Welcome to the compete like a champion podcast. You're here with Dr. Larry Lauer, mental skills specialist, and coach Johnny Parkes with the USTA. Today's episode we've got special guests, Dr. Mark Kovacs, which for most people in the tennis community, you will know him or have heard of him and if you haven't, you're probably living under a rock. But Dr. Mark Kovacs is a high performance expert sport technology consultant, performance physiologists, researcher, professor, author, speaker and coach. That's a lot.

L: That is a lot. He's probably doing too much.

J: You're probably doing way too much. But basically master and commander in chief in all things important. So Dr. Mark Kovacs, thank you for joining us.

M: Boys, really excited to be here with you looking forward to it.

J: Awesome. Awesome. So just before we get going, I mean I'm summing, I connected with you on a couple of years ago with your ITPA in the certification. I thought something that was very valuable but not only for tennis coaches that wanted to get more involved with S&C athletic development, but, but also for S&C coaches that wanted to get familiarized more within tennis. Personally, I'm interested in like coming about that certification. Why did you come about that? How did it come to fruition?

M: Yeah, I mean the international tennis performance association was started nearly six years ago now and it was a group of us that were sort of in the healthcare sports science, sport performance, strength & conditioning world was we would get seeing a lot of really good folks trying to train for tennis fitness, but didn't have a resource to get good information, evidence based, research based on how to train tennis players effectively. So we put together originally a group that put together the curriculum, the levels of certification to try to give people a pathway to get information to help them train tennis players better, whether it's from the coaching side. So it's not about how to teach tennis, it's about how to work on the physical aspects of training tennis players for coaches as a level for them. And then there's also a level for individuals that have more of a health care or a sport science background that goes into a lot more detail.

J: Yeah, it's great. I mean, I, yeah, I took it a couple of years ago, I thought it was extremely valuable, very knowledgeable and I thought for those out in the private sector wanting to advance their knowledge I think is something that's perfect and is much needed in the market. But that's great. But we'll let, let's move on to today's episode we're, we're calling TNT technology in tennis. Um, I know Larry, you've got a, you've got a lot of questions here about, about the use of technology. I'm going to kick it over to you and that's...
L: Well, when I think about, okay, I need some, some information one of the first people I think about is Mark because he seems to know a lot about a lot of things. So I don't know how much time Mark you spend everyday reading and uh, you must spend substantial time researching these things every day. What's, what's a normal day look like for you in terms of what you do because I think, not just player development, but a lot of organizations look to you to give them the latest reviews on whether it's technology or, or the, the serve in tennis or these things. What does your normal day look like?

M: Yeah, no, that's a great question. I mean, I have a lot of fun with the stuff I do and I jump around from different sports and different projects and specifically on technology. I got into that, uh, when I was actually a PepsiCo and Gatorade, uh, I had two roles, was directing the Gatorade sports science Institute, but then also was in research and innovation for PepsiCo in a technology area. So we were scouting, it was called technology scouting and looking at every piece of technology that could potentially help athletes. And it was from sleep to recovery to training, to nutrition to anything that was related to that world. So that's sort of what really brought me into the tech world. And that was, you know, six years ago or so now. Uh, and the big thing there was since then, it's like the field moves so quickly. So my day to day looks very different. It's not very consistent at all. But there's always looking at companies being around different experts from a technology standpoint because whether it's baseball or golf or soccer or football, they all need different things. So the same technology that we would use, say in tennis is going to be somewhat different. Many times to the technology we are gonna use in other sports based on the demands based on what's needed. So that's where he spent a lot of the time, still read a lot of the research literature, the challenge on a technology standpoint. And most of the time the companies are head of the research, of the published research just because of how quickly the field moves. So you have to look at the research and then also see what companies are out there with technologies that make sense. And one of the big things I'd try to make sure is that the technology is valid and reliable because bad data is worse than no data. And that's one of the biggest problems right now, especially in the tennis world. We have a lot of data that's coming out. Much of it is bad data, and we have to be really careful about how we use it, what we're doing with it and how accurate it actually is.

L: So that's a great point and part of what we've been discussing on this podcast on multiple episodes is how does a coach know what to trust, right? So what's a few pointers for a coach who's looking maybe to use a certain technology or to apply a certain concept in their training, for example, in a and the reading in this area, what should they look for to know that it's valid, it's reliable. What would you suggest?

