Dr. Jill Carnahan, MD - **00:00**

Hey everybody. Welcome to Resiliency Radio, your go to podcast for the most cutting edge insights integrative and functional medicine. I'm your host, Dr. Jill and with each episode we dive into the heart of healing and personal transformation. Join me as we interview medical experts, renowned thought leaders and innovators of all types, helping you on your path to optimal lifespan, longevity and performance. Today's no different. You're going to love our guest and if you've ever suffered from the infamous rust restless leg syndrome that is the topic of our discussion and you're going to find out, I guarantee you something new about this condition that may help you or a loved one. So stay tuned. I'll introduce Dr. Andersen in just a moment.

Dr. Jill Carnahan, MD - **00:44**

In the meantime, I just want to remind you that our clinic, Flatiron Functional Medicine in Louisville, Colorado, just south of Boulder, is accepting new patients and we do virtual visits. So if you're interested in seeing myself or my pa, Fawn or Hannah, we all work together on cases and we are actively scheduling new patients. You can us a call at 303-993-7910 or you can email info@flatiron functional medicine.com if you're not sure, you can schedule a quick 10 minute call with one of the providers to see if it's a good fit and we'd welcome you with your complex conditions of all types. We treat from a functional perspective and like I said, we are accepting new patients.

Dr. Jill Carnahan, MD - **01:27**

Now if you don't know, I also have a beauty line called Dr. Jill Beauty@doctor Jill health.com and you can see this is one of our very best selling favorites that often goes out of stock. I want to just remind you today to go to Dr. Jill beauty.com or Dr. Jill health.com this is the sheer defense tinted SPF. It is amazing in light coverage and out and about in the days of Colorado here as we have lots of sun even in the winter. It's one of my favorite go to's for keeping that skin basically almost makeup free with just a tinted moisturizer but that sunscreen protection. So check that out. Dr. Jill health.com okay, let me introduce our guest today in Resiliency Radio. We're diving into one of the most misunderstood and disruptive neurological conditions I mentioned before, Restless leg syndrome.

Dr. Jill Carnahan, MD - **02:15**

For years RLS has been framed almost entirely as a dopamine disorder. Most of the medications we use are dopaminergic in nature. But what if a large set of patients, the real driver is actually peripheral nerve compression and it's been overlooked. Joining me today is Dr. James Anderson. He's actually a neighbor, which is so cool cuz he's world renowned. He's a leading peripheral nerve surgeon whose research has uncovered a powerful connection between structural nerve entrapment and restless leg syndrome. His published studies on nerve decompression show meaningful improvements in pain, tingling, burning, cramping and most importantly, overall sleep quality. If you or someone you love is struggling for from restless leg syndrome, you will love this episode. So let's dive right in with Dr. Anderson and get on with the show.

Dr. Jill Carnahan, MD - **03:05**

Jim, it is so nice to meet you and to hear about your work and I know that our listeners today are going to find this fascinating because so many people struggle with restless leg syndrome, which is a topic of our discussion and they don't have great answers or they're on medications and they're escalating doses and all. You know how this

goes.

Dr. James C. Anderson - **03:23**

Oh yeah.

Dr. Jill Carnahan, MD - **03:24**

And we're going to dive into some very unique information that you have and you have some published papers on it that I don't think is very prevalent out there in the mainstream knowledge, not only for our patients, but we have a lot of clinicians that listen too. So I am excited if you're listening today. Even if you don't suffer from Russell's like, I guarantee someone you know that's close to you has this. So take notes or send it to someone you care about because you're going to find out some really profound information. Before we dive into restless leg, what it is, how to treat it and what kinds of new things that you have to present. I want to know a little bit more about who is Dr. Anderson and how did you get into this work?

Dr. James C. Anderson - **04:02**

Okay, well I started out, it started out in podiatry. I am a podiatrist and been practicing for a long time, 40 years plus. And that I just went into the area of podiatry not knowing what area of medicine I wanted to go. And I was actually a ski instructor. It's a long story but it went from that to learning that their podiatrist is helping some ski racers in Aspen. And anyway, just dovetailing, learning about podiatry, I never heard about it, went to podiatry school but really about 20 years in my practice that's when I learned more about nerve problems and dealing with them. And my training I had, it's been over 20 years ago was by a neurosurgeon plastic surgeon at Johns Hopkins and his name's Dr. Lee Dillon and he Mainly specialized in upper extremity nerve conditions like carpal tunnel.

Dr. James C. Anderson - **04:56**

And he was constantly being asked by his patients because he had see, you know, significant improvement for his patients. They. They were grateful, and they'd ask him, well, I've got similar symptoms in my feet and my legs. Can you help me down there? And he'd say, no, no, that's neuropathy. It's irreversible. You know, maybe go see your family doctor neurologist, take medication if it gets bad. So it. It kind of. He's a curious fellow. So he decided to do some basic science research on animals and actually did some surgeries on. On animals, rats, basically, and decided that it was working for them and started operating on humans. So basically, he took the concepts that have been done in the upper extremity for many decades of looking for entrapment sites and applying that same concept to the lower extremity.

Dr. James C. Anderson - **05:49**

And so that's where I initially got trained on doing peripheral nerve evaluation and surgery. And then about a dozen years ago, that's when I started doing procedures for restless legs.

