

- S1 00:38 Hello and welcome to the weekly edition of the Huffines Institute for Sports Medicine and Human Performance podcast. I'm your host, Tim Lightfoot, and I want to thank you for taking the time to join us today. Every week we bring you an interesting person in the world of sports medicine, health, performing arts and a variety of other different areas, and we just thank you for again joining us today, and we have a special guest with us today. We have Dr. Suzanne Semanson. Welcome to the podcast, Suzanne.
- S2 01:02 Thank you. I'm so happy to be here.
- S1 01:04 Well, we're glad to have you here. I'm going to take just a minute and tell the audience why you're here and a little bit about you, and we'll just jump right into our conversation. Suzanne is a dance medicine physical therapist at the Harkness Center for Dance Injuries at NYU Langone Medical Center.
- S2 01:20 You got it.
- S1 01:19 She got her Doctorate of Physical Therapy from Northwestern University Medical School in Chicago, Illinois. She has over 20 years of experience in movement-related arts including dance, martial arts and yoga to add to her specialty as a dance medicine physical therapists. And she has provided backstage physical therapy care to several Broadway productions and dance companies in New York City since 2007. So, again, welcome to the podcast.
- S2 01:44 Thank you.
- S1 01:44 We're so glad to have you. So, of course, the first question I'm going to ask is what are some of the Broadway productions you've been involved with?
- S2 01:50 Currently, I've been helping out backstage at 'Wicked' and 'Once.' In the past, I've helped out working at Memphis. They're a fun group to work with.
- S1 02:03 They're here tonight.
- S2 02:04 I saw that.
- S1 02:04 They were recording, yes.
- S2 02:06 I saw that. Chorus Line, there's a whole bunch of them, but it's really fun to be backstage working with them.
- S1 02:11 That's cool. We'll come back to that in a little bit. Let's talk a little bit about, what does being a dance medicine physical therapist entail?
- S2 02:18 Being a dance medicine physical therapist is a physical therapist, and that's someone who helps to rehabilitate someone when they have incurred an injury, and specifically that someone is a dancer. So it's kind of a sub-specialty within orthopedics and sports medicine that caters specifically to the dance population. So when a dancer sprains an ankle or injures their knee, it's important for them to get more specialized care from a medical professional that understands their requirements.
- S1 02:55 We've had a previous guests who've talked about performing arts - sports medicine in particular - and one of the things they always talk about is the show has to go on, and so a dancer being injured it can be difficult for the production as well as the dancer themselves. So do you find a lot of pressure in these dancers go ahead and perform whether or not they are injured?
- S2 03:17 Sure, yeah. A lot of dancers either because of external pressures coming from their job or administration or within a school program or internal pressures

because of the pressure they put on themselves, will often dance even when they have discomfort and pain. And part of that within the culture I think is a norm, which I'm hoping that we can change every time, is to be able to distinguish what is a normal discomfort with training intensely and what is something that's pain because of irritation to tissue or an injury.

- S1 03:54 We'll look back to maybe how we can change it a little bit later on, but what are some of the more common injuries that you see, I mean, so many people in sports medicine, they think of what they see on TV. You know, sprained ankles, and ACLs, and knees and so forth. But there's probably not a lot of experience with the dance population in our listeners. So what kind of, what are the common injuries that you see that you may have to work with?
- S2 04:15 A lot of the dance injuries often entail anything in the lower extremities. So that means hip, knee, ankle. Only 35% of the dance injuries are actually an acute traumatic injury. 65% of them are actually due to overuse or repetitive stress on a tendon or ligament or something like that. So, it's mostly lower extremity. Now with different stance styles, there's going to be different demands placed on the body. So, if I'm working with people, contemporary modern style, they may have some spine-related injuries. Versus ballet dancers, you'll find more of those ankle injuries and knee injuries. And then as the genres expand that can kind of open the door for more injuries. I work with some aerialists and they can have some over extremity injuries, shoulders and wrist and elbow. But I think on a whole mostly it's lower-body-related injuries.
- S1 05:15 What's interesting I think, many in the sports world try to prevent those kind of things - you have different footwear, you have different surfaces. You don't think about designing footwear for dancers in productions based on whether or not it's going to prevent injuries.
- S2 05:26 It's true.
- S1 05:27 It's like does it work with the production.
- S2 05:30 Exactly. Yep, that's a challenge. For example, within the musical theater world on Broadway a lot of what's designed is obviously what's aesthetically pleasing to the eye to put on a good show. And it's after the fact, once you have the dancers in those shoes or in that costume that we'll see some issues with that as to the bio-mechanical stresses it's placing on their anatomy. We're hoping that maybe, if we can get physical therapists or some kind of specialized professional to help be part of that design process, because that will be a little bit more cost productive to be part of that rather than coming to go back and change something that's already been designed within a show.
- S1 06:12 Be involved at front as opposed to coming in and treating the injury afterward.
- S2 06:17 Right, yeah.
- S1 06:17 So, are there many productions like that where they do get you involved up front, or is that kind of a new and radical idea that's starting to take hold?
- S2 06:25 Right, it's a newer idea. There's a physical therapist I work with in New York who has been a little bit more instrumental in the design, but again, it's a little bit more on the back end, after something was designed in a Broadway show. So, we haven't quite gotten there to be part of be able to proactively address that but over time, as information gets out, we're hoping that we can be involved in that process.
- S1 06:53 One of our previous podcast guests, in particular talking about dancers, has said that to the greater extent the producers really aren't worry that much about that because there's so many dancers that if you have one that goes down with injury you can just plug another one in.