M: The, the biggest thing they need to do is whether it's a tennis specific product or a general technology product, is look to see has there been a validation and or reliability study done on that product? If it's a high level technology, they would have done that at some form or fashion and the
company's going to know that, they're going to use that as part of their marketing to show that their products valuable. If there isn't anything like that, then you have to be a little bit skeptical about what the data is at this point. It may be valid and may be reliable. It's cause you need to find out where someone else is using it. If they've been using it a while, do they feel confident that the data's consistent, that they're getting what they need? Because the biggest problem I've seen in all the sports over the years, there's a lot of companies will get a lot of traction early on because it's new, it's innovative, it's giving you a metric or data point that you haven't had before and then they realize it's really a useless piece of information because it's not correct. If it is, occasionally it's not correct enough. That's the reliability issue. And that means if you're doing baseline and followup testing or you're trying to monitor an athlete over the course of a period of days or weeks, you gotta be confident that the, it's measuring the same thing each time. And that's probably the biggest problem we see in a lot of these technologies.

M: So would you, Mark, would you say that a number of pro sports organizations and have gotten burned by technology or have used technology, now I think about drafting players to evaluation of your, of your, your system, you know, like baseball, your, your minors and what metrics you're looking at with your players or have teams gotten burned and what's sort of the overall approach and maybe a pro sports organization. Cause I know you, you've worked in major league baseball and you've worked in a number of different sports. So

M: yeah, no, I mean every sport's got a very different focus like you know, player analytics from a perspective of, you know, drafting them or player development, which applies to tennis as well as how can you predict the future using numbers. And there's a lot of components of that that are very valuable. Every organization has screwed this up. Every single one of them. Um, they've, they've missed on players they should've taken, they've taken players they shouldn't have taken. And that's because the human body is complex, right? And set of data. One set of data is not going to give you the answer, but what's happening, and this is where artificial intelligence is coming in, machine learning is coming in, predictive analytics is it's realizing that the more data we get, the more accurate our predictions can be and we need physical parameters. We need mental parameters, we need on field, off field, we need lifestyle parameters and we need genetics and we can get all those now to some extent using data. The challenges, no one's doing it very well at this point, so we're taking pieces. It could be on field batting percentage in baseball and things like that. That's one data set. That's not a good enough data set to make million dollar decisions off. Yet, it's all they had when they started the Moneyball concept. Now they're adding all these other pieces to it that makes it more accurate and that applies in all sports.

L: So it's truly multiple challenges, not just of getting good data, reliable, reliable, valid data, but also how do you bring all this data together and turn it into an informed decision? Right. Which I think a lot of organizations struggle
with. I mean I just think about after 9/11 trying to get all these different sources of information together to figure out how do we stop another terrorist attack in this country. Right. And they were dealing with the same situation, multiple data sources from different places and how do you get that talking to one another so it's not overwhelming and you can actually get to an informed decision. So it seems like the sprout pro sports organizations deal with something similar, right?

08:36

M: Yeah. And then the challenges, there aren't that many people that around the world that are skilled in this, they have technical expertise in one area, let's say they're really good on the physical components or they're really good on the mental components, although a great data scientists, but you need all those people working together. And usually someone needs to quarterback that and they need to have a really broad base knowledge in all those areas to be able to know what's good and what's bad, what needs to be added and things like that. And that's where a lot of them struggle because it's such a new field that a lot of people are getting promoted into roles. You know, that they have really no background in, like a strength coach that's promoted to a high performance director or a physical therapist who's a great technician, promoted to a director of analytics and performance and hell. And they're asked then to do all this stuff that they really don't have any training in. And it's very hard to get quality training because it is so new and it's moving so quick. So we've seen a lot of places screw up by trying to be innovative, but not hiring the right people, not, not understanding the complexity of it and trying to use one set of numbers or one data set to then predict extensively above and beyond what that's actually telling us.

09:46

L: Yeah, I remember, uh, and I won't say who it is, I don't wanna hurt anybody's feelings, but I probably wouldn't listen to this anyway, but a hockey coach one time, you know, this is going into the pro level, but would say, well, I'm gonna use this one personality test and that's what I'm going to rely on on the mental side. I'm like, really? Now you're not going to interviews or other tests or just a personality test. One one test is you that's telling you what you need to know. In my I, I just don't agree with that. It's too simplistic to, like you said, things are way too complex, too many different data points to rely on.