Dr. Jill Carnahan, MD - **06:02**

Wow. So, just to intrigue our audience, we're going to go into a surgical decompression option for restless leg. And I'm so excited to talk about that. And before we do, some people listening might not even know what this is. So let's first kind of get the train on what is restless leg syndrome? And then conventionally, what are some of the common causes that may or may not be surgical in nature?

Dr. James C. Anderson - **06:24**

Correct. Yes. That's a good place to start, for sure. Jill. The symptoms basically, is how you diagnose the problem. I mean, there's not really a bonafide test for restless legs. It's really a diagnosis made by the symptoms. And the main symptoms are an uneasiness, sort of a nervousness, like you feel like you got to get up and move. And it's at night oftentimes. And when you're sitting, maybe you're in an airplane or a car, maybe in a movie theater, you have to get up and walk around, walking up or walking or standing tense to relieve it. You can also get cramping, a pulling sensation. Jerking is pretty common, too, from the. In the lower extremity, from the knee down, typically. And aching can be a symptom along with pain.

Dr. Jill Carnahan, MD - **07:19**

So.

Dr. James C. Anderson - **07:19**

And that's different than neuropathy. Neuropathy over on the other side would be burning, tingling, numbness.

Dr. Jill Carnahan, MD - **07:25**

And if I understand, again, in my met, just my limited medical background, sure. Your peripheral neopathy is going to typically start in the toes and then go up as it gets worse. So it's a true.

Dr. James C. Anderson - **07:35**

Correct.

Dr. Jill Carnahan, MD - **07:35**

Ends of the nerves. And it's commonly associated with things like diabetes or anything that would alter the blood flow to the ends of the nerves and the bottoms of your toes.

Dr. James C. Anderson - **07:45**

That's right.

Dr. Jill Carnahan, MD - **07:46**

Versus actually be more of the calf or the.

Dr. James C. Anderson - **07:49**

Exactly.

Dr. Jill Carnahan, MD - **07:50**

Okay.

Dr. James C. Anderson - **07:50**

And that's a lot of it. High percentage is going to between the knee and the ankle and maybe a little bit in the foot. And predominantly it's below the knee, but it can be above the knee. But majority of patients from the knee down.

Dr. Jill Carnahan, MD - **08:06**

Okay, correct. And what percentage? I mean, you're in the clinic and so you. Are you still seeing patients in the clinic and. Oh, yes, yes, I do. And you're in the state here in Colorado, right?

Dr. James C. Anderson - **08:16**

Colorado. Yes, I am.

Dr. Jill Carnahan, MD - **08:17**

Amazing.

Dr. James C. Anderson - **08:19**

Yeah, I'm right down the street. Well, I'm in Broomfield and I'm up in Fort Collins.

Dr. Jill Carnahan, MD - **08:23**

Oh, amazing. And guys, if you're in this area, we're going to be sure and link up all his information. So if you want to see him or call the client, you'll have access to that in the show notes. So I'm glad that you mentioned that because, yeah, when I called you, I was like, oh, wait, you're local. This is great. Even though. So back to this. I loved your kind of differentiation because a lot of people, I find often they'll have that real true peripheral neuropathy and no one check their blood sugar and we find out, oh, they're borderline diabetic.

Dr. James C. Anderson - **08:49**

Yeah.

Dr. Jill Carnahan, MD - **08:50**

One of the first things. And that's a different thing than we're talking about today with a true restless leg. Now, restless. I've seen people as young as 17 and as old as 77. Right. There's a real range. So it's not always. And so from your perspective in the clinic, what percentage of people have you seen that have complained of restless leg? And what's a typical kind of patient? And is this true with the age range and the kinds.

Dr. James C. Anderson - **09:14**

It's true with the age range. It varies quite a bit. I mean, neuropathy I think is weighted more towards the older population just a little bit. And restless legs can be. I mean, I. The youngest I've done procedures on is a 10 year old, believe it or not. Yeah. Very young. And the oldest might be in their 80s, but. But basically it's going to be, you know, a little bit more. I think it's like twice as often with women than men and a little bit more like over age 40. And. And it can be associated with diabetes, too. And that there can be an overlap of neuropathy and restless legs, which is another story. That's kind of how I started to see there's this correlation between the two, for sure.

Dr. Jill Carnahan, MD - **10:02**

Yeah. Wow, that makes so much sense. And so say someone comes in, this is a clinical diagnosis, as you described. And I've done this many times where I listen, I'm like, oh, you have restless leg syndrome. And I tell them what that is. And then. And then conventionally we have things related to dopamine, things related to, like iron or electrolytes. Do you want to kind of go through the differential of our classical, which we would treat?

Dr. James C. Anderson - **10:23**

Yeah. The conventional treatment is going to be with medication oftentimes. And it's thought to be that there's a. Something faulty with the metabolism of dopamine in the brain. And there have been scans, brain scans on that. And it's kind of a little controversial as to whether or not those are really accurate or not. But basically, we know that it is definitely associated with dopamine because when you use dopaminergic drugs, those that help elevate dopamine levels, people do tend to respond. And those drugs are Ropinirole and Meropex. Those are the two main ones that you might have heard about. Those are commonly offered. And also the medications that are used for neuropathy, Illyrica and gabapentin or neurontin, those are oftentimes recommended. So.

Dr. Jill Carnahan, MD - **11:15**

Okay, yeah, that makes sense. And so in my experience, those do work, but the doses that patients often need escalate over time and more. So it seems to be that even if they're helped in the first several years, that over time, they're needing more to control.

