



## **Victory Summit: Exercise**

### **Yoga, Wellness, and Parkinson's**

Davis Phinney Foundation

*Note: This isn't a flawless, word-for-word transcription, but it's close.*

Polly Dawkins, MBA (Executive Director, Davis Phinney Foundation):

So far this morning we've heard about the value of exercise, about intensity and volume, and the latest research. We've done some exercise. We've, we've talked about the benefits, and I know you've got a deep passion for yoga and Parkinson's. So, as we finish off our day, I'd love to finish off with that topic. But before we dive into it, I think the audience should benefit from knowing who you are and how you got into this work. So, would you, instead of me reading a bio, how about you tell us a little bit about who you are, what your background is, and how did you find this work?

Indu Subramanian (Director, Southwest PADRECC):

Sure, Thank you. Well, thanks for the opportunity to speak about this topic. It's something that's near and dear to my heart. And, you know, the guests so far have just done a great job. I'm a huge fan of David and Daniel and Bas talked this morning was very inspirational. So, amazing presentation. Hats off to you. So, I am a neurologist. I'm a western trained neurologist. I've been a neurologist here at UCLA and the West Los Angeles VA for about 20 years. I've seen the benefits of what we can do with Western medicine and our pharmaceutical and surgical interventions, but I've also been quite open-minded too, you know, how we can help our patients in other ways. I myself grew up in a household where Indian, the, and, you know, Indian sorts of traditions, yoga was part of my upbringing.

My mom is a family doc in Canada. But, you know, we certainly had this other sort of approach in our lives. And so, I was always quite interested in these things when I was a resident and a fellow right after that, I had my first child and was balancing work and life in my own life. And had some you know, sort of work-life balance issues as many young women physicians does, and really leaned upon the mind-body approaches to sort of help me in my own personal life. I got more interested in yoga and started doing it and then ended up doing a yoga teacher training, attracted patients who knew that I had this interest in my practice when I was more at UCLA. And then have really been just sort of exploring some of the mind-body spaces.

And as you know, my research has expanded a little bit. I've been very interested in the concept of the importance of social connection as well. And this is part and parcel level. I think some of these mind-body practices is doing it in a group, having people around you, having an instructor that cares about you, that you have an energy sort of with and can be in the room with you or

even on the zoom screen with you. And so, I think that, you know, this has been kind of part of, sort of just my approach now to caring for Parkinson's patients or people living with Parkinson's. And I got boarded in integrated medicine. Given all the sort of time that I had spent learning about the mind-body practices, I did a deeper dive into meditation, and got boarded in integrated medicine, which is this sort of borderland between western traditional medicine, medicine, and these other approaches. And have, you know, been really sort of fascinated by the concept of, you know, how we can help empower our patients with lifestyle choices that include the mind-body practices and exercises, key components to help them live better.

Polly Dawkins:

That's great. That's great. I can imagine that the people that you see love having you as a physician given this approach, and I bet they're doing well, given your integrative approach. Before we jump into yoga specifically, I know you're leading up a task force with the movement disorder society on the concept of wellness in Parkinson's. I don't want to go too far into that, but I'd love to understand what is that and what are we going to be looking forward to seeing out of that?

Indu Subramanian:

Yeah, so wellness is sort of this concept that people living with Parkinson's or any of us can have proactive lifestyle choices that we can choose every day to help us live better. And the concept is that we are part of sort of driving the bus for our own health, and it takes the sort of you know, healthcare out of the hands of just your doctors, right? You might see a neurologist like me once in six months, I give you a pill and send you home. Well, what do you do in the meantime? So really I think the sort of concept that exercises, medicine, and that social connection is part of the medicine and that we can really sort of use things like sleep, diet, all of these sort of lifestyle choices to really help ourselves live better. And I think the mind-body approaches are kind of part of this global kind of umbrella.