10:16

M: And, and that's a big morning as well for folks that are looking at technologies cause the technology companies, and I deal with a lot of them, they're try, you know they usually have one or two data points that they're measuring. It could be [inaudible], it could be something like a force play. It could be, you know, something that measures, you know, whose sleep it's measuring one or two variables and they usually, the good ones are doing it really well. But a lot of the challenges for many of them is they're trying to use that piece of data to predict a bunch of other things that it may relate to. There may be some correlations here and there, but there isn't necessarily a cause and effect. And we have to really know the difference between, Hey, we see relationships here between some of this data, but it could just be noise and we have to know the difference between reality and just noise. And that's the
challenge for the consumer, the coach, the trainer, whoever’s using that data. You can't cause look at a screen of numbers and take it for granted. You have to have a back end knowledge a little bit to know is it accurate, is it telling me what I need to know and can I make predictive decisions off that?

11:18

J: Well, I think that's the key in organizations, right? Because we talked about that there's so much technology out there and if we don't, if you don't hire the right people then you can kind of go down that whole where the organization’s making all their decisions about their coaching or their teaching and how they’re developing players or working with players purely off the research, purely off science and all the data that’s flooding the market, you know? So where would you say is that relationship between the use of technology but still developing the art of coaching? How should a coach maybe use technology or how should technology be developing the coaching side of it?

11:50

M: Yeah. No, I mean it's a great question and experiencing coaching is the most important thing because you've seen it in the real world, in real life examples. You've seen the positives, you've seen the negatives, you've seen the challenges. That still needs to be a priority and the good organizations I think recognize that the ones that have gone too heavy in the tech and the analytics and have taken out the best, what we call best practices is where you screw up a lot because the data is really valuable, but it's valuable purely for the sake of information and coaching throughout history have used information to make their decisions. They've used their visual responses to see how players are doing. They ask them questions or verbal responses, how you feeling today, you tired. Things like that. That's been going on since the beginning of coaching. The technology's just adding more information to that. So the people that are scared of the technology don't understand how to use it and don't understand that it's no different than them asking a question. It's just a machine or something giving them a piece of information that they didn't have before. So that's, I think the biggest thing is that it's not one driving the other. It's yoga is trying to get great information that makes you as a coach or your organization make better decisions with more quality information.

13:03

J: Yeah, I knew it seemed like some of the good coaches out there that maybe talking about Ivan Lendl or [inaudible] they've have been very vocal about using hawkeye data from Grand Slames or any tournament's or as a way of then driving some of the practice on the courts with their players. They see that their first serve percentage of points one is down. So that's something that they may go work on and figure out a precious scenario that can create that or you know, not making enough returns on second serves, things like that that then drive the way that they go out on court. And Ivan talked about actually putting numbers to it on court, but then you had some coaches that would, you know, want to maybe add in more of that art of coaching. But you know, I see it more and more when you, when you see some of the commentators on TV, especially those that are also coaching some of the top players, they really are using the data a lot more to help drive their coaching and and but whilst keeping their,
you know, keeping their knowledge in their eyes a part of a part of everything that they do as well.

M: And that's what makes them great coaches. The challenge in tennis is the data's really bad. A lot of it, it's not very in depth and it's not correlated with other factors very well. So it's very, very simple. Just like serve percentages and returned positions and different things like that. There's a lot of factors that go into it. We're not monitoring fatigue ever on a match. We don't have the ability at the moment to monitor fatigue in matches. So you don't know what the causes is. A strategic, you know, decision that's being made. Is it a fatigue related factor? Are there other things going on? So the problem with a lot of the data is it's one narrow data set and data points sometimes and you're trying to make bigger picture decisions off that. So we need a little bit more to the data, but it's a starting point. And don't forget a lot of coaches, we all know, many of them don't want a lot of extra info that they're comfortable in the worlds that they've grown up in. Most of them, this is very new to them, so we can't overload them with a lot of data. And a lot of the good data scientists, data analytics folks are smart about it. They analyze it all and then give the coach a two or three bullet points or give the player depending on how it's working. And that's really the art of coaching is you take in as much info as you can to help you as a coach. And then how do you summarize that in two or three data points that a coach and or a player can easily put into practice?

L: That's an extremely valuable role in a sport organization because now you're talking about the data, but then the interpretation of the data, and I've always said that there's data and then there's how we interpret the data and those are sometimes two different things. And even if you have a, let's say a high performance director who is boiling it down to two or three things, now suddenly there's a filter in there that wasn't a coach's filter. Right? So the trust, it has to be there, there has to be a, a communication, there has to be an agreement upon. What are the most important factors that you're looking at? I mean I was just reading about again about the Cleveland Browns issues when they, they put in analytics and put a lot of effort into that. And then I think the pendulum kind of swung back with Shawn Dorsey, the new GM that we're not doing analytics. That's for nerd, that's nerd stuff and now they're kind of swinging back to the middle because they're, I think they're doing what you just said that you need to do is using the data to inform in a smart way. But it's not the only thing we look at, but we're also not just relying on the coach's eyes as well that we can actually pick up on a lot of things that we're not even aware of. So with that in mind, Mark, if you were starting a pro sports organization right now from scratch, what technologies, what would be the most important things that you would implement as simple or as, as much as you think would need to have happen?

