3-day symposium on teaching the programmatic structure for that kind of situation, but could you give us a brief overview of some of the key points to consider when that's your situation you're facing?

MR: Yeah, you know, and let's be honest, it's not an ideal situation. A guy that I respect the hell out of is Joe Fermedios, and the guy has 100 football players come in and it's him and one other coach. So, you think their coach to athlete ratio is literally 50 to 1 – or athlete to coach, sorry. And in that situation, what you try and do, and what I would try and get people to focus on would be instead of giving so many specific lifts, maybe give them a specific lift in the sense of okay, you're going to do a squat pattern lift. So, some people, if they're very remedial or poorly conditioned, or have horrible mobility/stability like Eric was talking about, maybe they're going to start with a goblet squat. Somebody that's maybe a little bit better – little bit better background or foundation as far as training goes could perform a front squat. And your more elite or highly developed athletes, people maybe considering playing at the next level would perform a back squat. And what you need to do is kind of have progressions and regressions within your programming. Is it idea again to have 80 athletes? No, but at the end of the day, you kind of have to work with the cards that you're given. And so, if you can give them a template or the basic tools and then either upgrade it or downgrade it based on the athlete in front of you, that's probably going to be the most ideal situation that you can have in that regard.

BG: Yeah. I agree with all of that and have long said – I must have written this in our articles about 2 dozen times in the last 4 years and said so in seminars and speeches I've given that very little above the high school training situation is ideal. I mean, very little. From team context like you just mentioned there, to again, we're talking in some cases about 15 year old phenomes who aren't nearly nutritionally sound, don't sleep the way they should, are dealing with the raging hormones and emotions that the average teenager has – these are not ideal settings. And I think that's one of the reasons we were so ambitious about creating this certification specifically for coaches in the high school setting – because you're never, almost never going to deal with utopia. You're going to have to work with whatever you have and create the plans around that. So, I feel overjoyed at everything you just said, and your chapter is killer in terms of the practical information as opposed to “this is what it would look like in a utopian world” – it's never utopia, so I couldn't agree with you more.

MR: Thank you. That's what I was going to say or just kind of reaffirm the fact that at the end of the day, we can look at it through the picture perfect sense of a textbook or something you might learn in a lecture, but I think that's something that Eric, Will and myself all tried to bring to the table – there are real world/perfect situations, and then there's reality. And that's something we all work within – it's not perfect, it's not ideal, but how do you get results? How do you get those consistent successes with your clients and athletes in a non-perfect world? And I think that's something that people who are interested in this stuff will really take away from the book.

BG: Well said, and a little short diatribe on that topic for me. The IYCA was conceived as a contemporary organization that would bring a practical feel to long-term athlete development, and one that made sense. Because, I mean, I have – I am as well read on the theoretical aspects of long term athlete development as anyone in the world. I mean, I've researched it for 15 years. I've watched it in

practicality in different parts of the world where they have a better grasp on it than we do here in North America. I've interviewed and talked to scientists and sports scientists and researchers and coaches who have both studied it and worked within it, and the reason the IYCA was conceived initially was because long term athlete development is one hell of a theory, but it doesn't work in practice. But that's not because the theory itself is not sustainable or accurate, it's because society has changed. I was a high school athlete only 15 years ago, but the complexity, the differences between when I was a high school athlete and now are demonstrative. I mean, it's incredible how different it is in a high school setting. And the same with little league sports. House league is almost a thing of the past. Everything is a travel team situation now. I have a nephew who's involved in house league hockey, and yet he has 2 practices a week and still travels for tournaments. House league hockey used to be out every Saturday morning playing the game. So long term athlete development and high school strength and conditioning – there is no utopia. It's a very complex thing that we have to provide a practical angle for, so again, the three chapter authors did just that.

Let me jump over to Will for a second, because in keeping with the whole theme, Will, off utopia verses 'right' verses 'wrong', speed and agility might have some of the greater myths associated to it from a training standpoint in the entire high school spectrum. And what you see more often than not at the coaching level and the high school sports team is sprinting – endless repeats of 40's or 20's and speed being used as conditioning or lactate threshold stuff. But coaches mistaking that for speed-based work. So, I'm going to ask you the same question that I asked Mike, which is – what are they myths, what is being done wrong at the high school setting from the speed and agility standpoint? And then I'll merge into what you put in your chapter as to what's right.