- S2 07:07 This is true. So the dancers are a dime-a-dozen and unfortunately sometimes they can be treated that way within the industry. Again, it's something I am hoping is changing. In that regard, it comes down always obviously to that bottom number - what is cost-productive for that production - and that's what the producers are going to be interested in. And what we're finding, for example, when a dancer suffers an injury that's part of a production and it's a workman's comp injury, that incurs a lot of healthcare costs to be able to rehabilitate them. So, we're already able to start to make changes in that by providing on-site coverage for injury screening and injuries at bay, and we're finding out that that is actually having-- we're able to help save them money because we can minimize the number of injuries within a production, or be able to recognize it quicker, and so they can get better treatment for it and the dollar is driving a lot of it, but there's a way that we can help provide more support to the dancer as well.
- S1 08:11 I think with that answer you might have answered a little bit of my next question. The observation was that our dance program folks - when they found out you were coming - were quite excited because the Harkness Center is leading the way in a lot of this injury prevention. The Harkness Center in particular, are you all working or trying to work on an institutional level with these producers to do those kind of things that you just talked about? Is there a concerted effort to do this, or...?
- S2 08:43 I am not so directly involved with that aspect of Harkness. Within the team at Harkness we have PTs and ATCs. The PTs - my primary role is as a clinician, so I work at our out-patient clinic and we'll provide some backstage coverage, like I've mentioned, and then also I do some teaching. There are folks that are more involved with the injury prevention workshops as well as providing workshops on the rec stage - how to take care of your body and manage that stress to your body - so I don't have as much direct relation as to how those relationships are formed.
- S1 09:23 But that's all formed under the Harkness Center. These are all the programs of the Harkness center is doing?
- S2 09:28 Yep. That would be Allison and Lee and Maggie and those are the folks that have more outreach into the community. And then I may be someone that come in to help deliver that, but as for setting that up I'm not exactly sure. Sometimes I know that we are approached by companies to provide coverage but I don't know beyond that.
- S1 09:50 I guess let's backtrack a little bit and talk about your life as a backstage physical therapist. That sounds really interesting. You mentioned you have a clinic, and that I'm sure the performers come too, but you also provide some backstage coverage. Is that common for production to have a physical therapist on hand during a performance back stage? Is that a new thing coming?
- S2 10:13 It's becoming more common and it depends on how physical and vigorous the demands of the show are. People - performers and dancers have been in the industry - it's becoming more common. Certainly with Broadway productions. Maybe not so much as much with off Broadway productions simply because from a finance standpoint. But certainly the ones that are more vigorous... well that's pretty standard at the Broadway level.
- S1 10:41 These dancers that are performing on Broadway, they're performing, what, eight shows a week? And it has to be the same, and enthusiastic every time it is done, so that is an amazing work load.
- S2 10:52 It is, and when I've-- I started my profession as a physical therapist. Before that I was also an aspiring dancer. And now, being on the end as a physical therapist, and treating these dancers backstage and seeing what they're going through -

and with a smile on their face - a lot of this is the same stress as a factory worker on the line, and it's that repetitive and really athletic movement over and over again. And it's a hard job. And they love it, so it's this interesting dynamic that they want to go in and they'll keep doing it, but I have the responsibility as a healthcare professional to be an advocate for their health, and know where to draw the line if they need to be pulled out of the show because of an injury that they want to dance through.