M: Yeah, no, which is a really great question. And you know, I'm been fortunate to be around a lot of these organizations and I actually helped with some strategic restructures for that purpose. How do you make it function the most effective way possible with appropriate technologies? And the biggest thing is,
like everything else, is the people. You have to set up the structure where the leadership group is all aligned on how you are going to be implementing the analytics, the technology and it needs to be coach driven from a perspective of what's the coaching philosophy and then how do we support the coaching philosophy with data that will either support what the coach is trying to accomplish or if there's data that is in opposition, then the coach has to be willing to look at it. They may not immediately make adjustments but they want to look to see information is valuable. That's what this is all about. How do we get the right information in the right way, but from a general structure standpoint, you need your sports science area or what's called the high performance area in a lot of places now integrated very well. Meaning that there needs to be a platform. Sometimes it's called athlete management system where all the data goes in one location and there's a group of folks that are analyzing all those data to make sure that we're using that information effectively and then it gets processed in a simple way that you have the report for the high performance type director role that is complex in detail, in a lot of detail so that they can really pass through that and get the good information. And then there needs to be a summary report which is very simple based on the coaching philosophy and that's the important myths where a lot of places struggle is the coach knows what he knows and knows how he likes it and you have to create the environment to give him the info in that response. That's appropriate for a small team as well, like a coach and a physical therapist and as a strength coach and things like that. But from a tech standpoint, yeah we need to monitor both internal and external load from a physical capacity and external load is sort of how far do you run, how fast have you run, stuff like that. Internal load is a lot of the time with physiological capacities or heart rate is an obvious one. And then muscle activation. So we do a lot of stuff looking at how do the quads function in real time, how do the hamstrings function, how do the glutes function and when are they fatiguing. So the internal fatigue metric is really important for athletes cause the external load doesn't give us that. GPS doesn't give us that. Distance covered doesn't give us that. That just tells us what's happening on an external perspective. We don't know if the athletes responding well to that or responding poorly to that load. So internal and external load monitoring is paramount and you need both. And then you also need a psychological cognitive component to it to look at nervous system function as well. Looking at how well they're functioning from day to day. Some people use the term readiness. Do they, can they provide explosive power consistently from day to day. Otherwise they're telling us that their nervous system is fatigued. They can't produce the forces that they need. They can't produce the powers that they need. Then you'd want to adjust training based on that. And then we also have a lot of areas related to sleep and recovery, which is most of what an athlete's life is. They only train a few hours a day. The rest of the time they're sleeping or they're recovering and making sure that we're monitoring and measuring their recovery parameters and optimizing that through nutrition, through hydration, through sleep, through the various recovery modalities. So you've got to hit on this in a very systematic approach, but it has to fit within the culture that's being set by that team and that organization. The coach has to be the driver from a philosophy standpoint. Otherwise none of this works. And
then the high performance departments need to filter the language and the
discussion through the coaching philosophy to make sure that that information
gets to the people that it gets to in the way it will be responded the best. And
that's the biggest challenge cause you bring in these high performance
directors, these smart folks that want to do it their way and their way maybe
better honestly, but if the coach doesn't buy it and doesn't understand it, it's
not better. And that's where a lot of them kind of get stuck because they want
to go in and do it and they're like, the research says this and the science says
this and we're going to do it this way, but the coach has been doing this for 20
or 30 years, had great success. They don't use a lot of that same methodology
but they're doing it really well. So all you have to do is use the language of the
coach, feed it through their vision and their structure, make it fit with how
they see the world and then you'll get great success in it.

21:05

J: It would seem like it would be an amazing a partnership between the two
positions. If they could come to some sort of cohesion and at one side, helping
the coach learn about the sports science side and the coach helping the
performance director learn more about that intimate setting with players and
how to actually work with players. It would seem like that would be the
perfect...

21:24

M: And it does. I mean there are, there are places that do it really well and I
think it comes back to that growth mindset concept. You need both sides of this
equation to be willing to adapt, to be willing to shift, to know sometimes you've
got to lose the battle to win the war. And it's a really important concept because
a lot of the stuff isn't life or death. It's, it's personalities. It's, Hey, this would be
better, but I'm willing to give you that if that's really important to you, as long as
we can do this in the future. And it's just negotiating a lot of the time.