Will, go ahead – what are some of the bigger myths in the world of speed and agility?

Will Fleming: This is definitely one of the things that I was really excited to do – take a look at some of the myths. And a lot of what I brought my experience from was walking into dozens and dozens of high schools when they ask you to help out and see what they're already doing. And you touched on it a little bit, but one of the biggest things that I want to dispel was the idea that linear speed training (in particular like high speed sprinting, things like that) is effective or the end-all, be-all in terms of training. The idea being that speed kills or whatever, but it's the wrong type of speed. So, I looked at some various studies on it, and it seemed to be such a small part of any true athletic competition – somewhere in the neighborhood of 10% is actually done at a high speed what you'd consider a sprint. So, it makes little to no sense for the high school athlete. And then trying to get to the point that multi-directional speed is where we're trying to direct things. One of the biggest component about dispelling some of the myths is – a lot of the myths in current training practices or antiquated training practice that you may see in certain high schools – there are things that really increase the chance of injury. At best, training for linear speed and a lot of these normal training practices are not doing an adequate job of reducing the risk of injury, so that was one big things that I wanted to look at. And in particular, like training for deceleration, and training toward a more multi-directional approach.

BG: Absolutely.

WF: Yeah, one other big thing would be utilizing one tool or approach to training for speed, which is another one where it's all focused on using just an agility ladder or just a treadmill, or just a this, or just a that. Where that's going to lead to adaptation and have limited transferability to the playing field for the athlete. And then you spoke a little bit about – and I don't want to say that I'm against linear sprint, but I think there's definitely a place for sprinting and speeding and technique, but the worst place for it is at the end of practice, where you see a lot of coaches just talking on conditioning and saying that they need speed and agility training, because the guys or girls are running. So, the fatigue state that the athletes are going to find themselves in is going to be dangerous, and if there's any sort of change of direction that's predictable and planned when it comes to agility, it has to be at some point some element of randomization to make it productive.

BG: Absolutely. Agreed on all accounts. That was exactly what I think about the whole speed and agility conundrum or equation as well. I've got one more major question for everybody, and then we can go from there and see if perhaps there's some follow up that I can come up with, as long as these lines continue to stay reasonably quiet. I want everyone listening to get a real strong flavor for the High School Strength and Conditioning Coach certification we have coming out next week that was authored by these three gentleman – how much overlap there has been between all of them in terms of understanding the true equation of training high school athletes, and seeing that speed and agility is not an isolated issue, neither is strength, neither is mobility, neither is warm-up design – it's all kind of a big long flavor we've created to make sure that this resource is both incredibly well done scientifically and theoretically but has such a strong practical component. What we wanted to answer were two questions of why you do it this way, but then also how you do it. So, Eric, let me go back to you and simply ask you this, (and talk as long as you'd like, and you may have to be prepared for me to interrupt and remind people to press star 6) but mobility is where you've concentrated your efforts for this particular resource, but how much of a role does mobility play in strength training? And that's one question I want you to answer.

EC: Well, I think they go hand in hand for sure. I mean, you can't get the most out of the strength training program if you can't get people to do things in which you need to be strong. But by the same token, if you don't have an underlying amount of strength, you really don't have mobility – and that's something we talked about with regard to mobility and stability, which is dependent on the strength. So, they are incredibly dependent, and it's hard to really separate one out from the other. It becomes a question of how much are we spending time on mobility with respect to how much we're spending time on strength training verses the stuff that Will talked about and trying to piece it all together. And I'm not sure there's a right answer. I think there's a right answer for each individual kid, and different ones are going to need more. One of the things I talked about in my chapter is that this may change over the course of a high school career. You know, a kid who's a 14-year-old coming in as a Freshman, he may be 9 inches shorter than he is as a Sophomore. So, when you go through that growth spurt, a lot of times the femurs go a lot faster than the quads. People may have restrictions in hip flexors and hamstrings, and all of that stuff that develop literally over the course of a year, because their bone growth is outpacing the tendons and muscles. So, things don't change from person to person, they change within that person from time to time.

