

Episode 90: Movement Strategies: Mobility, Falls & Freezing of Gait

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Dan Keller: Welcome to this episode of *Substantial Matters: Life and Science of Parkinson's*. I'm your host, Dan Keller. At the Parkinson's Foundation, we want all people with Parkinson's and their families to get the care and support they need. Better care starts with better research and leads to better lives. In this podcast series, we highlight the fruits of that research, the treatments, and techniques that can help you live a better life now, as well as research that can bring a better tomorrow. One aspect of achieving a better tomorrow can start right at the time of a Parkinson's diagnosis.

Some physical impairments are so subtle that a person newly diagnosed with PD may not even notice them, but addressing them early can hold off more serious problems later. A physical therapist, especially one specializing in neurological disorders, is uniquely trained to detect motor impairments and design an exercise routine that targets them. Addressing these problems early can have long-term effects into the future. As the disease progresses, physical therapists can provide evaluation and frequent direct feedback on how to exercise most effectively and safely.

When I spoke with physical therapist, Heather Cianci of the Dan Aaron Parkinson's rehabilitation center of the University of Pennsylvania, she emphasized the need for people with PD to be evaluated by a physical therapist early in light of the various movement problems they may have and the potential to alleviate them and slow down their progression. Today's podcast is sponsored by Kyowa Kirin.

Heather Cianci: Physical therapy is something that we need to start in every patient who has Parkinson's disease. Physical therapists across the nation are really pushing for early referrals from physicians to physical therapists. For this purpose, people with Parkinson's disease have so many difficulties with posture, with balance, with their walking, with fatigue, depression. We know now that through early intervention, we can really impact these difficulties and possibly slow them down or keep them from even occurring. It's important that patients start with physical therapy, but then it's equally important that when they're not in physical therapy, they find some sort of program in the community where they're actively exercising because it's a 24/7 disease and we need to make sure that people keep those activity levels up for as long as possible.

Dan: Is it either-or, sometimes people go to physical therapy and then continue the same exercises at home, but then there's also exercise as you put it?

Heather: Correct. What we're trying to do is to teach people that really the best is both. Depending on where you live geographically, you may not have access to a physical therapist who specializes in Parkinson's disease, and that may necessitate you going to just a Parkinson's exercise class. Not that that is not just as important, but physical therapists are specially trained to be movement sleuths. We take a look at the whole body of the person, and we're really looking at the subtleties of how big the steps are that people are taking, if they're swinging their arms, what difficulties they're having with balance.

Those issues may not necessarily be thought of or a part of those exercise programs. I like to say that a little bit of exercise is better than no exercise, but in my dream state, I would love to have people have physical therapists to open the door, to educate that particular person with Parkinson's, to find which exercise program is best for them because there are so many different programs that are out there now, I think people feel a little lost as to which one should I go to? Which one is best for me. Really the physical therapist can help you to figure that out.

Dan: Do the exercise programs need to be specific to Parkinson's or are there community ones that they can join and would be just about as good? Because you're not going to find them everywhere.

Heather: Correct. You're not going to find a specific Parkinson's program everywhere. No, I tell my patients all of the time, "Find something that you enjoy doing." That's the bottom line. There's no specific exercise that is the best for people. If you like to cycle, find a cycling program. If you like to do chair Aerobics, you could do aerobic program in a seated position in a chair, you could do water aerobics, you could take a Zumba class, but it just needs to be something that's getting that heart rate up and something that's challenging them on a consistent basis. That's the second most important thing is it needs to be consistent.

Dan: I suppose sometimes you want to vary what you're doing so it doesn't just become a boring routine.

Heather: Absolutely. Getting that challenge in there, if you can find two to three different classes to go to or different instructors, that would be totally the best possible piece.

Dan: What are some of the key aspects of exercise?