21:52

L: Yeah. All right. Now, as I think about that Mark, then you look at the top
players in tennis. So if we bring it specifically to tennis and to some of the best
players in the world, what do you think that they're doing when it comes to
technology? Because you would want to think that they're in the cutting edge,
but maybe they're not. So what do you see? What do you know in terms of that
what the top players are doing in this area?

22:12

M: Yeah, I mean the, the sad part about tennis is you have so many folks that
are underutilizing their potential, I mean excessively under utilizing their
potential based on them not doing any of this stuff that we're talking about or
done one small piece and not really understanding how to utilize it. So it needs
to be a holistic approach that takes care of the most important variables. First
off, you need a full needs analysis on the player play. A needs to know
strengths, weaknesses, where their opportunities exist that through some type
of testing that could be just watching them. But it's usually more advanced than
that. Cause you do, I mean, you see a 2% difference in jump height between left
and right legs in a tennis athlete is pretty significant. Yet if you don't correct
that, you're going to move slower to one side than the other. And that may not
show up on a lot of stats, but you may see more errors on the backhand side.
than the forehand. Right? And then the coach is like, well let's just hit more back ends. So they hit more back ends and they get better at hitting back ends, but they're still slow on that side. That's not going to help them on their stats sheet very well. So they've missed an opportunity to make a very simple correction cause get them a little stronger, a little faster on that movement. But without testing, you don't really know that. And that's where most of the tennis players aren't taking care of those details as well as they could. Uh, and that's I think the big opportunity cause many of them are using certain pieces of info. But a lot of the time it's pretty random. Like that, we'll try something and then they won't use it. One of the big things I always try to a lot of these folks to do is if you, you want to make sure you're testing stuff, but if you're testing it, you better be monitoring what you tested and then if you're monitoring things, you better be retesting to see if it's improving. If you're not doing those three things, there's no point doing any of them. So it's sort of that relationship about test, monitor, retest and that cycle continues. So you're making improvements. Cause if you're not making improvements, we're not getting the results that we want.

24:10

L: So if Johnny, maybe you're going to ask this, but I'm a coach. Let's say I'm a coach of a 12 year old player. So let's boil it down to who some our listeners are going to, our listeners are going to be. This is interesting, but I don't have a lab. I don't have the ability. You don't have an S&C coach full time. I don't have a physiologist. What should I be doing? You know, on a very simple way that can still take advantage of technology, but I can use it in an effective way.

24:35

M: Sure. It's a great question and a lot of the stuff that's out there is now very accessible to the coach anywhere in the country. There's very low cost options or free options available. Ones as simple as charting matches, whether it's using something like a Dartfish software that can chart a match. That can be done very easily just to get, you know, 10 matches or so and get some statistics on your player to figure out are they making more errors on the forehand or backhand, what's this a percentage, things like that. So getting some basic match data is probably goal number one for a lot of these players. Understand what the player's doing good and bad, figure out their game style, where their strengths are, where their weaknesses are. Then from a physical standpoint or we do at a tennis fitness combine and it was designed for this purpose. It was like coaches around the country who are asking, well I don't really know what my players at. Are they good? Are they bad? Are they strong, are they weak, are they flexible? What, what's good look like was really the problem. So there's a 14 test battery that takes less than an hour. You do it, you know, we recommend doing it every three months so that you can test them four times a year. You monitor them, you see, okay, you're weaker on this side than that. You don't have good upper body power but your legs are pretty strong. You know you're fast but you don't have any endurance and it tells you where they're at and then you know, okay, I'm good at those four things but I'm not so good at these three things. I've got to focus on these three things to get this level up. So that's the physical side. Then you've got, you know, are the other areas from the, your mental skill side where you have to understand, is it a pressure issue, is that a tournament issue? Where are the limitations that are
showing up? And then devise the plan to work on that. So you know the technical, tactical, physical, mental four buckets is still a good way to approach this and make sure you’re doing some basic testing in each of those four buckets and then having a monitoring program to see based on the testing results that we do. Are they making the improvements based on the coaching that I do because that's the biggest thing is we want results. I mean I think every coach and every player wants results and there needs to be accountability on us as coaches and that's the best way to have accountabilities. Test monitor. If they're improving, great, we’re on the path. If they're not improving or not improving fast enough, then we got to adjust our training and that’s I think where a lot of coaches are scared a little bit. They're a little bit scared to figure out where their own coaching weaknesses are from the standpoint of, Hey, if I do all these testing, then I’ve got results. I see, Hey, I’m not producing the player as well as I could or they’re not improving as much. And I go back with them a lot and say, no, this is a benefit for you. Because you can say, Hey, we’re training all the right ways, but they may not do as well in a tournament. They may get a bad draw, they may lose a couple of matches, they may be sick, but you can then show the parent or whoever's there to say, I know we haven’t had the greatest tournament results right now in this little block, but we’re improving on all these variables that we’re training. So over time that should help them.