BG: Yeah, very well said. Eric, you said a mouthful there, and one of the things we touched on, which we touch on a lot throughout this course is the whole idea of Peak Height velocity. And what happens between Freshman and Sophomore year, and maybe even more notably between Freshman to Junior year is a boy becomes a man. And the degree of change that has to happen physiologically, emotionally, mentally, cognitively, physically. Everything changes so much, and one of the things I have seen in my career of working with high school athletes, and in high school settings, is that coaches tend to apply a very similar system of training with Freshman that they do with Juniors and Seniors. And that is just such an absurd mistake to make, but it goes back to the commentary Mike had brought up about the whole topic of ignorance. Coaches have their hearts in the right places, but they don't know what they don't know necessarily. And that's a massive issue – the whole growth spurt, peak-height velocity time frame, which is nestled right there in the high school years, has such a training connotation to it. What do you do in that phase? So, man, what a great point to bring up. Mike, let me go back to you now and lob a similar question at you. How important is strength from a speed perspective when it comes to high school athletes?

MR: Absolutely, well, I think almost any good track coach worth their salt will tell you that strength in a lot of ways is a foundation for speed. And it's something that I think too often you hear about a lot of these places, and I don't have to name names, I think you guys know what I'm talking about, but some of these facilities where the whole premise is focused around speed only. And I've heard horror stories about these places where they're doing an hour or an hour and a half of speed-focused training, which is assanign in and of itself. But beyond that, then you've got strength training areas that are totally neglected. These kids aren't getting any pure strength or any pure weight room/power work done. And so, I think when we go back, look at most kids, and Joe Defranco says it really well – when you look at most kids, they're weak, they're inflexible, they don't move well. If you just get them a little bit more mobility, you get them a little bit stronger, it's amazing how much faster they get. And at the end of the day, I'm a basics kind of guy. Like why do I want to use a high level training technique with a 14-year-old kid? They don't need that. If I can give them a basic foundation of strength, power, mobility, endurance, it's amazing the changes you're going to see in their physique and in their athletic development.

BG: Yeah, that is a great quote, and I couldn't agree with you more. One of the things that I find deplorable about our industry, as it related to high school athletes, is the strength conditioning coaches, the high school sport coaches who break their own arms patting themselves on the back, basically pontificating about how much faster, stronger, or more vertically adept they got from a power perspective with their high school athletes in only 6 weeks of training. Look, it all works. Training at that age works – it's not a matter of what's effective from a bio-motor standpoint, because it's always going to be effective, it's what's best. And that's the key consideration. And that's a very, very well said point.

MR: Well, and show me what you can do over 4 years, not over 4 months. Can you produce repeatable, consistent gains over the course of an athletic career – not in a 1-month or 3-month window?

BG: Yeah. You just might have summed up the value of this particular resource in that one sentence. It's a complete resource that shows you what to do from Freshman through Senior year that is going to minimize injury, increase bio-motor optimally, but within the contest of the athlete, the support, and

everything else. That's exactly what we're after here. That was what I guess the media types would call a great sound bite, because it's exactly what we're after here. Well done, sir. Will, let me finish the trio and head to you and say we have an athlete who you're looking to make faster – how important is mobility on that desire you have to make them faster and more agile?

WF: Well, one thing in just even thinking about this call is – to me it's such complementary material. You know? Like I got an advanced copy of Eric's chapter, and started reading through it and going, man, yeah, this is really applicable, and so it's absolutely important to put that kind of – to link those two parts up, you know? Without mobility, strength is going to be limited due to the lack of correct patterning. And then without strength, we're definitely going to have a real difficult time producing any speed. For me, one of the big things about the chapter, or about linking mobility and speed together is just the ability to get in the correct positioning to achieve acceleration, to get in the correct deceleration posture. It starts from the ground up – from the ankles to the knees and hips, and having mobility and stability around each joint. And then it's going to keep the athlete safer and definitely be able to let them potentiate power, and in a much better way. So, to me it's amazing how complementary this stuff is, and how lacking certain programs are when you go into them and seeing them entirely neglect a certain area of this trifecta here.