- S1 11:41 So, have you had to do that?
- S2 11:43 A couple times.
- S1 11:44 Do you get much resistance form the performers when you do that?
- S2 11:49 Actually, no, because when it's something that warrants being pulled out of the show they know it in the back of their head and they just need someone else to verbalize it. And you almost see a relief in their eyes when you do make that call.
- S1 12:02 You started to go down this path, and this is a path that we normally go down on this podcast. For some of the people listening, they're going to go, "Gee that sounds really cool, how can I do that?" So share with us your path. You said you were a dancer in the past. How did you get interested? Frankly, I'lltell you this, in my years, this is a profession, or a sub-specialty, I didn't even know existed, so this is really cool.
- S2 12:23 It was a bit circuitous for me.
- S1 12:25 All the good ones are.
- S2 12:27 Yeah, well, with no exception. I started - I was a total bunhead growing up, which means I was totally geeking out on ballet. I wanted to be a professional ballerina.
- S1 12:38 I haven't heard that term before - bunhead?
- S2 12:40 Bunhead, that's what you call it in the dance world because of the, you know, the buns. I had my first injury when I was rehearsing for The Nutcracker in my senior year of high school. I was lucky enough to be lined up with a physical therapist that specialized in dance medicine, and it blew my mind. It was one of those things where I thought, "Okay, I'm going to put that on the back burner; we'll come back to this later." But I was still really driven towards dance. So, I danced through college, I'd always had an interest in biology and science and how that human body worked, more from I think a selfish standpoint of how my body worked and how to help fix my body so I could be a better dancer.
- S1 13:19 Many of us got into this business for that same reasons, right? Not because we were dancers but we were other kind of performers.
- S2 13:26 Right, how does it serve you? What about me? And so I finished my four year degree at University of Michigan and found myself working multiple jobs and teaching and auditioning and dancing as much as I could and slinging beans at a coffee shop, trying to figure it out how to really make that profession work. And in that time, I'd had couple of more injuries that required some physical therapy and had me rethinking this profession. And it was one particular summer where I was in Chicago, dancing my brains out, having a great time, had to go see a physical therapist again and started my search for PT schools just to check it out. I found Northwestern University and arranged a meeting. And they told me about-- there's four clinical rotations that happens in PT school, and they told me about one clinical rotation that happened in New York City within dance medicine on Broadway and it was, "Wow! This is it."
- S1 14:22 There you go.

- S2 14:25 Okay, hold that thought! So, I moved back to Detroit and did my prerequisites which took a couple of years and did everything I needed to do, got into Northwestern and the rest is history.
- S1 14:36 So, is there a lot of competition for those kind of jobs in New York?
- S2 14:40 I don't know how to answer that question. I would imagine perhaps because it is a bit of a specialty. But someone like myself who started as a dancer, that I had that clinical rotation in dance medicine was my in, and I had the skills to back it up. And so I didn't find it personally competitive, but clearly there were some... I had to get into school, I had to do well and I had to earn that spot. So yeah, there's some competition but when you're as big of a geek as I am, there's nothing that was going to stop me.
- S1 15:18 Do you find that your dancers that you work with respond better to you because you're empathetic, you've been that route, you know what they're going through.
- S2 15:28 Totally. I've had PT from dance specialists, I've had PT from a non-dance specialist. So I was able to experience that firsthand as a patient. So I knew what kind of value that brought to the rehabilitation and healing process. And Harkness, you can't work there unless you've been a dancer within that world in some fashion because it is crucial towards their healing.
- S1 15:54 So, are there any stories that you can tell us about your career - things that jump out at you that you can talk about on a podcast?
- S2 16:04 Well, a part of it again is I've enjoyed diversifying my skills and the people that I work with. So I was able to find a way to-- I work with aerialists and I also have a love of sailing and so I found a way during-- I did a volunteer assignment in Vietnam at a hospital there and was lucky enough to work with the folks there to improve the services they're able to offer to their patients. And during that same experience I was able to earn a spot on a sailing ship, a tall ship, which required a lot of work aloft, and it was pretty acrobatic and pretty physical. And so I was really happy to find another way to tweak my skills but to serve another population with the some similar needs of function.
- S1 16:57 So you climbed all the rigging?
- S2 16:58 Climbed all the rigging and did physical therapy on my shipmates. I was onboard for four months. We crossed the Atlantic. It was one of those great life adventures and I had a blast doing it.
- S1 17:09 Wow, so if the PT thing doesn't work out, you can always go be a ship rat on one of the big, tall ships.
- S2 17:14 Exactly. You see where I'm going with this.
- S1 17:17 That career just all comes into focus, does it?
- S2 17:21 It makes perfect sense to me. Other people might beg to differ but to me it makes perfect sense.
- S1 17:26 I'm fascinated with the backstage bit with Broadway plays, because most of us, probably most people that are listening, have sat in the audience and watched these things and have marveled at how they go off without a hitch oftentimes. Is the backstage environment calm and collected or is it-- can it be crazy if there's injury mid-performance or something?
- S2 17:45 I've not been-- well, it can get a little heightened when there is an injury. Usually, backstage is pretty calm. I haven't had any life-threatening serious injury in that regard. Usually they'll come to see me. When I go on Saturdays that's between their matinee and evening performance. Sometimes someone

will have something that happened during the matinee and they'll come see me, and there may be some reshuffling of who is signed up and everything, but it's not usually dramatic in that sense. And each backstage does have a different cultural feel that's usually driven based on the show, so it's fun to experience that.