27:27

L: And it should help to investigate what actually is going on, what the, the ultimate and coaching is getting to the core of what's actually going on, right. Where I need to target and be specific about the changes I need to make. Right? So you have a kid like that, maybe it's sleep, maybe it's nutrition and you all know. So then you're just taking shots in the dark, right? And, and one approach is just to try and do everything you can well, right, and then just have a nice base, you know on the mental side have between point routines and how you prepare your visualizing before you go in and that kind of stuff. But then as a coach you're trying to target and figure out specifically what is the core issue. Cause there's probably a lot of surrounding issues, side effects, but there's usually probably one or two core things that if you were to get it that you'd actually get to the change you'd want to see.

28:09

M: Yeah, no, I think it's really, really true and very, very important. I think the biggest challenge for a lot of folks are, we hear this term build the base in all these different buckets. It's a throwaway term. It doesn't really mean anything. You know, we, everyone needs a foundation, everyone needs quality work at the base level. But building the base as a strategy is kind of like, I'm hoping they're going to get better. We want to make sure that it's very specific, especially at the higher levels, high levels of competition. We have to make sure that we have a systematic process that we know how we're functioning, but it has to be individualized. If it's not individualized, the athletes aren't getting what they need or what they deserve. And that’s, I think the big challenge for a lot of coaches around the country that have programs, they have good sized numbers, they think it's hard to individualize. And in some capacities it is. But the majority of the program can have a systematic kind of standardization. But
we need to have 20, 30, 40% of it individualized for that athlete. Especially if you're talking to high performance.

29:10

J: Well and, and to get into that, I mean I think coaches as well have to maybe slightly altered their mindset cause it's easy to try and look at something, something visually and see something wrong, whether it's technique or tactically, Oh I played the wrong shot, but what's harder is what we don't see. So, so talking about those other buckets of what we don't see. So physiologically it might be something, yeah, like you said, so can jump higher on the left than the right. That affects them to one side. That might be the reason, but we don't necessarily see that we just see missed shots or you know right before a big point they have that doubts in their minds that they're going to double fault and self fulfilling prophecy, they double fault. So there's, there's some of these things that I think, and again, I, I've mentioned before that I don't think that we necessarily need to be experts in every single area of, of, of developing a player, but certainly having very, very good understanding of those areas. It is a prerequisite to being a good coach so that you do understand how to build the base from all fronts, not just from things maybe we see from a technical side or a tactical side.

30:09

M: I think it's a really good point. The greatest coaches in tennis are generalists, they're not specialists. They're not, you know, the greatest competitive coaches that work with great players, aren't great specialists. And most of them will admit that. They're like, I'm not a great on technique or you know, I'm not so good on the physical side. But they bring in those specialists to help them to do what they don't have and then they use that information to own the program.

30:37

J: Yeah. So, and it's almost counter culture at the minute because everything is, you know, especially the past 10 years seems like going down the specialist's routes, right? We have specialists upon specialists and and so what it really comes back to then is making sure that look at the higher levels of the game or even developing performance juniors wherever you, you know, however you wanna term that is, you need to be a specialist at being a generalist.

30:57

M: For sure. And that's, that's an important skill because you're the quarterback, you're the coach, you're the manager, you're the CEO of that players lifestyle a lot of the time. And you can't be great at all of the things. I mean, cause you're gonna miss a lot. You don't have time, you don't have the knowledge, you don't have the resources to you to be great. That's why bringing in the specialists is the goal of good coaches and working with good folks in your local area that are skilled in it, those areas. But you have to know enough of which people to bring in when to know that they're overstepping as well. Cause that happens a lot where you know, physical therapists may come in to look at, you know, injury prevention techniques and then they start telling them how to do all the strength and conditioning and you had may have problems there or you have a C, you know, a technical coach comes in to help someone with their server, their forehand and then they start getting into the whole tactics and strategy world, which is not what they were brought in for. So you've got to
L: That's some good advice there Dr. Kovacs because I think, uh, working in teams and communicating probably still is at the heart of this, right, is if you are working in a team and you bring in a PT to help and as long as that person's talking with the S&C and the physio, maybe you have one and you're all kind of working together depending on what your team structure is, everyone knows their roles. But then you need to know who's at decision maker at that point, right? Like I'm going to take that information in, now I've got to make a decision. Right. And I think sometimes that's never made clear in these teams, especially in tennis, and ultimately in my mind it's the coach who has to be that exception, the executive decision maker that okay, as the S&C coach is telling me this, based on this information, I agree because I trust in that person or I'm not sure in this so I need to go ask more questions, right. That to me, that's the team working well where a lot of times I think power struggles, overstepping, uh, not clearly defining roles. This actually undermines tennis players. And I know, I don't think that in tennis we truly understand the value of that team approach.