BG: Yeah, well said. I think for everyone listening tonight – I think this call from my perspective, what I wanted to do was the intention of 2 things. First of all, to showcase the incredible vast knowledge and information that's going to be available and at your fingertips with the High School Strength and Conditioning Coach certification that we're coming out with next week, patented and authored by these three gentleman. I'm just listening to all of this information, and who wrote the chapters and created the DVDs and all of that – the programs, etc. – this is just a valuable resource in and of itself. Now, imagine how much it's going to be in this resource. But the second thing I wanted to showcase tonight was the overlap – to see how much of what Eric is talking about, what Mike is talking about, what Will is talking about plays off of each other in the synapse of the entire development of an athlete through a 4-year system in college. Now, you're hearing it first-hand – this is not pre-scripted. I have not sent or emailed anyone questions before this call to alert them of what I was going to ask. I'm putting them on the hot seat, and in front of 1200 people, and saying here, answer this. But you see how much harmony there is, and what all of these 3 guys are saying in so far as their respective specialties, as it relates to this particular resource – how much harmony there is, and how important that is from a developmental perspective and a training perspective as well. So, as long as the lines are still very quiet...I'm going to keep pushing through a few more question here for each of our respective experts.

Let's get to the topic of warm-up and warm-up design. Now, because I kind of – I always disliked the idea of having to answer questions 'what does a warm-up look like, Brian?' – because to me it can vary greatly by sport, by age of athlete, by relative ability, depending on room you have, depending on how many athletes you're working with at one time. So, I'll be a little bit more narrow-scoped with this and ask each of you guys to answer the question, what would the warm-up look like for this? We have a 15-year-old linebacker who's presented with absolutely no past injuries – never had time off of sport because of an injured ankle or bad shoulder – pretty healthy kid, but notably and terribly immobile,

inflexible, just out of the peak height velocity/growth spurt time of their life. Now, having said that, and I'm sure you guys will agree, that might not be enough information for me to answer the question accurately, because I still want to know more about watching him move, but you know, for the purposes of tonight's call – 15-year-old, just out of peak height velocity, pretty strong kid, no injury history, but really immobile and inflexible, because of their time of life. Eric, what does your warm-up for that football player look like, or what does it involve?

EC: We always start our athletes regardless of age, I mean, we basically have 13 and up in our facility. Our guys all warm them up before we start off. Not to say that I think 13 and 14-year old kids have soft tissue dysfunction on the level of some of our more experienced athletes, but I think what they do have is a very impressionable mindset that allows us to teach them good habits at a young age. So we teach them that they need to get in the habit of taking maybe 3-4 minutes at the start of a session. So, our guys will go through all of our foam-rolling stuff before we get to our mobility warm-up. As a good frame of reference, I kind of stratify our warm-ups into 3 different components – the first being ground-based. So it may be supine bridges, it may be some sort of hip rotation drill, or it may be an adductor length drill – something like that, but we start ground-based and work out way into a standing/stationary position (our secondary component, and the third would be standing/ moving). The idea being from a facility logistics standpoint we don't have to get them up and back down, walk across the facility and then come back and stop them in place. So we start ground-based, we get a standing/stationary, and a standing/moving. So an example for that age would be a supine bridge to get complete activation, to a rocking ankle roll to improve dorsiflexion range of motion, to an adductor roll to get length in that frontal plane, so the adductor gets flexed in – we want that to extend the hip. We'd bring them upright and maybe do a bowler squat, which activate glutes in all 3 planes of motion. From there a high knee walk into a forward lunge. With a high knee, you're getting some solar treatment and teaching them lines so they don't tuck under. You're also getting some hip flexion range of motion in a general sense, maybe going into something that gives hip extension in back leg and teaches them some frontal plane stability. So, you're intertwining that mobility definition we talked about earlier. From there we could do a walking Spiderman into an overhead reach, where with the Spiderman you're getting hip extension and adductor length on the back leg. On the front leg you're getting some adductor length at a more flexed position. You're also getting spine mobility and a little bit of length in the pecs. So, something like that in the sense that you would start ground-based, then get up, and then get up and moving.