Dr. James C. Anderson - **11:33**

Yeah. And what you're talking about, which is leading into this phenomena of augmentation, which is. Could be pretty significant, meaning you have to keep upping the dose. Upping the dose, and you don't get relief. You're just. And you get to the point where. And one of the challenges that I have is maybe 70% of the patients that I do these procedures on do get off their medication, and if they don't, they can at least substantially lower the dose. But they can go through a withdrawal.

Dr. Jill Carnahan, MD - **12:05**

Yes.

Dr. James C. Anderson - **12:05**

Of the dopaminergic drugs. And that can be pretty. Pretty challenging for some of them.

Dr. Jill Carnahan, MD - **12:10**

Gosh, that's. I couldn't agree more. That's why, again, I'm so excited to go down this rabbit hole with you on the other options, because people scaling doses, they stop working. And then if they. And the same with Lyrica and Gabapentin. Frequently, patients do want to get off. It takes a very slow wean. Those are a lot more challenging to get off of as well. So then, besides that, obviously, like low iron, some of these other electrons.

Dr. James C. Anderson - **12:33**

Yes.

Dr. Jill Carnahan, MD - **12:33**

Would you differentiate.

Dr. James C. Anderson - **12:35**

Levels may tend to be low. And iron supplementation, I know, is another avenue that's approached. I mean, those are the main ones is the iron and the dopamine levels that conventional medicine looks at. There's. I think I looked up once, or added up. I think it was probably like 43 different things that you can do for us.

Dr. Jill Carnahan, MD - **12:53**

Exactly. That's why I feel this is so great for both patients and clinicians, because it is not a straightforward thing at all.

Dr. James C. Anderson - **13:00**

Exactly.

Dr. Jill Carnahan, MD - **13:01**

Now, it's interesting because I want to start to go into your research and work on this. The. The concept that it may actually be related to peripheral nerve compression. And I want to start by telling you a little story and why I'm especially interested in this because I personally, for probably 15 or 20 years, have suffered with off and on. Not severe, and I don't take medication, but this restless leg. And when it's exactly how you describe. And what I sometimes do is literally pound where that nerve is with my fist because.

Dr. James C. Anderson - **13:29**

Oh, you do? Okay.

Dr. Jill Carnahan, MD - **13:30**

Right. Like, I just take my fist.

Dr. James C. Anderson - **13:31**

Yes.

Dr. Jill Carnahan, MD - **13:31**

On my leg like that. And sometimes that'll relieve it. So when I heard you talking and read your research before this episode, I was like, oh, that makes so much sense. Because I've always said it like, it's this nerve that's like being squeezed. Right. I think about your research, but just again, in my body, it. Experiencing it, I've always thought, huh, I wonder what's going on with either vascular or nerve. Take us down. Because you've. You've described your mentor and some of the experiments and then what you're doing. But how did you kind of put this together? Was it through that research and your mentor and then what's the. Yeah, let's.

Dr. James C. Anderson - **14:06**

How much time do you have?

Dr. Jill Carnahan, MD - **14:07**

I know. I'm so excited to hear more.

Dr. James C. Anderson - **14:09**

I get excited just listening to your question. What you remind me of today, like to say to people sometimes, is, symptoms follow the anatomy.

Dr. Jill Carnahan, MD - **14:21**

Yes.

Dr. James C. Anderson - **14:22**

You follow me. Symptoms follow the anatomy. So the anatomy. The anatomy deserves some attention. Meaning I don't think a lot of doctors have been trained to do that. And that's what I've learned is. And it's kind of what you're saying. If the symptoms are in the lower extremity, could that be part of the cause? Is it. Is it not there? And exactly what you're doing, you're kind of intuitively knowing, hey, this area doesn't feel right to me. I've had people say that massage in certain areas doesn't feel right to them.

Dr. Jill Carnahan, MD - **14:53**

Yeah.

Dr. James C. Anderson - **14:54**

And. And I think what I'll go into what happened was when I was doing procedures, being trained for doing neuropathy, I was only doing one nerve tunnel in the leg, and that was the common perineal nerve, which is up by the knee, on the outer side, right below the knee joint. And that was the only one I was working on. And what happened? And here's what happened, Jill. I was doing surgeries for neuropathy, and some of these people would have the surgery, and I would do tarsal tunnel surgery in their arch of their foot to get better reduction of nerve symptoms on the planar bottom of the foot. But having done the compare neural nerve, they'd say, yeah, I'm happy with the results, doc, but I've got these weird symptoms. I don't know what it is, but it's.

Dr. James C. Anderson - **15:42**

It's right kind of in this area. And they were pointing to the area of the superficial perineal nerve.

Dr. Jill Carnahan, MD - **15:47**

Yes.

Dr. James C. Anderson - **15:48**

And it didn't happen a lot. But I said, you. Well, you know what? It sounds like you're 60% better, but it's right there. There is a nerve tunnel there. I know about it. And I know how to do surgeries for. I just don't do that much. So I started doing surgeries on that. That nerve branch, and that's a superficial perineal nerve. And indeed, all those other symptoms went away. So my story to you in the audience is it didn't start out like some epiphany from the heavens.

Dr. Jill Carnahan, MD - **16:12**

Yeah.