Heather: The things that we're looking for, for people specifically with Parkinson's disease, they're pieces of the puzzle is how I say. You need something that works on balance. You need something that works on cardiovascular fitness, you need something that is going to work on your strength and you need something that's going to work on your flexibility. Those are like the core pieces that I would say, but then you also want to look for things that help with mindfulness, meditation. Some people may prefer to do a yoga class to help with things like that. On the other end of the spectrum, you have people who are doing very high-intensity, very challenging programs that are out there. If you stick to those four basic aspects and look for a program that challenges you those four ways, that'll probably be the best fit for you.

Dan: Do you have some examples that would incorporate many aspects of what you've just talked about? Many of those elements?

Heather: Yes, a lot of the dance classes that are out there do that. They'll start with a warm-up stretch, shifting of your weight to just make a turn. You're going to work on your balance, having to stand on one leg for a certain amount of time, or perhaps pull someone across the room and lead and dance with you is going to challenge you on a cognitive level. Water aerobics do a great job of doing that as well. The challenge for the cycling programs is that they don't generally incorporate a lot of upper body movement. It's more aerobic. If you do have a cycling program, you also

want to incorporate some of their aspects of upper body movements as well as balance.

Dan: When I swim, I see a lot of older women in a water aerobics class and they really get into it. They're motivated, everything, but it seems like a large part of that might be the instructor. The instructors are generally pretty upbeat and relate to them very well. I don't know whether all instructors are like that, or if you just gotta look or around for one that keeps you going.

Heather: I've heard stories from many of my patients that they've tried several classes and didn't fit for them because they didn't feel as uplifted as they needed. There are organizations out there that specifically do train fitness instructors in Parkinson's specific exercises. I generally try to steer people toward that, but again, if you don't have that, the best advice I can give you is go and try out a class and see what you think about it. It's wonderful for people to keep them from being isolated. It also helps as a motivation, people start looking, "Why wasn't Helen in class today? I wonder what's going on with her."

From that aspect, the group classes can be very beneficial, but we understand these group classes aren't all over. We're really fortunate in today's technology that there are live-streaming classes that people can look for. There are different programs, again, specific for Parkinson's disease, but again, you don't need to have something that is just specific to PD. If you can look online, you can look for different DVDs, videos, the Vimeo streaming services, and you can exercise in the comfort of your own home. If you don't have a car or have a way to get there, we still want to encourage people.

You must move, you have to stay active. Then, again, if you can't find something, contact that local physical therapist, they will have ties to the community and hopefully can guide you to the best program possible.

Dan: I also know there are programs that go along with Medicare supplements that make it practically free, or absolutely free, Silver and Fit, Silver Sneakers, things like that. Even if you're not on Medicare, some insurance plans do have benefits for joining a gym, an athletic facility, a community center, or something like that.

Heather: Exactly, yes. That makes it much more easy to do. I tell my patients that you have less of an excuse to not do it.

Dan: Also, if you do have a little bit, you have to pay and you pay upfront for the year, that's a motivation. I want to get my money's worth, as opposed to paying every time you go. That's a disincentive. Also, there's a social aspect to it, isn't there? If you're in a group, there's some peer pressure to be there and people wonder where you are and they relate to each other.

Heather: Absolutely. That comradery. Then if you, even if you have, say it's not a Parkinson's specific, but it's an age-specific. Parkinson's disease isn't the only thing that people are dealing with. We're all dealing with the effects of aging. Common complaints that people have, misery loves company sometimes. If we're talking about my knee is sore and I'm having difficulty with this and that, and other people are relating to that, it really helps to say, "Hey, you know what, I'm finding that this

exercise group is making me feel better. I'm finding that I'm probably complaining a little bit less about those aches and pains."

Dan: It does reduce aches and pains, getting moving and things like that. You had talked about PT is different from exercise but what is there to say about PT?