The other things that I think wellness includes are the col sort of cultural context. So understanding who you are as a person, you know, it's very different as a lived experience for somebody who may have access to a lot of things as a perhaps a Caucasian man with you know, some wealth living in, you know, with a metropolitan area who has access to, you know, a world-class center of excellence versus somebody who might be in a rural space or somebody who is you know, not married, who's you know, a woman living with Parkinson's who's younger, who's at herself caring for her children or you know, a person of color. So, all of these things matter. I think when we approach Parkinson's disease. And also, I think thinking about the whole person. So, a holistic approach that's not just one disease in a body, but really thinking about who you are, what other sorts of things you have can you see, well, can you hear well how's your, you know, bone health, how's your gut health?

All of these things can affect how people do. And so, I think mental health is a huge piece of this as well. So, identifying if you have coexisting depression, anxiety, apathy, all of these things are sort of this more holistic approach to Parkinson's, which historically I think we've really just thought about it as a movement disorder or motor disorder affecting tremor, stiffness, and slowness. But I think people who are living with Parkinson's and their care caregivers can attest to the fact that much of these other things in the mental health realm and these other realms, non-motor issues, really do affect how they're living in their lived experience and quality of life with Parkinson's.

Polly Dawkins:

Yeah, yeah. So important. We're learning that more and more, aren't we? Yeah. So, let's, let's dive into one of your areas of passion, which is yoga. Yoga and Parkinson's, or yoga or Parkinson's. Can you describe for those who might be new to yoga what, and why is it a good approach? Is there research supporting yoga and Parkinson's and Yeah, I'll follow up with some questions after that?

Indu Subramanian:

Sure. So, I think that yoga is quite misunderstood. People have a sense that it's just the poses, it's just another exercise, just like, you know lifting weights in a gym. Yoga is part of this sort of larger tradition of Ira Veda, which is this sort of traditional Indian approach to healthcare. Just like in traditional Chinese medicine, there are certain sorts of facets. Many other healthcare systems outside of western medicine have different approaches that are thousands of years old. So, yoga is a part of this. Yoga has some poses, so we call those the asana. So those are the sort of you know things that you can put yourself, your body into, and the movements that you can create between poses. There's also this sort of important aspect that I think is very powerful, which is the breath work.

So, this is what we call pro-amma. So modulating breath around poses sometimes or just by itself. So, there are a number of things that you can do in yoga that affect breath. And this is very powerful, especially in Parkinson's patients, because breathing and controlling your breath, being aware of your breath is actually a very good way to sort of tap into the autonomic nervous system. So that's that nervous system that includes the sympathetic and parasympathetic aspects that can have you know, some sort of control over things like anxiety. They affect heart rate, it affects you know, blood pressure. It can affect respiratory rate temperature. All these things can actually be powerfully modulated sometimes with controlling breath. And so we are not as neurologists, the first people to realize this. I think the cardiologists have realized this.

A number of other psychiatrists and psychologists use breath in trying to help with a host of symptoms that they take care of, including heart rate abnormalities. And so, the autonomic nervous system is something that we can modulate kind of uniquely with the breath work that

we see that we can use in yoga. And then the third component that I think is pretty important is the meditative aspect. So, we have this sort of concept which some people would call mindfulness of paying attention in the moment to you know, within, within your sort of capacity to the thoughts in your mind, sort of what's happening just sort of checking in in your body and that awareness sort of your present moment, your body sensations your mind. That is also part of yoga.

And that can actually also be very powerful for a number of things. And mindfulness as a whole has been sort of separated and studied in ways. But within yoga practice, we have ways to become get into the same spaces and that can affect sometimes cognition even. So, there's been some studies looking at mental state and memory, things like that, using meditation. It can affect sleep sometimes in a positive way. It can also affect anxiety and depression in positive ways. So, these are actually all also very powerful. But when we look at just the things like the poses and the movements I think we have some unique things just from those that are very helpful to our patients living with Parkinson's as well.