Dr. James C. Anderson - **16:12**

Where I just started doing this. It was on a gradient.

Dr. Jill Carnahan, MD - **16:16**

Yeah.

Dr. James C. Anderson - **16:16**

And it started first with a superficial perineal nerve. Taking a few people back to surgery.

Dr. Jill Carnahan, MD - **16:21**

Yeah.

Dr. James C. Anderson - **16:22**

And discovering, hey, that's restless leg symptoms. So it gave me more confidence as I went through this, that when people were coming in, Maybe instead of 90% neuropathy, 10% restless legs, maybe if they had 30% restless leg symptoms and 70% neuropathy, I was feeling more confident going ahead and doing those other nerve tones. And then the other thing that happened about a dozen years ago, there's a nerve tunnel in the upper calf called the soleal sling that I was probably one of the first 10 or so doctors in the world to operate on that nerve. And that really opened up that opportunity because there can be a lot of compression on that nerve. It's the nerve that supplies eventually the bottom of the foot. The tunnel is in the upper calf area.

Dr. Jill Carnahan, MD - **17:09**

Got it. Okay. So this is so fascinating because like I said, you and I didn't know each other. And I know before this call, you didn't know that I had any personal experience with this.

Dr. James C. Anderson - **17:18**

Oh, no.

Dr. Jill Carnahan, MD - **17:19**

And just literally the. Today, as I'm preparing for the podcast, I read your paper. There was this big aha. Because I had no idea.

Dr. James C. Anderson - **17:26**

Sure.

Dr. Jill Carnahan, MD - **17:27**

Again, again, as I was describing to you, it's so clearly anatomically related to some of the. And the. The things. And I want to mention, if you're listening, Dr. Anderson has two papers he sent that are published that will include links to. One is called Improved Restless Leg Syndrome Symptoms after Lower Leg Nerve Decompression and Discover Medicine, if I have that right. And the year is this just recently.

Dr. James C. Anderson - **17:51**

Just. Just recently published.

Dr. Jill Carnahan, MD - **17:53**

Okay. I'm like, wow, really?

Dr. James C. Anderson - **17:54**

Oh, yeah.

Dr. Jill Carnahan, MD - **17:55**

Second one, Frontiers in Neurology. Nerve Decompression and Restless Leg Syndrome. A retrospective analysis again by you. And this was 2017, I believe. So we'll. We'll link up those papers. But those are part of what I'm talking about and what I love to hear from you. And this is so common, too. My most interesting guest is you had this curiosity and you're willing to kind of step outside. Well, you know, what? If this is. And we have informed consent, let's try this. And you had this great success. Tell me. It's. It looks like both the studies showed major improvements across pain and tingling, burning, cramping, and that creepy crawly sensation. Tell me about. In my mind, it's very similar to the original carpal tunnel that your mentor did. Right.

Dr. Jill Carnahan, MD - **18:32**

But maybe just quickly explain to our audience what does this surgery entail and why would that, you know, getting rid of the pressure improve symptoms?

Dr. James C. Anderson - **18:42**

Well, the. Any. Any excessive pressure on a nerve. Nerves don't like that excessive pressure. And a real simple analogy is one of the. Is kind of like a garden hose. Very simplistically, a lot of the nutrients. And I'm just being very simplistic, a lot of the nutrients that your nerves need come from the lower. The spinal cord, lower back, and they are transported through. It's called axonal plasmic flow through the nerve. And when there's compression, it's almost like the nutrients that need to get to the nerve cells. Are not coming down. And when you're getting rid of that pressure, it's just like stepping on a garden hose. Water doesn't come out the end. So the nutrients aren't getting to the nerve. And also the toxins that need to be relieved from the nerve aren't able to.

Dr. James C. Anderson - **19:27**

It's called antegrade and retrograde flow going back up to the spinal cord is not occurring. You're not getting that proper flow. And that's just one of maybe 12 different factors that can happen when there's compressional nerve. So all we're doing is simply opening up soft tissue structures that are compressing the nerve. We do want people walking and ambulating because we don't want them to be immobilized because that may create scarring and not allow for the opening to stay there. You want to keep everything open and free so that the compression is gone afterwards.

Dr. Jill Carnahan, MD - **20:03**

Hey guys, just a quick moment of your time to pause and remind you. Many of you have been fans and listeners and subscribers for a long time. And if you have, you certainly know about my documentary, doctor Patient Movie. But if you are new to this channel, I always just want to remind you. Just the other day I went to my clinic and I got a six page handwritten letter from a 28 year old female who went through difficulties with Lyme disease and mast cell activation and many complex chronic diseases. And she wrote me, literally a six page double sided, single spaced letter handwritten about her struggles in the world and with illness. And it was so profound it had me in tears.

Dr. Jill Carnahan, MD - **20:44**

And towards the end she said, somehow I found your book unexpected and your documentary and it really transformed my life, giving me hope that there was something else out there. And she's now become a practitioner in holistic and integrated medicine. And it literally, when I read that letter, brought me to tears because I know sometimes our work out in the world can touch people deeply and we may never ever hear it. And for someone to take the time to handwrite me a letter for me, there's no greater joy. So if you're out there listening and you haven't yet picked up a copy of my book Unexpected, you can find that on Amazon or Barnes and Noble or anywhere books are sold. It's also on audible if you prefer to listen while you're running or driving or doing something in the

kitchen.