Heather: Sure. Physical therapy, and I think a lot of people misunderstand that, it's really not just exercise. We do prescribe exercises and we use exercise, but what we're using exercise for is to prove the functionality of people. If someone's having difficulty getting out of a chair. Yes, we want to make sure that those lower leg muscles and upper leg muscles are very strong and good flexibility but we also want to practice the simple fact of getting up from a chair. We teach people new ways of doing things, because Parkinson's slows down the movements and it can make things slower and it can make muscles tighter, you have to learn new ways of doing old things.

The exercise is part of that. It's a stepping stone to warm people up, but then we're going to talk to you about how are better ways that you can walk. You can be doing a wonderful cycling program, but it's actually not doing anything necessarily to help you swing your arms. We know that people with Parkinson's lose that ability over time. When you lose the reciprocal movement of the upper extremities with the lower extremities, it causes you to be at more risk for falls. Physical therapists are going to help you to find out what those difficulties are and then how do you fix them?

There is a subset of physical therapists who specialize in pelvic floor. Bowel and bladder issues, a lot of people don't realize you don't have to live with these issues. There are actually exercises and programs that you can do to keep that part of the body as healthy.

Dan: How much do you teach people about body mechanics? You can give them exercises to do and show them motions, but do people really want to understand? One thing you mentioned was reciprocal arm motions when one leg is back and your arm is forward, you're counterbalancing yourself. Do you actually talk to anybody about why these things work?

Heather: Absolutely. We talk about the mechanics because if people don't understand why we're asking them to do something, they're not going to be as motivated to do it. I think physical therapists do a great job of explaining, this is "normalized movement." This is the movement that you're showing now because of the Parkinson's and if we don't get you back to that pattern, these are the problems that you could end up having. You could be at risk for more falls. You could be at risk for a shoulder tendonitis. You could have more difficulty with just the ability to get up out of a chair. Having people understand the underlying problem and why we need to fix that absolutely helps to motivate them to keep moving.

Dan: When I would take ski lessons, the instructor would tell you, "You're doing this, you're dropping your hand, you're not planting your pole." It was hard to incorporate that, to really get a feeling for what he was saying, but when they videotaped it, or even when I watched my own shadow skiing, that helped. Do you ever use videotape, show people what they're doing?

Heather: Yes. In our clinic, we use videotaping very often. It's important because people with Parkinson's already have a disconnect in how they feel what's going on in their body and their ability to sense that. Video comes in very handy for that because people may not even notice that that arm isn't swinging or how bent over they were or how frequently they're looking down at the floor and when they see that video, it really does give them a fresh perspective. Then they understand why their spouse might be telling them so frequently, "You need to stand up or why the physical therapist keeps working on that". Because it's something that they're not feeling and now they understand, "Okay, this is the rationale behind what I need to do, because my body isn't giving me the signal to tell me that I'm not doing it correctly."

Dan: Sometimes they say for people who have freezing of gait, they can use certain tricks, almost, techniques, footsteps on the floor or a little laser pointer on the floor, things like that. That becomes more of a higher brain function, at substituting for all those automatic things you used to do. Do people respond to this idea that yes, there's a lot of brainpower and a lot of thinking going into what you'll have to be doing to get normalized?

Heather: Yes. It's really important that we, as physical therapists, explain that. I often say to my patients, it's like if you were driving on the highway and there was a car accident and you were sitting there and you were sitting there and nothing was moving, you can think of freezing a gait like that. "I'm just stuck. I can't get moving." Well, hopefully the police are going to redirect you around that accident and let you go on the shoulder. That's essentially what we teach people in physical therapy is how to use a different part of your brain.

By thinking about what you're doing, you actually override the defective part of the brain that's impacted from Parkinson's disease and you can make that movement happen. I think that's really a blessing in Parkinson's disease because if you have a true paralysis from a stroke, you can think about moving that arm and think about moving that arm. It's not going to move, but in Parkinson's we're actually using a different part of the brain and being able to initiate that movement. I think the more people see how it benefits them, the more they're able to buy into that and the more they're able to do it consistently.

Dan: For exercise, up to what stage of the disease can people really gain benefit? I suppose they do different things as the disease progresses.