Polly Dawkins:

So, if somebody is in the audience watching this and listening, wondering how do, how do we get started? How do I get started in yoga? Is there specific yoga for Parkinson's classes? Are there online classes? Are there so many types of yoga? Which, where do I start?

Indu Subramanian:

Yeah, so I mean, I think that there's a whole host of different types of yoga and you know, there's probably as many names of different types of yoga as there are sometimes practitioners doing it, right? So, everyone has their own little novel approach. I think to make this accessible and for anyone out there who really wants to get a benefit, I think we have to get away from sort of the complexity of, you know, is it this type, is it that type? And what exactly have we studied? And, you know, how many poses and you know, how many minutes and things like that. Just to sort of take a step back from yoga in general and think about the mind-body approaches in general there are things that people are possibly doing in some of these spaces to get some of the benefits of mind-body approaches which I told you can affect mood and things like that.

It can affect sleep, can affect cognition, perhaps even in things like prayer, things like getting out in nature, things like you know getting together and even dancing, getting into flow states where you're enjoying something like live music, certain things. So, I think, you know, to make it less complex for people and who are really feeling like overwhelmed, like, you know, today I tuned in and there's 10 different types of exercise and people are telling me to do all these things, and it gets overwhelming sometimes just making that baby step and adding a little bit of something. So if it might be that you can, you know try some of the meditative aspects by getting out into your backyard and maybe feeling your feet on the ground in the grass, and sort

of that feeling of grounding with your feet on the grass, You know, sitting in a chair in a stable chair, that's something, you know, looking up into the sunshine, looking at the sky, sort of letting that, the sort of natural element sort of wash over you, that is actually a meditative as well.

And we sometimes make these things so complex that patients feel like I can, you know, I don't have a studio, I don't have a computer. There's no way that I'm going to meditate on a map for 20 minutes. But if it's something where you get together perhaps with your church group once a week and you sing and choir and you're breathing in this group and you're sort of in this state of connection with other people and sort of calming your mind just by being in this place disconnecting from all the other things that we're doing, these things are actually part of the same medicine that we can get from yoga. So, I think, you know, that's an entry perhaps if it's super overwhelming, is just to start with these basic, maybe ghetto nature, go to the beach, watch the waves, go to a lake, watch these sort of natural elements.

Then we can sort of think about, you know, if there are some hopes to do some poses, depending on your level of you know, flexibility. It's really important to be safe, right? So, we want to be careful. Some types of yoga, for example, Bikram or heated yoga, sometimes those are perhaps not the best for our patients because they can affect blood pressure. And it's a very hot room and it can really drop people's blood pressure. So, you want to be mindful of, you know, entering something that's so new and different and perhaps unsafe. So, I think, you know, we don't want to be signing up for another type of yoga's vinyasa, which is a flow yoga where people are, you know, moving from one posture to the other. There's often an aerobic element to it. These are quiet, you know sometimes strenuous classes.

And so perhaps we start with, you know, a chair class and perhaps looking at, there are some Parkinson's specific classes depending on where you live in the country. There are even some online classes that started in, during the pandemic. They went, they went online. And I think they've now transitioned back to sort of in-person. And I think that, you know, the beauty of online is that it is accessible. We can have people who may not be able to drive these distances to come into a room and be together in a place. But I think that from my eye I think it's always in some ways preferable to try to actually see people in a space and be with a person, be able to have somebody, you know, perhaps touch you, adjust you, things like that. There's actually quite a lot of beauty in having a shared space where you're breathing together, where you're moving together, where you have, you know, the teacher who's also feeling the room.

So, I think if you can find an in-person place to do this you know, of course, you know, depending on the safety of the pandemic and masking and things like that some people have been doing some of these classes outside. But you know, I think starting in a chair, so you get a sense of some of the movements depending on your level of mobility. And going from there are classes that use modifications. And so, if you have a sense of who the teacher is, you can talk to the teacher beforehand and say, you know, I have Parkinson's, I've had it for this long, you

know, this, these are my issues. I have balance issues, you know, would it be better for me to start in a chair or start with standing and, you know, get a sense of things.