Dr. Jill Carnahan, MD - **21:25**

And again, it's unexpected. Finding resilience through functional medicine, science and faith. And my movie can be found@doctor patient movie.com. You can watch it free with commercials on YouTube or Tubi. And you can also get it on Amazon Prime. So I just wanted to share because that letter impacted me so much that if you're out there listening and have not yet grabbed a copy of my book or the movie, I assure encourage you to do so. Okay, let's get back to Dr. Anderson. Got it. And this is literally like in my mind, the only thing medically that I know of is like a compression syndrome. A true. Where you have, you know.

Dr. James C. Anderson - **21:58**

Exactly.

Dr. Jill Carnahan, MD - **21:59**

Is that similar to what you're doing is you're opening it up and actually are you like going through in one area and going down that tunnel or how does this actually procedurally.

Dr. James C. Anderson - **22:07**

Well, it's hard to put in words. I mean, it depends on that. It depends on the nerve tunnel area. But like a lot of this is fascial tissue, like the superficial perineal nerve. There's fascial tissue for the audience. Think of it like gristle. It's that lining, that tight connective tissue that's over the muscles and a couple of these nerve tones. That's what we're doing is partial part of the dissection and opening is dissecting through that fascia that's pressing down on that nerve. And you're not removing it, you're just making a cut through it so that it can expand. And it does read here. But it's creating a bigger opening or aperture for that nerve to travel through. And one thing, if I make. I want to talk a little bit about the Venus component.

Dr. Jill Carnahan, MD - **22:54**

Yes. To this.

Dr. James C. Anderson - **22:55**

Would that be a good time now to talk about that?

Dr. Jill Carnahan, MD - **22:57**

Let's dive in.

Dr. James C. Anderson - **22:58**

Okay, so this is what's interesting. And one of Our most popular YouTube videos is a video. I did a very. I just do these quick two minute videos. I, I like, I used to run in the mountains, now I hike. But I'm getting older and I just stop and do a video and thoughts come to my mind. And this one was about why walking instantly gets rid of your restless legs. And this is just a hypothesis and I think we need more research on this. But it really resonated with the public out there. And so here's the idea. When you have a tight nerve tunnel, think of it like the nerve might have compression on it, right. Obviously. And adjacent to that you have the vein, like a couple of the nerves tunnels I'm opening up in the same area is a vein.

Dr. James C. Anderson - **23:54**

So there's compression on vein. There's a compression on the nerve. So the compression on the nerve we know is irritating. The Nerve, it's an irritant. In fact, our second paper on restless legs, we did EMG studies so we can show before and after the nerve tunnel was open that nerve functions improved. So we know that we actually did put electrodes in the muscles so that when we tested the nerve before a certain evoked potential action potential occurred and then afterwards it improved. So we know that. But what we haven't proved by studies is the negative effect that same pressure has on the veins. Veins are very squishy, very flexible, or very compressible, I should say. So an example would be in the solo sling. The soleus muscle is a very powerful venous pump.

Dr. James C. Anderson - **24:47**

So when you're walking, it's like, think of it like water in the sponge. But in other words, your calf muscle is like a sponge. And when you compress that sponge, it's going to squeeze the water out. Well, when this muscle, the calf muscle squeezes, it's going to push through the veins, the blood back up to your heart. But if there's a tight nerve tunnel, it has to overcome that pressure gradient.

Dr. Jill Carnahan, MD - **25:10**

Yes.

Dr. James C. Anderson - **25:10**

And if you're laying down, blood gets down through the arterial side just fine. But as it's trying to go back up, I think that's what's happening. There's a buildup of pressure in these leg compartments. So when I'm opening up the tunnels, I'm also facilitating kind of rebalancing, I guess, the inflow and outflow of blood to the extremity. And in a way, I think you just said something about compartment syndrome. I think what's going on might be just a very low grade chronic compartment syndrome associated with this. Does that make sense?

Dr. Jill Carnahan, MD - **25:45**

Oh, my goodness. It couldn't make more sense. And I'm going to go on from what you just said because I have patients with severe mold toxicity. Environmental toxic load. Also POTS dysautonomia, which ends up being pooling of the blood in the venous. In the extremities, in the venous.

Dr. James C. Anderson - **26:01**

Right.

Dr. Jill Carnahan, MD - **26:02**

Just like you're saying. So for that population, which I'm going to relate to this restless leg in a second.

Dr. James C. Anderson - **26:07**

Sure.

Dr. Jill Carnahan, MD - **26:08**

Also, movement and the strength of their lower extremity muscles is so critical because it's almost like that pump that needs a pump flow. The heart isn't working and don't get preload to the heart and then they get dizzy or lightheaded or tachycardic or raised heart rate. But it's very similar in some ways to this inability to get the blood flow Back now here's what interesting that was as I was listening to you carefully mentioned this tightness. And if it's compressing nerves, but possibly also the venous system. Again, just my n of one personal experience. When I have the most symptoms, if I was in a moldy building or a place where I had a real toxic exposure that night, almost guarantee that I'll wake up with severe restless leg.

Dr. Jill Carnahan, MD - **26:49**

And I have a theory, and again just my theory that toxic load for me not clearing lymphatic venous stuff and causes more stasis. And then again thing with the compression because lymphatics and fascia are in here too. And lymphatic place where we like in the capillary level. That's where the toxins are released from the cells and then carried back into the venous system and back out through respiratory or urinary tract or whatever. So there's again going further. It makes sense that. And again, in my specific I think some of my patients have more symptoms like me after a toxic exposure, which makes so much sense with your venous and lymphatic insufficiency.