M: It's so important. And the biggest thing you always have to say, what's going to make this player better? That needs to be the number one question discussed every day. And that hopefully removes say ego out of the discussion. It's not about me as a coach or a trainer or a therapist or whoever. It's about, we want the best decision for this player. And I may in my specialty think X, but for this player, Y may be the better option. Even though I do X with 99% of my other players. Y for this athlete may be a better option. But you got to have information and that's where it comes all the way back to the technology piece and monitoring. You've got to make those decisions based on facts, data, info and it can't just be, well I've done this for 20 years with 20 different players and it's worked for most of them. And that by itself is not a good way to make a lot of decisions. It's a good way to have a bias and have a preference for a way and that's, and you're going to explore that way. And for most athletes that may be the right way, but for some that's not going to be the right way.

L: Well let me go on a rant here because society, I want to get your thoughts on this, is going that route. I see it. Therefore it is or I thought it. So therefore it is. And kind of disregarding science these days and actually not putting our faith in research and scientific principles. Do you see that and what are your concerns down the road for us?

M: Yeah. No, I mean I think that's a very important discussion point because there is a lot of people getting a lot of credibility without having facts or data to support it. Right? I mean it's who screams allowed us sometimes, you know, it's not what's the quality, it's, it's who's loudest and that's problematic for a number of reasons. In the short term that's really frustrating. In the long run, I don't really care cause I know that the stuff that's going to work is going to provide better results and over time people want results. So it doesn't really concern me too much and I don't have a big problem with that, that that's been
around throughout history, snake oil salesman, all that concepts of people just saying stuff and being a good salesperson and marketing, well that's going to continue throughout history. So, but you got to get results at some point. So in the short term it's gonna impact people. People are gonna get taken, they're gonna make bad decisions. They're going to listen to the wrong people. But over time, the individuals that have skills that do it the right way, that get results, again it'd be valued even more. So it's one of those scenarios where over time, and I think it's, it's one of those things, but again, you got to get results in this world of high performance development, try and try and get wins on the board. That's all people care about. And they're going to go with anyone who's going to try to convince them that they have the answer, the solution to help them get better results.

L: So like Chip Kelly, maybe a coach needs to surround themselves with some experts they can go to in different areas because maybe if you don't have the resources to have a performance team that was working with you every day, uh, but you can have people that you go to that have training, right, uh, who have knowledge and sport knowledge in tennis that you can ask questions of and get feedback on. So you don't have to figure out everything, kind of a generalist versus a specialist, right? You'll need to be a specialist in everything, but you need to know who to talk to and who to trust. I think that's so important for our coaches listening and our parents because you're making a lot of decisions and a lot of times these are decisions based on what someone told me. We have no idea where they're, they're coming up with this idea. They could be making it up for all we know or maybe it worked with one person that one time or maybe a lot of times how they make their decisions based on, well, this is what my coach did with me. Completely different person that we're talking about here now that you're working with. So I'm, I think we make a lot of these miscalculation just purely based on not being willing to take that step to, to find the expert who can really give us an understanding of, look, I should probably go this route. I wouldn't go this route. But you gotta, I think you owe it to your player to at least surround you with some people who at least who can get on email or you could call and be like, look, what do you think about this?

M: No, I think it's huge. And the other big challenge for a lot of people is just because coaches have worked with great players previously, doesn't mean they're good coaches. We have to be careful with that because you look at the top of the game and see how many coaching changes there are year in, year out. And those players basically do the same. If you look over a 10 year career there, they've had six, seven different coaches and they're, you know, they have a top 10 player, they're probably a top 10 player for most of those years. We have six or seven coaches. So that also, you've got to understand there's an important aspect of where you just working with a great player, cause great players figure it out. They're competitors, they're going to be great with or without a lot of instruction sometimes and they're exceptional. So you gotta be really careful what I look for in good coaches. If they consistently develop players from a mid level to a high level over and over and over and over again,
then they have a system and a development structure that produces consistent results.