BG: You know it's funny, 15 years I've spent in this industry, and it never stops amazing me how excited I get to hear stuff like that. Because I mean, I know what I'm listening to – that's just pure generous, and it's so counter what most strength coaches are doing. Eric, let me ask you one follow up question, and Mike and Will I'll ask you this follow up question as well on your parts. Let's say you have that young 15 year old for about a 45 minute training session. How long does that warm-up take in that 45 minutes?

EC: You know if you're training for 45 minutes the warm-up's going to be I'd say 10 – that would be the more general warm-up, and then during training it would be a more specific warm-up. Usually there's going to be some kind of movement like plyo, maybe a Medicine ball drill, something like that that allows us to train from the warm-up and be more general rather than more specific movements. But you

know what, like we said earlier, if you're talking about a kid who's got more and more issues, I'm not going to be shy about saying during conditioning that the warm-up may affect their training program. If you can't do a body weight lunge, there's no sense trying to hold you up for a lunge.

BG: Let me tell you, that's exactly what I was getting at – that is pure gold right there. It amazes me at how many coaches and trainers don't get it. Look, you are training the organism in front of you, and if that means the dysfunction, the injury considerations are so rampant in a 45-minute session, that the session might be one glorified warm-up, but that is what that organism needs in that day and age.

EC: To take it a step further, that's the stuff those kids are going to integrate as well. If you think about it, they may learn different training techniques and all of this stuff – they need to warm-up no matter what they're doing, whether they go to baseball practice, whether they're going onto tennis courts, to a hockey game, whatever it may be. If you're going to drill one thing, that may be the thing that's the most beneficial for them.

BG: I couldn't agree with that more. That is something that I've been preaching for forever, and I could not agree with that more. Eric, you said 10 minutes roughly, maybe with the specific warm-up in tow it would be fair to say that the entire warm-up portion of that 45 minutes might encompass 10-15 throughout. But if you think about that, we're not talking about an hour and a half training session necessarily, and if we are just talking about 45 minutes, we're not talking about kicking this kid's butt for 40 of those 45 minutes. About one-third of that training session would be considered general and/or specific warm-up for performance and technique development. That – I'm sorry – that is correct. That's the way it's supposed to be. And I could not agree more than everything I just heard there. And I hope pens are scratching across paper world-wide right now listening to what that man just said – because that's exactly the way it's supposed to be. I'm heartened that these are the three guys that we selected with the IYCA to build this High School Strength and Conditioning Coach certification, and right there is an obvious reason why. Mike, let me ask you the same question – same young athlete, 45 minute training session, what would the warm-up involve, and roughly how long would it take?

MR: I'm with Eric – when he said 10 minutes, I was sitting here nodding my head, because I agree whole heartedly with that. Honestly, if you've got 10 minutes, it's got to be bare bones, really straight ahead. You're probably going to do some real quick foam rolling to key areas: ankles, hips, thoracic, spine – maybe 30 seconds to a minute each. You're going to go through some really big bang mobility exercises like he was saying maybe a squat to stand, some sort of lunge pattern, maybe a true single leg pattern (like a single leg RDL). You could do some upper body stuff, whether it's just general, basic stuff like forward and backward shoulder circles, or PNF patterns, push-ups, so you get a little bit of rotator cuff activation. Really big-bang stuff, so you can try to get as much musculature warmed up and ready before you hit the session. But yeah, I mean, Eric and I have collaborated on enough stuff, hopefully we have pretty similar answers in that regard. 10 minutes – you've got to get in, get it done, and try and get as primed and ready. Like anything, a lot of times you're seeing these kids immediately after school, so they've been sitting all day. If you can do anything, try and get them up, get them moving, get the heart rate up, get the tissues warmed up, the joints ready so that you can hit the ground running when you start the strength training.