Dr. James C. Anderson - **27:29**

Right? Perfect. I love it. I like that theory. That's a really good one. I mean with the lymphatic straining out too. The same one thing you made me think about that I want to share is I'm just adding to the conversation when I'm doing this. I mean what you in functional medicine do, you're looking at the direct cause, which I appreciate, but what I'm trying to say is the part of the irritation of the nerve, I I mean I understand the toxins and stuff, but all that will make it can make the nerve more sensitized so that if there is this compression going on also. It's not the full answer maybe, but it's a part of what's happening to that nerve. It's what part of what's irritating that nerve branch.

Dr. Jill Carnahan, MD - **28:15**

Oh, it makes so much sense. And again like you said, and even with this whole population like myself that have more the mast cell and that what they have is they have permeability of the capillaries so they get more fluid in the interstitium which creates pressure. And also it's more likely compartment syndrome just from the extracellular fluid. So again, so exciting because it makes perfect sense still, like I'm not negating your solution because obviously it all goes together. Like to me it's so powerful that you have this way that you could like and how cool is surgery that you can just get that immediate response. Do patients.

Dr. James C. Anderson - **28:49**

Right.

Dr. Jill Carnahan, MD - **28:49**

Well, like, right away, like. And what's recovery like from this?

Dr. James C. Anderson - **28:53**

Yeah, well, we recovery. They walk the next day. They're walking immediately. I just make sure they slow down quite a bit for about three days. Like, elevate maybe 45 minutes per hour. But they're walking. And we have people. We actually have quite a few people from out of state and sometimes other countries that come here. It's funny, Joe, because I'm. What's a biblical thing? You're never a prophet in your own land.

Dr. Jill Carnahan, MD - **29:16**

Yes, exactly.

Dr. James C. Anderson - **29:18**

I feel like that's me. Somebody could be a mile away, and they don't even know anything about me.

Dr. Jill Carnahan, MD - **29:23**

I mean, I'm so excited to know you because I. You're brilliant, and it's amazing. I'm like, you're in my backyard.

Dr. James C. Anderson - **29:29**

I know. Exactly. So it's funny. But I mean. And I. People that come into me locally have to explain a lot of this, and I try. I take. I like to. I take pride in teaching. I love to teach and take the time to teach them. But when they're from out of state, they listen to our YouTube channel. They maybe read my book. They know about it, and it's like, it's. They really get it, you know, but not locally. So what else? Okay, so, yeah, so what I was leading up to is to answer your question was if they have one leg done. Like, I have somebody from New York State this week, right? So she was here last week. She came in on Monday. She's doing better already. She can tell, you know, significant improvement, maybe 70, 80% better, one leg.

Dr. James C. Anderson - **30:11**

So she's ready to do the other leg. So we. We. We try to leave that gap in space and time. It's not practical to do both legs, but all at once. But we. We do like to have some assurance that they are pretty sure they're doing better before we do the next leg. And then they. They go home. And she'll be flying out probably Friday or Saturday after surgery tomorrow. So the.

Dr. Jill Carnahan, MD - **30:32**

Pretty quick. And I'm assuming outpatient for the most part.

Dr. James C. Anderson - **30:35**

Like, outpatient. It's.

Dr. Jill Carnahan, MD - **30:36**

We.

Dr. James C. Anderson - **30:36**

We actually have our center. So it's local with IV sedation.

Dr. Jill Carnahan, MD - **30:40**

Yeah.

Dr. James C. Anderson - **30:42**

And. Yeah, that's pretty much it. And most people usually can tell within a few days and. And probably somewhere down the road about three months is when they probably have maybe 90% of the improvement behind them.

Dr. Jill Carnahan, MD - **30:55**

Amazing. Good. That's just really profound. What. I always find it interesting to talk specific patient cases. Is there a case or two where it Was kind of like maybe they'd been everywhere and tried everything, and you had either a young or an old person or someone in between. I would love to hear just something that surprised you even in. In what you've seen.

Dr. James C. Anderson - **31:14**

Oh, man, I got so many.

Dr. Jill Carnahan, MD - **31:15**

I know, right?

Dr. James C. Anderson - **31:17**

That's gonna be the most difficult question. Man, I can think of so many people. I'm thinking of a nurse from Canada. Very lovely lady, very articulate nurse. Came down, and she was so grateful. Just did extremely well. Really researched me, which I love. I like it when people really check it out. You know what I mean?

Dr. Jill Carnahan, MD - **31:42**

Yeah.

Dr. James C. Anderson - **31:42**

So. So she comes to mind. I've got a couple right now. I call them Thelma and Louise. They. They're right on top of my mind because a lady from New York.

Dr. Jill Carnahan, MD - **31:53**

Yeah.

Dr. James C. Anderson - **31:53**

Messaged them on a Facebook support group.

Dr. Jill Carnahan, MD - **31:56**

Oh.