S1 18:26

What's kind of the difference in those feels? As educators we're talking about we can have the same class with different students and you get a completely different feel in the class. So what are the kind of different feels that you get backstage from some of these plays?

S2 18:39

I worked backstage at La Cage Aux Folles, and that was a really fun backstage environment just because of the storyline that goes with that show. There is a lot of very gay guys running around with makeup and heels on and they're very affectionate with each other and there is just a lot of love oozing back stage. That's really fun to work back there. And then I worked backstage at August: Osage County, which is actually a play, but there's a pretty physical fight scene in there, and it's a very emotionally charged play. There's a lot of neck tension tightness that I had to work through, and so that had a little bit more subdued feel backstage. What else? Those probably the two big extremes.

S1 19:32

Everything falls else between those two?

S2 19:36

Yeah. I worked pretty regularly back stage at Fuerzabruta, which is an offstage production. It is an amazing show, if anyone has a chance to ever see it, and they-- that has a lot of acrobatic, aerial, they're running on treadmills with wind and water going, kind of flying around them. The artistic directors are Argentinean, so it has that Latin, South American cultural vibe and music to it. And the energy backstage is really positive and loving and everyone's really nice to each other.

S1 20:11

What was the name of the play again?

S2 20:13

Fuerzabruta. They've been playing for five years now.

S1 20:17

Wow. We'll put a link on it to our show notes for folks that are interested. That'll be fun. You mentioned aerialists, and there have been some well-publicized injuries-- it was Cirq recently, and the Spider Man production in particular. And it's-- those are accidents because they're-- they do have very extreme safety standards for all those kinds of shows don't they?

S2 20:39

Yep. The kind of aerial work-- Again, being on the back end of taking care of the performer, I don't have very much direct involvement, at least at Fuerzabruta, which is the show that I most regularly work on in regards to the aerialists. But yes, as for the safety standards, I'm sure they're in place, but I don't know a lot about that.

S1 21:00

I guess my point was being that these performers are oftentimes putting life and limb in danger, because a lot of things they do, if they go wrong, they go wrong big.

S2 21:09

True, yes.

S1 21:11

And can cause lots of injuries.

S2 21:15

Yes. I'm just surprised of the mistakes or the injuries that have happened in regards to the traumatic safety harnesses, something going wrong, because in my understanding that's pretty rare. Usually the injuries that I'm dealing with is again overuse or over-extension or not having enough strength as they're manipulating through that harness. But as for the safety things that go wrong, we used harnesses up aloft in sailing, and to have something fail like that, it's actually quite surprising for that to happen.

S1 21:43 Suzanne, it's been great having you here.

S2 21:46 Thank you.

S1 21:48 I'm getting the signal that we're running close on time. And, as we do with all our guests, we ask: do you have a take-home message for our podcast audience?

S2 21:54 My take-home message would be, if there is something that you are passionate enough, then just to go for it. I know it sounds a little bit cliché, but the example of my life and the things I have been fortunate enough to pursue and do with it has only taught me to continue following that passion.

S1 22:15 It may sound like a cliché but it's true, right?

S2 22:17 It sure is. Yeah, absolutely.

S1 22:19 Thank you so much for being with us today.

S2 22:20 Thank you.

S1 22:21 And thank you. For those of you that are listening, our regular listeners will know is that at this point in the podcast is when we have the podcast question of the week. And here with the podcast is Kelly.

S3 22:33 What percentage of injuries are due to overuse in dancers?

S1 22:39 Okay. Be the first one to send us an email with the correct answer to that question and you'll win one of those nifty podcast t-shirts - the neon blue ones are going fast so if you want one of those, you better answer, and answer quickly. So Suzanne again, one more time, thank you for being with us today.

S2 22:55 Thank you. It's been a lot of fun for me.

S1 22:58 And we want to put a shout out to the dance program that brought you in and brought you over. And I want to thank all of you that took the time to download and listen to us today. We hope that you are with us next week when we have another interesting person from the world of sports medicine, dance, performing arts and health with us. And until that time, we hope that you stay active and healthy.