BG: Nice. I like the consistency of the message, which I'm a fan of. Will, if your answer deviated, that's fine, and if it's exactly the same, that's fine too. Where would you be – same athlete, 45 minutes – what would it involve, and roughly how long?

WF: Well, I'm excited because Eric's description of his warm-up matches exactly what I'm doing in my facility. So, I think if it's a 45 minute session, I wrote down 10 minutes as soon as you said it, and Eric said it as well. And we foam roll, we go to ground-based stuff, standing/stationary-in place, on your feet, with ankle mobility or some sort of Spiderman lunge or anything like that. And then standing/moving – more dynamic stuff. And then they're ready to go. And through that, even in that 10 minutes, we may not have even – they're not running, or they're not doing anything like that, but they're already significantly warmed up in that period of time when you're hitting the big bang mobility drills like Mike was mentioning, you know?

BG: Yeah, the consistency is killer, and I agree with all of you guys. Now, for me, I'll just put out an overview definition of everything. We all heard foam roll from the start, so I always call that kind of stuff "tissue quality" – we're protecting soft tissue. We're making sure that tissue quality in these young athletes is good. We go from there into ground-based mobility, and from there we rise into more mobility – integrated mobility perhaps. And then from there what I've always defined as 'movement preparatory' – so movement based stuff, like what Eric was talking about with walking knee hugs. Movement but it really is more of a dynamic preparation to move more succinctly, more efficiently. One of the things that needs to be absolutely said is don't discount the neural synaptic stuff that happens when you go through this process. You're really preparing the nervous system to be functional and accurate. Accurate is a really important part of the whole strength and speed and I guess we could qualify that as the 'performance based' stuff of your training program. Neural accuracy – hitting things properly with good stability, good range of motion – that's all neural driven. And so, what we just went through from 3 different sources who exactly said the same thing, is neural interactivity and getting things firing properly to be accurate and spot on when the 'performance' part of the program comes.

Guys, excellent information. I'm going to wrap things up, because we've been going for just under an hour now, and that's usually sort of my litmus test for how much information people are willing to or able to absorb all at one time. So, I want to ask you this one last question – I'll go the same order as I have been this entire evening so far. There's a lot of ways to look at it, and the way I've always looked at it is very simple – and I've written 3 books and probably 4,000 articles and about 12,000 blog posts, and I've presented I don't know how many seminars, not unlike Will, Mike, and Eric. And no one's ever asked me this question before, and I always wanted them to, because when you're on this end of the phone, and these 3 guys have put their hearts and souls into this recourse – the High School Strength and Conditioning Coach certification – they do it for a particular reason. And it's not what a lot of people may think it is. For me, and I'll just start here, guys, and I don't want to lead you or have you follow me you know – just say whatever it is you want to say – one of the reasons I spend my days and nights working and preparing educational information, and pushing myself to research and understand concepts better, and perhaps simplifying them so I can explain them and use them in practice, find where my own errors are, fix them, perfect them, and then deliver them to you in a different sort of way

than perhaps the theory and science has shown us is because for me it's an obligation. This is most unquestionably my passion in life. The whole youth athlete development spectrum of our industry is very much my passion. And I spend my days and nights producing educational information because I feel obligated to the industry, to the world, to making sure that our most precious demographic is cared for properly by the people who are either in charge of or being paid for taking care of these kids. Now, 15 years in the trenches, and I don't think I have to recite my bio, but I'll just say these couple of things – I've trained 2 Olympic gold medalists, I've trained hundreds of professional athletes all over Europe, all over North America, national team competitors, I've seen the best of the best. But I've also trained about 20,000 over the last 15 years young athletes from all over the world. I've been everywhere and some athletes come to me. Less than 1% of my high school aged athletes have ever gone on to an athletic career that is what you'd think of as Michael Jordan, you know Wayne Gretzky kind of notable career. Absolutely a number of them have gone onto college, some have gone onto professionals, but more often than not, it's kids who are good at sports or maybe not so good at sports, or in some cases great at sports, but I've always looked at my job as to make sure they're functional and fit for life. That's my job. And in doing so, I prepared them for sport properly. And to me it's an obligation I have to make sure this information is disseminated properly around the world, around the industry, so that our most precious commodity – kids – are being cared for properly, and that we're changing the way training in the high school setting is looked at and practically applied. So, take as long or as little as you like, Eric, and then Mike and then Will, but do me a favor – why are you excited for the High School Strength Conditioning Coach certification as a recourse to be in the hands of the people who are listening right now? Given that you put your heart and soul into the stuff you did for it?