37:52
L: There's a difference between a coach and a mentor, right? I think you're purposely trying to make me angry today, Mark, with all these things you are bringing up because these are things that frustrate me. And there's a difference between a coach and a mentor, right? A mentor is someone who has experience that you're relying on. Right? So, and I, I don't want to make specific examples, but there's been ex pros who've come in and helped players and, and really been very helpful because they have a specific experience. They've won a grand slam. They've been in the second week.

38:21
M: My early argument to that is we don't know if that player would have done that without that person. We can't disprove that. And it's timing a lot of the time. If you time it right and they're on an upswing and it's, they're about to make that change themselves and your there along for the ride. Maybe you get credit for that.

38:40
L: Well, that's my goal in life, Mark. How do I figure out what the upswing is? It's like tying up buying low and selling high. Yes, exactly. Can I get in on the upswing? That's what I'm looking for and I don't, doesn't matter what I say.

38:51
M: That's also the art of coaching. I mean at the highest levels of figuring out who's, yeah, who's going to be good and when they're going to be good and trying to get, get yourself in those environments. That's part of some of the best coaches I know have said that. They said, Hey, I timed it right. I was the right person at the right time. Probably 10 other people would have had the same or better results, but I was there.

39:11
J: Well, Lendl is a good example with Murray, right? Because they both had similar background in that they both lost what, four or five grand slams before they eventually won one. But he brought Lendl in after he lost three, I think four and then he lost, I think Australian open that one year and then later down the road he wins the US open so surely about timing there and bringing in the right guy that you're ready to be open to really listening to...

39:32
L: I mean, it was just purely odds. He's eventually going to have to win one of these [inaudible] you plant.

39:36
J: Maybe so, maybe so, but it kind of links that relationship...

39:40
M: It's a win win for Murray and for Lendl. I mean, Murray needed something and he thought that was the solution and it was and it, and it may have been because of the adjustments, it may not have been. We never know.

39:52
L: And there's nothing wrong with that. I think you have to make your decisions based on what you think is, is going to help you even if you can't quantify
everything. But I think the point that we're making here is that there are a lot of steps that we can take. So where you can avoid a lot of these miscommunications and waste of time and waste of energy. You know? So if we boil it down, you know, Mark what, what are some of the summary points you would make the coaches? Like these are the couple things that you feel are important for them but they they should be doing as it relates to technology and it's pretty broad analytics, but what are some of the basic things they should be doing?

40:24

M: Yeah, no. From a tech standpoint, I think the biggest thing is getting comfortable with your phone. There's so many apps on the phone now that can help you as a coach [inaudible] standard stuff like video. Videos, you know, has been around 20 years. Basically we need to, now you can miss a speed, you can measure acceleration, you can measure sleep, you can measure cognition, your reaction time. There's all sorts of stuff on the phone with different apps. There are some, a bunch of different wearables on the market now that are relatively low cost. It can give you a lot more feedback. Uh, we use a sensor on the racket for a lot of the stuff we're doing now. There aren't that many out there. We use the head sensor with zip and we're really utilizing that a lot to get volume, how many strokes they're hitting, what the ball speed is, what the spin rate is. So you starting to quantify consistently and this can be done anywhere, which is nice. You don't need a camera system and a lot of money and things like that are now accessible for the every person, which is really, really valuable. And then also making sure you take care of the recovery time period. Because if you want to be a really good tennis player, you got to do as much in the recovery time periods, sleep and the non tennis hitting time as you do during tennis time. And most players don't do that. I mean most players, they'd love to play tennis, that's their thing. But they don't realize the impact of the rest of their lifestyle has some monitoring. Measuring that is really important.

41:43

That's awesome. Listen, I know we're running out of time here and I'm sure we could keep talking for another couple hours.

41:48

L: We're going to do this again.

41:49

J: We, we, we gotta do this again. Yeah. This has been absolutely brilliant. We're obviously very lucky to have you still part of everything that we're doing and uh, I know many people on our staff here as well. People around the country appreciate connecting with you and seeking your advice. You know, the information that you bring is, is cutting edge and it's, and it's going to help drive us into a new era. And so we just appreciate that. But if any of you out there want to, you know, Dr. Mark Kovacs here is on social media, Facebook, Twitter, Instagram. You can follow the ITPA Kovacs Institute. Mark Kovacs himself. I follow him on those social media platforms and he brings out some great information, keeps you up to date with the things that he's got going on. So stay up to date with those. And that's it for today's episode of compete like a champion podcast. This episode with Dr. Mark Kovacs, T&T, technology and
tennis brought us the latest updates and trends with technology. We'll see you next time on compete like a champion.