Dr. James C. Anderson - **31:57**

And so one of them. I maybe won't mention names. One of them's from Oklahoma, one's from Georgia. They both heard about me on a Facebook support group because people are talking, and they. They got to be friends, and then they came here for surgery about a week apart, and then they went back home, and they. Actually, the negative thing was they tried to mention this on these support groups, and they were kind of really. It upset a lot of people. They don't. They're not ready for this, I don't think. But. But they're. It really bonded them together. And now this lady that's here this week is. Is buddies with them, so.

Dr. Jill Carnahan, MD - **32:32**

Oh, how neat. I love it.

Dr. James C. Anderson - **32:35**

They're just a hoot. Like, I'm. I'm kind of dabbling on my own podcast. I'm starting. It's called the Nerve of It.

Dr. Jill Carnahan, MD - **32:41**

Oh, I love it. Yeah.

Dr. James C. Anderson - **32:43**

The nerve of it. And I. They. I've only done two, and it's just. I'm busy, and eventually, hopefully, I can do this at least monthly or something, but they were on the podcast, these two ladies.

Dr. Jill Carnahan, MD - **32:52**

Oh, I love it. We're gonna have to link up to that, too.

Dr. James C. Anderson - **32:55**

Yeah, they were. They're really. They're really awesome. So. And. And maybe the youngest one that ever came here. I'm thinking about her because her mother every year sends us a thank you card and says something about. I think the card came in today. One of my staff says that means that we're gonna get a gift next week because they. Their daughter has autism. And they brought here.

Dr. Jill Carnahan, MD - **33:17**

Yeah.

Dr. James C. Anderson - **33:18**

They flew here so that she could be comfortable with me. And then they flew her back.

Dr. Jill Carnahan, MD - **33:24**

Wow.

Dr. James C. Anderson - **33:25**

And then she came back again for the surgery, so and that poor mother. I get kind of emotional just thinking about it. But she was sleeping with that child, I think, for like 10 years. I mean, from.

Dr. Jill Carnahan, MD - **33:38**

Yeah.

Dr. James C. Anderson - **33:39**

Forever. She's sleeping with her, but now she doesn't need to. And. And every year she updates us. So that was very special.

Dr. Jill Carnahan, MD - **33:46**

Oh, and I can think of a patient right now, too, who is probably 10 or 12, and literally every night, most nights.

Dr. James C. Anderson - **33:52**

Right.

Dr. Jill Carnahan, MD - **33:52**

During the night or rubbing her legs and the same exact situation. And I know that. Yeah.

Dr. James C. Anderson - **33:59**

I mean, and I guess one other thing is I've gravitated towards that population. I call them silent sufferers. They never, you know, they're silent sufferers that just never have it appreciated how bad they're doing. Okay, hold on. That's my cell phone. So I'm sorry.

Dr. Jill Carnahan, MD - **34:14**

Okay. No worries.

Dr. James C. Anderson - **34:15**

No, but my. No, my. I'm just saying that people go to bed at night and they don't. They don't even know. People don't know about it. They're. It's silent. They get up and they walk around, or their spouse is sleeping and. And it's just.

And they can kind of perform during the day and they just brush it off, you know, and their quality of.

Dr. Jill Carnahan, MD - **34:35**

Life is so dramatically affected.

Dr. James C. Anderson - **34:37**

Yeah.

Dr. Jill Carnahan, MD - **34:37**

Or like, in this case, I'm sure your patient and my patient that I'm thinking of right now, too. The parents. I mean, they're deprived every night because of this, and they love their child, so they don't.

Dr. James C. Anderson - **34:46**

Right.

Dr. Jill Carnahan, MD - **34:47**

But it really affects the whole entire family. Jim. I love that story. And I love. It's. It's why I do. What I do, too, is every once while you get thank yous and for grateful patience, and it's just like, that's the best reward we could ever get.

Dr. James C. Anderson - **34:59**

It is. That's why you keep. Keep doing it. I feel like it's. It's my. It's. It's. It's my calling, Jill. I feel like it's my calling. It's. I. It's not by accident that I was placed here and have met the people that have helped me through this. You know what I mean? And it's kind of odd because I'm a podiatrist, so people kind of scratch their head. What's a podiatrist doing with this? You know what I mean? So.

Dr. Jill Carnahan, MD - **35:23**

No, I love it, and that's why I wanted to hear your story. But I can tell always, especially your heart for this is so powerful and it's so fascinating because it is one of those things. Again, I know what this is like personally, and I know how very disruptive and devastating it can be, but many people who don't know, they just hear that word restless leg. It's kind of like hot flash or something that, like. Oh, that can't be bad. Right. Like, whatever, deal with it. And the truth is. Yeah, yeah, I was suffering from it. It's a really big deal.

Dr. James C. Anderson - **35:53**

A new name, I've always said, doesn't sound that bad.

Dr. Jill Carnahan, MD - **35:58**

You know, Profound nighttime disruption disorder.

Dr. James C. Anderson - **36:01**

Yeah. In the poor patients, they think they're. They get the impression that something's wrong with them.

Dr. Jill Carnahan, MD - **36:08**

Yeah, they exactly.

Dr. James C. Anderson - **36:09**

They take it like, am I okay? You know.

Dr. Jill Carnahan, MD - **36:12**

Right.

Dr. James C. Anderson - **36:12**

Because they know and it's very, you know, it's filled with depression, it's filled with. With anxiety. And, you know, they wake up the next day and that during the day I say that people with this are so anxious about what the next night's going to bring for them.

Dr. Jill Carnahan, MD - **36:31**

Yes. Because they learned half the.

