
 Dr. Joseph Schneider - 00:00


Foreign. Welcome to my POTS podcast. I'm Dr. Joe Schneider, and after 35 years as a functional neurologist, a personal journey through stroke recovery, and helping thousands of patients, I'm here to share breakthrough solutions for POTS neurological wellness. From getting out of bed in the morning to rebuilding your nervous system, this is your guide to understanding and overcoming neurological challenges. Let's begin this journey to recovery together. Well, I'm Dr. Joe Schneider. I'm a chiropractor, functional neurologist, and functional medicine doctor. And this is Joey. Hello.

 Joe Quirk - 00:44

I'm Joe Quirk, nutritionist with a candidate towards master's in exercise science physiology. And this is my R POTS podcast.

 Dr. Joseph Schneider - 00:54

This morning, we're going to look at primitive controls of muscle, the sensory system, and the fuel that makes it all go happen. So when we look at pots, we know POTS is dysautonomia. So when we say dys, we mean that the autonomic nervous system is not functioning right. And the function of the autonomic nervous system is to supply fuel to your body and is control your heart rate, your oxygen, your blood pressure, your digestive tract, your endocrine system. So the autonomic nervous system is a really beautiful part of our central and peripheral nervous system. When we bring patients in and we're talking to patients on the phone all the time, every day, we're getting calls that I've been diagnosed with pots. That's really what the first thing they say.

 Joe Quirk - 01:50

Pretty vague, though, right? Pretty broad term.

 Dr. Joseph Schneider - 01:53

So usually what they're saying is that I've had heart rate issues, having blood pressure issues, and I'm having two issues that you rarely say. Talk about the oxygen system. All those systems that they're talking about is to supply oxygen and fuel to your body, your muscle system, but it's also to supply those. That energy to your brain, too, really is important. It's important in the fact that if we don't get proper blood supply to the brain, then there's a lot of degenerative things that can happen. There's a lot of other activities that can happen, like stroke, transient ischemic attacks, syncope.

Dr. Joseph Schneider - 02:31



Now, syncope is one of the worst feelings in the world because if you're lying down, you sit up and you feel a little dizzy and off, but then you stand and you start losing your visual system because you're not getting blood flow to the brain and you fall down. So on top of the concussion, you can have a concussion. You can break bones, you can do a lot of things that are damaging. We've had patients that have sinkable attacks when they are driving, they'll get a motion sickness, their vision blackens with them, they feel dizzy, they can't drive, they may even get nauseated. It's pretty tragic. And that's something that we would never want that to happen to any of our patients. Now, we talked about POTS or dysautonomia. What else do they complain about?



Dr. Joseph Schneider - 03:17

Ehlers Danlos mast cell Ehlers Danlos syndrome, which is a hypermobility of the joint structures that can be either a genetic issue or it can be an issue of central control of the sensory motor areas, which we look at often when we do our neurofeedback. But we also look at that when a patient has Ehlers Danlos, they're going to have either hypermobility of their spinal joints. So as a chiropractor, I was trained initially as a chiropractor. And that mobility dysfunction of spinal joints will cause a local shutdown of your primitive autonomic responses.



Joe Quirk - 04:03

We had that patient, anytime she would come in, most of the time she had ribs out of place and her spine was out of place and she would come in with really chronic headaches and really chronic pain from it.



Dr. Joseph Schneider - 04:16

So part of the POTS diagnosis is if we go through systems, we're going to ask them if you have headaches, migranous type of headaches, or even tension headaches, do you have body pains? And most people have body pains, either a full fibromyalgia where everything is tender, sore and doesn't function right, or they have just partial different areas like shoulders, knees, hips, back, neck pains and things like that. So they can have any combination of the above, where they can have neuropathy going into their fingers and feet, where the circulation isn't getting into those areas of the body. So when you have pots you can be pretty uncomfortable in multiple systems. Chronic fatigue is one of them.



Dr. Joseph Schneider - 05:01

They're not sleeping right, they don't have a good circadian rhythm, body pains, digestive issues, temperature regulation, their heart rate goes up when they get showers, like the hot water makes their temperature go up or they can't stand the water on their skin.



Joe Quirk - 05:18

Just like direct sensory fiber related issues.



Dr. Joseph Schneider - 05:20

The biggest concern there is that where does the POTS come from? Why do I also have pots? We've been talking about COVID long. Covid Lyme disease can cause it, traumatic brain injury can cause it. So there is definitely a dysfunction or degeneration of the control center for pots. When we do comprehensive care with patients, there's usually so many things that are going on, that if you just brought them in and did vertigo training. So a patient has vertigo and then you do training for that system, doesn't always hit every piece of it. Even at the spinal level. You have sensory input that comes in from the body and then that goes up into the brain so that we know that we're moving, we're static, we're sitting, we're standing and things like that.



Dr. Joseph Schneider - 06:14

So the initial aspect of postural orthostatic tachycardia syndrome, it's the body's awareness of what position you're in, because it's those.



Joe Quirk - 06:26

So many multiple systems that are having dysregulation or there's a dysfunction between so many systems. They all have to be treated individually and they all have to be treated comprehensively. So taking the approach of hitting on each single system in one treatment plan is exactly why we get the results that we do. We're able to hit everything with neurofeedback and start to plasticize the brain. Oxygen with O2 and exercise, we're able to help with finding autonomic balance and regulating blood pressure. Heart rate increasing, SpO2 percentage, as well as just starting to get them readapted to. The idea of exercising.