And then sort of slowly work your way up. I think you know; you never want to get an injury that's going to derail your exercise altogether. So, I think safety is the utmost importance. And actually, chair yoga classes are actually tremendously beneficial in some ways. Sometimes being in the chair can allow you to get sometimes a stretch or sometimes a breathing pattern that you may not be able to access if you are on a mat or standing. So, I'd be open minded to, you know, starting with a chair class and going from there.

Polly Dawkins:

Right. And is that something that you can find, for example, at rec center or a senior center? How would you find a chair yoga class?

Indu Subramanian:

Yeah, I mean, I think that you know there are studios that are, do a range of classes. So, I think, again, you know, a beginner's level class you know, perhaps a senior center, perhaps you know sometimes a yoga that might be affiliated with a medical group that might be, you know, for geriatrics patients or, or certain types of, and if you can find a Parkinson's specific class that's obviously optimal. Sometimes also if you are seeing a physical therapist as part of your care, which I encourage people to check in with physical therapy to get a sense of where they are, where some of their mobility issues might be, if they have balance issues, if their blood pressure is dropping, if there are certain parts of the body that may be you know, not as functional as the other side, you know, you can get a good sense of that from that pt. You can get a sense of then how to sustain your, you know, exercise or other practices between physical therapy sessions or even after physical therapy may have ended. And then those people can often be a good resource for you to find you know, these sorts of things in your own community. But I think that, you know again, safety starting slow maybe starting with a chair class are, are all very good entry level ways to sort of go about this

Polly Dawkins:

When, tell us a little bit about what's, what are some of the most important learnings that you have found from teaching yoga to people with Parkinson's and other neurological diseases?

Indu Subramanian:

So, what have I found? I found that I think when we that the social connection piece is huge, I think that is one thing that I found. I think when the pandemic hit and we couldn't see our patients and we were doing some symposiums where patients would come in and we would all be doing things together, either dance or boxing or, or yoga. And I think that, you know, being

disconnected from each other is profoundly you know, not good for our nervous system and for our brain in general. So, I think that, you know, that social piece, if you can get out and do something with a friend even if you can't get to the yoga class, if you can get a friend to come over and you do it together or your perhaps your care partner or your daughter it's, I think, you know, definitely beneficial cuz you get the benefits of doing some group activity.

And loneliness is very bad you know, in general for help and for our Parkinson's patients. So that's one thing I've found. The second thing is that the mind and the body are very connected. So, I think if you can help with calming the mind, help with calming that autonomic nervous system, it can actually be profoundly beneficial for people living with Parkinson's with their motor symptoms. And so often we look at something like tremor as a, something that we fixate on, but it's really that we have some anxiety underneath or that we have some other sort of you know, things that are weighing our minds down, distracting the mind. And so, I think once we kind of tap into that and we realize sort of firsthand that, you know, the breath can really change how I feel and that just feeling sort of into my spaces and my body and you realize, wow, look, I guess my heart rate was really high, you know, at the beginning of this class, I guess when I was breathing, it was much faster.

And now, you know, at the end of the class you're like, wow, this has transformed me from, you know, where I was to something else. And that was something that you had control over actually within your own body, which is kind of a beautiful thing. So, this doesn't require any fancy yoga pants or cool, you know, pretty yoga mats or, or, you know, gym membership or anything. It's something that's accessible honestly to all of us. And we can take that practice through to honestly even people who are in their last days of life. And I've, you know, been able to breathe with people who are in hospice in pain sometimes, not necessarily even from Parkinson's disease, but you know, other, other problems that happen to family members or, or whatever. And they've asked and yoga's been something that we could do even as a group together, even in those spaces, which I think is a really beautiful practice.