Dr. James C. Anderson - **36:32**

Half the struggle is the anticipation. Oh, what's tonight going to be like?

Dr. Jill Carnahan, MD - **36:37**

Exactly. And I think in your study, sleep quality, which is what we're talking about, obviously market improved. Is it like, was there any sort of percentage or how would you grade that as far as the improvement you saw after decompression?

Dr. James C. Anderson - **36:51**

Boy, that probably have to look at the paper right now.

Dr. Jill Carnahan, MD - **36:53**

Percentage significant.

Dr. James C. Anderson - **36:55**

It was pretty. Pretty significant. I mean, just generally I tell people when the surgery works. Does. I mean, there are people where if it doesn't work, it's a neutral event. I've had it not work. Exactly. I mean, you need to hear that. But. But it's going to be majority, probably about 70 to 100 improved overall, perfect as an improvement ratio range. So.

Dr. Jill Carnahan, MD - **37:18**

And then say someone's coming in and you want to make sure this is the right thing for them. Do you. Do we know this is a clinical diagnosis? And by now you had a really clear idea just talking to the patient of who's a good candidate. But how do you screen a candidate? Do you do any other labs or what do you do to make sure it's not just iron or something?

Dr. James C. Anderson - **37:35**

My main, My main emphasis is clinical exam.

Dr. Jill Carnahan, MD - **37:39**

Okay.

Dr. James C. Anderson - **37:40**

We look for. To nail signs in the tunnels. We look for meaning you press or tap that you tap. And there's some paresthesias. You might find there's some point tenderness, like a provocation sign along the nerve tonal areas. And a lot of people actually have. Clinically they have weakness. Like, like we. I'd say a simple thing like spreading your toes apart. Well, if somebody can't do that. That is reflective. It could be the tarsal tunnel, but it could be going all the way up to the tibial nerve because you should be able to abduct your toe out. And some people. And so I'm just saying muscle testing. We do Ortenberg wheel testing to test sensitivity and a lot of people have reduced ability to feel sharpness and balance issues and weakness. I would say.

Dr. James C. Anderson - **38:36**

So a lot of it's more clinical than EMG and nerve conduction. For sure.

Dr. Jill Carnahan, MD - **38:40**

That makes sense because again, I've ordered many EMGs and nerve biopsies and I find them not.

Dr. James C. Anderson - **38:46**

Right.

Dr. Jill Carnahan, MD - **38:46**

Useful most of the time.

Dr. James C. Anderson - **38:48**

Right. Well, in the plastic litter, plastic surgical literature, I think for carpal tunnel there's like a 40% false negative.

Dr. Jill Carnahan, MD - **38:55**

Exactly. So. Well, Jim, this is such a great topic. I am delighted to know you as neighbor and to know what you're doing out there. I can't wait to get this podcast out to the world. You have a book, you have the papers. If you're listening, put that in the show notes. But tell us just a bit about the title of your book, where they can find it and where your website is if they want to know more.

Dr. James C. Anderson - **39:15**

Yeah. The title of the book is A Perfect Night's Sleep on Amazon. I think it's a pretty basic, simple, good read. And there's audio, also an audiobook now. But it just explains how I got to where I'm at some testimonials. It's got a good mixture of I think testimonials plus science. And then our, and it's Anderson Podiatry Centers. Our, our website and then our YouTube channel is Anderson Podiatry Center. And, and like I said, stay tuned because we are starting to do slowly graduated into a, a podcast I might say we're working towards and hopefully the next three months or so we're going to, we want to create a nerve mapping process on the computer so people can go on the Internet and it's going to be a nerve mapping educational platform.

Dr. Jill Carnahan, MD - **40:12**

Wow.

Dr. James C. Anderson - **40:13**

So people can learn like you're saying earlier about the symptoms follow the anatomy so that they can learn more about their own anatomy. Because I think by educating the public out there they're going to be more powerful at making informed decisions about some of these things and not just with the rest of the, but also with neuropathy. So I really want to educate people more and use this platform for that purpose.

Dr. Jill Carnahan, MD - **40:40**

I love that. And we'll be sure and share a link to your podcast as well. So book, podcast papers will all be in the show notes. Okay Anderson, thank you for your work here, thank you for sharing it on our podcast here and just appreciate your heart for helping these people who are suffering. Thanks so much for joining me for another episode of Resiliency Radio. Dr. Anderson's work really challenges the old assumptions about restless leg and opens the door to a far more helpful and mechanistically plausible understanding of nerve related symptoms. If today's episode sparked your curiosity or gave you new insight into your health or your patience, I encourage you to explore his published studies. There'll be links in the show notes or wherever you listen to this podcast and continue the conversation with your doctor or with your patient.

Dr. Jill Carnahan, MD - **41:27**

If you're one of the clinicians who listens to us routinely and hey guys, I always just want to remind you that we at Flatter and Functional Medicine are accepting new patients. You are welcome anytime to call and explore with my nurse practitioner, Hannah, or my pa Fawn. They both have full prescribing privileges and work with me on all cases. And if you're more interested, you email us@info flatironfunctionalmedicine.com or you can call 303-993-7910 and we'd be happy to schedule an intro call with you if you're interested. Thanks again for joining us today. Please do subscribe. Leave us a review wherever you're listening to this podcast and I'll see you again next week on Resiliency Radio.