EC: I think it's because the underlying problem is that today's kids are de-evolving. Does that make sense? Out entire industry, and our entire perspective on training young athletes has historically been very focused on progressions – meaning how do we take kids from A to B, when a lot of times what kids need are regressions – to be shown how to go from B to A and learn how to do things correctly. And I'll give you an example of that that's a good one that may be it a bit hazy at times, but if you can think on your feet it'll make sense – if you go back to when we were growing up, had you ever heard of a high school kid with a disruption to their impingement? Literally bone on bone, not a lot of rotation in the hip that would cause kids to not be able to squat. We know that every baby that's ever born learns how to squat. They learn how to squat deep through the neutral spine as part of normal childhood development. Something happens between the time of childhood and the time that they become a regular teenager to have this sort of an underlying structural abnormality. What I can tell you is, we've gotten better at MRI and x-raying hips and looking at these things and evaluating them, but this injury just was not present in the 70's and 80's, and nowadays I see kids with this walking through my door literally like every week. There's something that's going on in kid's lives that's making them de-evolve. And some of these kids are walking around and don't even know it's there – we're talking about how bones have reshape somehow during the course of normal childhood/adolescent development to make a kid structurally different than kids were 20 years ago. And I don't think that programming we have for kids has taken that into account – whether that's for 8 and 9 year olds or whether that's for 13 to 18 year olds who are already having issues present. So I think what makes me the most excited about the resource that we've all collaborated on and put together is that it is something that's up to date and is dynamic in adolescent

development that's now very dynamic compared to what we're used to seeing. It's also an adolescent tool that goes to a whole new level of challenges of a new generation. So it makes me excited.

BG: What a great answer – the de-evolution of children. And you're right – people may not want to hear it but it's true – things have changed. I mean, we used to play as a natural course of living. Kids don't play anymore. Over competition is unbelievably unbearable. And combined with over competition you have more often than not overzealous coaches and trainers who don't have the proper knowledge or recourses in front of them in charge of the progressive training of these kids. But they're not organisms that are prepared for it, and that might have been my champion call back in the day, 12-13 years ago, when I started realizing how little I understood long term athlete development properly . I used to say that if the organism is not prepared for what you have on the clipboard that day, then what you have on the clipboard needs to be put away. I think that was as well phrased a commentary as I've ever heard, Eric – that was outstanding.

Mike, let me ask you the same question. Why are you excited for people to get involved in this High School Strength Coach Certification?

MR: You know, I think there are 2 reasons I'm really excited. Number 1 is I think this is going to encompass a lot of things. It's going to answer a lot of questions that maybe people have – people that want to get into the industry, they want – their heart is in the right place and they want that foundation, and they want to learn the science and practice behind this stuff. A lot of the stuff I didn't learn, you know? When we learn exercise science undergrad, we learn how to take body comp and heartrates, and blood pressure. We don't get to learn how to train athletes, how to write great programs, how to incorporate mobility and speed and agility and strength and conditioning all under one umbrella. So, number 1, I think it's going to give us a really good recourse for people that are passionate about this stuff and want to get better. And the second thing I'm really excited about it, at the end of the day, this is real world information. If you read my chapter, it's not like a thousand research articles, and that's for a reason. I'm citing books by people that have trained athletes, or people that have a foundation of working with athletes, because those are the people we really want to learn from. I spent two and a half years in a research-focused setting, and while it was great and I learned a ton about cultivating research and how to...I learned a lot from my time in a University setting, but at the end of the day, if you want to work with athletes, if you want to make athletes better, you need to learn from other people who are working with athletes. Eric, Will, myself – all of the people that are putting their best foot forward and trying to make a difference are going to have detractors, but I think anybody that knows us knows that we're passionate about helping kids. We're passionate about taking our skills to the next level. So, I think this is really going to be a huge push for the entire industry to help coaches such as ourselves, such as you guys listening in, to really step your game up and take your understanding of performance and athletic training to the next level.