So that's something that I think is really powerful. And I actually had a c-spine MRI myself recently, and I started to get quite anxious in the MRI scanner and I was going to have a panic attack Dr. Super Romanian and a scanner having a panic attack not, not great sort of mentally sort of thinking about that. So, I realized my heart rate was going faster and, you know, I was just, you know, claustrophobic. And so, I really started to rely on this breathwork kind of just thinking about these things that I've practiced not in that same space, right? So, you kind of have to practice, you kind of have to get these things going on a daily basis that becomes part of a regular thing that we drizzle in from if we can diagnosis. And then when you need these things, they're there in your pocket to sort of use. And I can say that for me in my own lived experience, I've really been much more open-minded to how powerful these things are. Probably much more powerful sometimes than the pills that we give or anything else that we do.

Polly Dawkins:

Mel has just put a comment about in the chat about the effects of yoga on sleep and any, any thoughts? Is there been any research on that or any thoughts on the beneficial effects of yoga on sleep?

Indu Subramanian:

Yeah, so I mean, I think that in the Parkinson's literature itself, I just had another look. I mean, I think there were some, some signals of some benefits. I mean, really in general, if you look at Parkinson's disease, I think the benefits that I think are amazing with yoga are really in this non-motor realm. So, you know, anxiety, depression those sorts of mood things. There's also been some benefits and balance, especially around the poses. There's been some benefits in sometimes the unified Parkinson's disease rating scale with motor, motor things. Certain walking measures like timed up-and-go scores, things like that, sleep specifically in Parkinson's, I don't think have been robustly measured. But the truth is that there hasn't been a ton of studies that have been well done. A lot of these studies are small, small studies and I think that, you know, the largest study that came out of I think it was Hong Kong really looked at anxiety and depression as beneficial things and in quality-of-life measures.

But I do think that there are, there is data outside of Parkinson's and other sorts of patient populations to show that yoga can help sleep and certainly mindfulness can also help sleep actually quite powerfully. So, I think, you know, whether it's the poses themselves or you know, that meditative aspect or the breath aspect, these are all very kind of bound together in yoga. And so, I think that, you know, sleep is definitely something that the more cardio we get often sleep gets more restful we can help run behavior disorder with you know, certain types of exercises that, that, that increased cardio. So, I think there are many benefits for sleep that can happen with yoga. And so, what piece of it is, or what type of yoga specifically and has not been teased out? Well,

Polly Dawkins:

I mean, you can imagine sort of extrapolate, like if you're, if it's helping with mood and anxiety, that's one of the things that might keep people awake.

Indu Subramanian:

Absolutely.

Polly Dawkins:

And if yoga can help with those, that might help with sleep.

Indu Subramanian:



Absolutely. And I know I can tell you that in my 200-hour teacher training sessions, I slept very well. It was like 10 hours of yoga a day. I got the best sleep of my entire life in that time. And you know, I think that you're, you're just sort of reset. The other thing that I think the mind-body practices do, which is very practical for these this day and age, is that we really literally unplug completely, right? We put our cell phones away, we turn off our devices, we're not in front of our computer screen necessarily when we we're doing some of these things in the same way that we would be if we were, you know, binge-watching Netflix or, or, you know, scrolling through news and things like that. So, I think that if you can you know, I think Zoom is a great technology and has increased our accessibility to many people who would never be able to come and see us you know, in some of the places that we practice medicine or do some of these classes.

However, if you're able to really get out and disconnect, put your devices completely away in a studio I find that people are just so amazed at how like an hour away from all there, you know multitasking and all this sort of digital craziness is just also very therapeutic. So I think, and if you can add a nature piece, if you can add being present with somebody that you love, or a friend or, or a social interaction, I think that there are so many benefits of these sorts of things to you know, just the whole person, the whole body, the mind, and the autonomic nervous system as well as, you know you, your muscles and your, you know, sort of stiffness, slowness, things like that, because we're doing the stretches and can really help with posture and a number of other things that affect specifically our motor function in Parkinson's.