Dr. Joseph Schneider - 07:10


What we're saying is that it starts with the spinal loops that we have, the reflexogenic loops, so that when you sit up, you start activating your musculoskeletal system. So you get sensory input to the brain. Said, I'm standing up now in gravity. Then you get the alpha motor. Neuron fires, says, okay, muscles, keep me upright, don't make me fall. And then in between that sensory system and the motor system, you have another area of nerves called the intermediolateral cell nucleus. Now I've been looking at that for, since 1989. If you're looking at the autonomic nervous system, it really starts spinally. It starts at the spinal level because you have controls that help you to mediate the muscle demand. The muscle demand saying, I'm working, what do I need? I need the brain to keep telling me to work.




Dr. Joseph Schneider - 08:12

But I also need better circulation of the muscle. And that's the capillary beds. And those capillary beds are controlled at the intermediolateral cell nucleus. So chiropractic adjustments actually look at spinal dysfunction. Look at the primitive reflexogenic responses for needs of energy to the rest of your body, which I find like is so

cool, it's kind of crazy. So that's your feed forward mechanism in control. So if you have local control down and yet you still have pots, then you're going to look at higher controls. So there's skeletal muscle, which is the movement of my arm. If I move my arm and I say I have a weight in my arm, five pound weight, those sensory nerves that are within a muscle called muscle spindles and golgi tendon organs are firing. Right.

 Dr. Joseph Schneider - 09:12


If I put a 20 pound weight in my hand and I do the same exercise, how many more fibers are firing with £20 than 5?

 Joe Quirk - 09:22

You got to recruit way more muscle fiber.

 Dr. Joseph Schneider - 09:24


And so they demand that the circulation is high enough to supply the energy for that muscle to work. So when you get some and out of shape and you put them in the gym, they start with the bicep and they do the bicep. I can do like one curl. My pipes are getting really big. £5 just stuck on. They're not impressed. He's not impressed, right?

 Joe Quirk - 09:46

I'm impressed. Anybody that exercises impresses me at this point.

 Dr. Joseph Schneider - 09:50

And then you put a 20 pound, then a 40 pound, then a 50 pound. If you get to the point where all those areas have kind of shut down for a while and you're out of shape, you lose your capillaries, your blood vessels, you know, maybe blood vessels go in that muscle. Would you say that's right?

 Joe Quirk - 10:09

Yeah, I would agree.



Dr. Joseph Schneider - 10:10

Yeah. You would have atrophy. Atrophy not only at the muscle itself, but also of the circulation going to it, of the lymph flow going to it. And there's another mechanism for temperature control is your sweat glands. And they're all controlled spinally at the intermediolateral cell nucleus. So everybody with POTS going to have to walk around saying intermediolateral cell nucleus. You got to get that thing functioning, right? So when you have circulation to your muscle, you need to start building capillary beds. And that doesn't happen overnight. So you have to take systems out of atrophied, like your capillary beds, your circulatory system, and you have to rejuvenate it. And that takes months maybe. Yeah. Each person is so different, right? For those systems come back, so you kind of get in shape. So I've always said that life's a marathon.



Joe Quirk - 11:05

It's definitely not a sprint.



Dr. Joseph Schneider - 11:06

I just love that because life is a marathon. It's definitely not a sprint. But there are times where you want to sprint, but you want to have really good foundational controls of your aerobic capacity. That happens at the spine, right? That basic area of the spine of the sensory stimulation of the mouth motor neuron stimulation of the intermediolateral cell nucleus. And the more that you exercise, the more those pathways are stimulated. So the nerve repairs first and then the end organ, which is your muscle, repairs last. It takes longer time for that to happen. So when you're exercising, you want to make sure that you're eating right, getting enough rest so the body has a chance to start to rejuvenate and plasticize not only the muscle, but the circulation, the lymph flow, the cooling mechanisms of sweat on the area.



Dr. Joseph Schneider - 12:10

And we want to make sure everything is working on the primitive level or the spinal cord level. That's your first thing that we need to know. So people that have developed POTS sometimes getting questions that mean, I exercised all the time, I did all these different things. And you really need to go back and say, like, what kind of exercises were you doing? Were you doing all hiit work or sprint, or are you doing slow movement things, or are you doing aerobic things or are you doing just anaerobic? So what are the capacities of your healing capacity, but also of your resiliency or degenerating processes?



Dr. Joseph Schneider - 12:51

So, you know, the thing about the body is that it's so fascinating that when you start getting really getting into it, which we've been doing, makes you want to learn more, you know, you just want to learn more about it. POTS is usually a multi system of your beautiful autonomic nervous system and your beautiful peripheral nervous system and so on. But it's really kind of the most important part of it, because if I'm not getting the fuel in the body for it to happen, like your oxygen, your glucose, your nutrients, your circulation, then not much is going to happen on the healing end and not what's going to happen on the functional end. We invite you to send us questions.



Dr. Joseph Schneider - 13:33

You know, questions can start to fuel our podcast so we can answer the things that concern you the most about POTS or dysautonomia and the types and forms of exercise that will get you there. If you want to prepare yourself for the marathon of life and the ability to sprint when you need to, then you need to call the Hope Brain and Body Recovery Center, 610-544-9800 and either talk to myself or to Joe Cork and let's get you back to life. Get back to your marathon. Thank you for joining us on my POTS podcast. If you're looking for more support, visit us@hopebraincenter.com or follow our journey on TikTok where we share daily insights and inspiration. Remember, healing is part cost. On living proof. I'm Dr. Joseph Schneider and I'll see you next time as we continue exploring paths to recovery.