Heather: In the early stages, we really push people to a very, I would say, moderate to high-intensity level of activity with a lot of challenging, a lot of what we call dual tasking, where we have people sing a song to us while they're actually doing a balance exercise or counting backwards. When we get more into the mid-stages, we still try to push people just as hard, but we may have to adapt it where someone is holding onto something. When you get into the later stages, I run a group exercise class where my oldest member is 94 years old.

In that seated position, we're still able to elevate the heart rate. We're still able to work out the muscles of the body. I've had patients who are bedbound and you can still get the heart rate up by doing certain movements. There really is no stage that I would say that we should try to skip exercise. It's just how we develop that exercise

that's best for them, but that cardiovascular fitness is important throughout the entirety of the disease.

Dan: Is there anything important to add or take-home messages?

Heather: A take-home message for the people who are listening is this, if you can find a physical therapist who specializes in Parkinson's disease, please do so, find someone to help guide you on this journey to help you find the best exercise program. When you're able to find that exercise program, either with or without the help of a physical therapist, stick with it, stay motivated, find ways to schedule it into your everyday routine. We often know that people with Parkinson's set timers for their medication. Why don't we set a timer on our phones or our alarm system to say, "Hey, this is the time that we want to exercise"?

It's not just enough to say that we're exercising. We also want to have an active lifestyle. That means, yes, I may have exercised for a good hour today, but how many other hours in the day am I spending seated, watching TV, reading a book, eating a meal, on my computer. We have to think about adding in little doses of increased amounts of activity during the day. Going up and down the stairs twice, instead of one time, parking a little further away from the store instead of just sitting through the commercials, maybe getting up and down and walking around the house or doing some sit-to-stands in between that time.

It really is truly an overall lifestyle change and it can feel very challenging in the beginning, but I can absolutely tell you, it will be rewarding in the end.

Dan: Is it worth getting a dog you have to walk?

Heather: Absolutely. I'm very pro-dog for people with Parkinson's disease.

Dan: I could see, you don't want the dog to get underfoot, but you do need that life form there that, "I got to get walked."

Heather: Absolutely. It's a motivation. It's also something to help you feel better. You've got somebody else to take care of, which is a really nice thing.

Dan: Great. Thank you.

Heather: All right. Thank you.

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Dan: Even if you don't want the responsibility of getting a dog, there are lots of ways to get motivated to keep moving on a regular basis. One of the biggest motivators may be that some studies suggest that regular exercise of sufficient duration is an excellent way to preserve motor function and even slow down progression of PD. A physical therapist with special expertise in neurological conditions can advise you on a movement or exercise program based on your specific condition, your abilities, and your preferences. You can ask your neurologist for a referral or find a PT through the website of the American Physical Therapy Association at apta.org.

At the bottom of the home page is a section called "Find a physical therapist", which will take you to a simple form where one of the choices is to find a PT who specializes in neurological conditions. Also on the top of that page is a tab marked "Symptoms and Conditions", which will lead you to a very informative guide to PD and physical therapy. Of course, there's great information on our website at parkinson.org. You can read our publication Fitness Counts written by Heather Cianci to learn exercise methods that contribute to stability.

Here, you will see photos that demonstrate the proper form described, as well as complimentary therapies and partner-assisted exercise. You can find this publication along with additional resources covering fitness by visiting our library at parkinson.org/library. For more podcasts covering exercise, you can go back to an earlier episode in this series by Dr. Bas Bloem. In another one, Jill McClure, one of our Helpline information specialists, covered the benefits of exercise and answered the top questions received by the Foundation on the topic.

You can also get moving today with our PD tailored fitness series that features a new focus every week, from balance to coordination and more. Watch each 12-minute session from home by visiting parkinson.org/pdhealth. As always, our PD information specialists can answer questions and provide information in English or Spanish about today's topics or anything else having to do with Parkinson's. Our specialists can also help you identify a physical therapist near you, including PTs who have completed our Team Training for Parkinson's program.

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