Polly Dawkins:

So, Amazing. In the chat, Kevin here says that he keeps a yoga mat at the foot of his bed, and if he can't sleep in the middle of the night, he gets up and does a few yoga hoses and it helps with or, and mindfulness and breathing and it helps him get back to

Indu Subramanian:

Sleep. Absolutely. Absolutely. And there are, I think even apps that just do breathe work that you can find. And there are apps that are just for mind mindfulness as well. So, I think all of these things can kind of be you know, used sometimes interchangeably. I think that doing a lot of poses in the middle of the night probably is going to make you more awake. You know, if there, but there are, you know, there's, there's things like yin yoga and restorative yoga that are more sort of slow-paced. They're often tap into that relaxation response. You're holding some of these poses for six, seven minutes sometimes and you really can you know, sort of tap into this sort of relaxation response and get that autonomic nervous system really calm and so that can automatically help people get to sleep as well.

So, if you're looking for something to kind of decrease your you know, sort of revved upness, I think that yoga and especially Restoratives can be helpful. And the beautiful thing also about yoga is that you have the ability to use modifications, as I mentioned, so you can do the same

benefits of sometimes a whole mat series in in the chair or in bed, and sometimes even, you might be able to do some mini things. And I've spent the last couple of years working with some accessible yoga teachers, adaptive yoga teachers, and one of my yoga mentors recently has been Matthew Stanford, who works at Mind-body Solutions in Minnesota. And he's you know paralyzed in a wheelchair and is able to teach yoga to so many people, even high CS sign, high cine transaction patients who can't move anything from their neck down or able to get benefits from some of these yoga practices. It's really remarkable.

Polly Dawkins:

It's compelling. Yeah. So, Indu, as we are wrapping up our day of exercise and Parkinson's and closing out our sessions here, is there any words of advice or last thing you'd like to tell our audience that will help them with their exercise, yogini, anything around this topic area?

Indu Subramanian:

Yeah, I mean, I think Parkinson's is a very treatable disorder. I think that you know, we are inspired by you as people living with Parkinson's. You've taught us a lot. And you know, those of you who run these support groups and stuff as well are doing amazing work, David, and you know, many people who are like literally on the ground doing this amazing work and are inspired by our patients. I do think that, you know, being able to be the agent of your own destiny in some ways, so taking ownership of what you choose to do every day is a person living with Parkinson's is huge. When you feel like it's just the doctor giving you a pill and you're not even sure why you're taking the pill, it becomes sort of this sense that you don't have control and that really your outcome then is not in your control.

But I really do think that when we look at those people who are, you know, embodying that secret sauce of who does well, it's really people who I think have the right mindset and, you know, use these sorts of things that are non-pharmacological approaches to the best of their ability. Obviously, I do believe that, you know, carbidopa, levodopa, these medicines are, are hugely important. Surgeries are hugely important, but the non-motor aspects, the mental health aspects of living better are hugely benefited by lifestyle choices. And I think exercises a central one, and we're finally getting data to support that. And hopefully, everyone's getting counseled on the importance of that from day one of Parkinson's. But these mind-body approaches and these, the importance of sleep, the importance of social connection the importance of, you know, diet, all of these things, I think put together, I think can really help people to live better and not just sometimes, you know I think somebody had mentioned that they, there was a patient that is now in a better state of help than they ever had been with some of these lifestyle approaches.

And I think we can then sort of resort of frame kind of how we approach you know, our day-to-day lives in a way where we're, we're feeling more in control.



Polly Dawkins:

Yeah. Such an important piece of this puzzle. Thank you, thank you. And you're so busy with all that you do for the community as well as for your patients. And we really appreciate you being here with us today fitting in this topic in your busy day and your busy week. Look forward to having you back to talk about more topics that you're passionate about for our community. Thank you so much, Dr. Indu Subramanian.

Indu Subramanian:

Thank you for having me. Have a good day everyone, and glad that I was able to join. Thank you.

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