BG: Yeah, I agree. You said a mouthful there, but I'm going to actually go ahead and let Will finish off, and then I'll circle back to finish our call with a bit of a segue off of one thing Mike said – I really like all of that by the way. Will, why don't you go ahead and finish up for us – what makes you excited about getting this recourse in the hands of everyone listening tonight?

WF: Well, you know, I think that this is going to really for me training and doing what we do is you have a real big passion for helping athletes, and I think that we're all trying to help an athlete reach his or her potential, and implementing these programs are going to truly allow athletes to reach their potential. They're going to be able to be on the field. They're going to be able to succeed on the field or court like they haven't before. Just taking some of the stuff when we were first putting this together and applying it to some of the larger scale teams that I was working with this fall, coaches came up to me at the conclusion of the season and said we are faster later in the season, we are stronger later in the season, and we were healthier than we've ever been before. And right there I knew that what we had put together was something that was going to be really, really beneficial to all of the athletes we work with.

BG: Absolutely. Man, well I tell you what guys, I will not spend any longer than about 40 seconds finishing off tonight's call. Let me first start by thanking everyone listening. We had a bit of a tough 10 or 15 minutes there with the whole star 6 and making sure everyone was muted, but we got past that, and this has been an hour chalked full of incredible information. But I want to thank you for taking the time to listen. I most certainly want to thank Eric Cressey, Mike Robertson and Will Fleming for taking an hour of their night to impart great information on the folks listening, myself included – I learned an absolute ton. So thank you guys so much for taking the time to do so. And let me just wrap up by saying this – Mike touched on the fact that Eric, himself and Will have some detractors. I'm not sure there's a person in this industry who has more detractors than I do, and I'm perfectly happy with that. I've always thought – they only tackle the guy who has the ball. And I say sometimes things that people don't want to hear, but I know it does force them to look in the mirror. The High School training setting is a mess. And we have to be responsible, and if we're not going to be responsible, we're culpable. Injuries are on the rise. The entire situation of high school training is a fixable commodity, and in order to have that happen, a revolution is necessary. And I've been called everything from a heretic to a maverick, to everything else in between, and I accept those titles with great pride. A revolution is all I've ever wanted to start with the IYCA, and we need one. There's research, and I just read last week – somewhere in the neighborhood of 30% of 9 month old babies in the United States right now are considered overweight or obese. Three and a half to four million young athletes get hurt at high school, organized high school sports, every year in the United States. We are talking about a time in our society and in our history where it's revolution does not happen. And revolutions folks are not quiet. They're led by and orchestrated by people who are willing to make noise. Because they know that things have to be different. These three guys, myself, Dr. Toby Brooks, who edited the entire High School Strength Conditioning Coach certification recourse, who's a professor at Texas Tech University – I mean, we're talking about the best of the best. People who are in the trenches every day, working in this setting. An adjunct professor at Texas Tech, who is an incredible mind when it comes to all of this stuff from a practical and theoretical perspective. We spared no time, no expense, we spent nothing on making sure this was the greatest recourse possible in an untapped market in terms of no recourse exists right now to quality and quantify what needs to be done. It's a recourse of practicality. It's a recourse that explains why and how. It's involved with a textbook, DVDs, sample programs, everything you need to walk into a high school setting or have high school athletes to walk into your facilities and help them to succeed by minimizing the potential risk of injury and maximizing performance. Revolutions are necessary, and I'm very happy to be part of this one, and want to spend again 3 more seconds saying thank you to Eric,

Mike and Will – not only for tonight, but for your incredible wisdom and knowledge that you've put into this recourse. It'll be one for the ages, and one that goes down as the starting point of a brand new day in this industry, and one that's very much long overdue.

So, boys, thank you so much for your time tonight, and thank you so much for getting involved in this High School Strength Conditioning Coach certification as well.