Chronic Pain & BP: Unveiling The Link Transcript

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Introduction and Dr. Stoll's Background

And welcome back to the Summit. And today, I'm really excited to welcome a dear friend, Dr. Scott Stoll. How are you today? I'm great Laurie, thank you so much.

It's just a delight to be with you again. Yes, absolutely. Well, you know, this part of our conversation, I really wanted to focus in on chronic pain in hypertension, chronic disease in general.

And no one else. What I asked rather than you. Could you give us a little background of what your specialty is as a physician and why chronic pain would be something that we should be concerned about with hypertension? Yeah, absolutely.

So my specialty is something I kind of stumbled into in my fourth year of med school, thinking about what I wanted to do. And I love the musculoskeletal system.

And somebody said to me, Have you ever heard about physiotherapy, physical medicine, rehabilitation? I had no idea what that was. But I discovered that physical medicine is just that it's really working with the body, the musculoskeletal system and neurologic system to help restore function.

And one of the reasons that I really loved my residency is that they always talked about adding life to people's years. And I think even my introduction to lifestyle medicine philosophically started in residency with that idea of kind of looking out of the box to try and help bring resources around people to solve problems and improve the quality of their lives, unlike so much of medicine, as you know, which is just treating and managing symptoms.

You know, physiotherapy is really much more focused on enhancing quality of life. And part of our residency is, you know, working with spinal cord injury patients and amputees and brain injuries.

And the other part of the residency is sports medicine, musculoskeletal medicine, spine, which is where I specialize. But when I got into practice, I learned that even the basics that I had learned in residency of trying to help people with their pain was still just trying to mitigate a lot of symptoms.

Treating inflammation, treating pain, but again, not going down to the roots of the problem. And so I started asking questions early in my career about what's the origin of pain and how do I treat it, and how can I really help regenerate whatever damage to the pain is resolved because the tissue is healed.

Now that's perfect. So let's just dove down into the roots. Can you tell us like what is the root cause of chronic pain in particular? I mean, there's acute pain from injury, but this chronic pain and there's so many things that I think mind body connection is important to you.

But can you share with us what your thoughts are and what you feel? Yeah, chronic pain. That's a that's a really big topic.

Understanding the Roots of Chronic Pain

But we'll try and boil it down and just peel back some of the layers. But like you mentioned, you know, there's several ways to look at pain. You know, we'll first start with like injured tissue because you can have damaged tissue that occurs through all kinds of accidents and circumstances in life.

We can have slip and falls or injuries to tissue where it gets partially torn. And because of circumstances that we continue to work with that injured area that doesn't heal or because our system, the way that we're eating, living our lives is not sufficient, our body doesn't heals.

We end up with kind of chronically damaged areas that are a source of chronic inflammation and pain. So that's one layer. There's another layer of just chronic inflammation because of our lifestyle, you know, our lifestyle choices, as everybody is learning in this amazing summer time, tipped the scales in favor of chronic inflammation.

And when we look at inflammation in our body uses inflammation to heal tissue. And so, you know, normally if somebody twists and ankle area becomes inflamed because your body is sending cells into the area to chew up the damaged tissue, followed by growth factors to repair the tissue that when we're eating and living unhealthily, we're chronically damaging our system.

And so our body has a chronic, high inflammatory load, which can be not only a source of pain, but also limited healing. We also have the mind body component of pain, which is really very interesting, not going to too much depth, but there's this interface between pain and suffering.

And the other component is that our tissue has a memory. And so we can, you know, accidents and injuries. The tissue itself remembers the injury or the accident or the trauma, and it can be a source of pain.

And so, you know, treating somebody holistically to help them mentally release the pain as well as treating the tissue itself can help to eliminate those painful situations as well.

And so treating somebody for chronic pain requires a little bit of investigative work. You know, obviously, it's going beyond just an MRI. It's a really good physical examination to identify the tissues.

It's a really good examination of body alignment to see if things are out of alignment. And that misalignment is over, stressing certain tissues and causing pain.

And it's also an evaluation kind of spiritually, psychologically to try and understand if there is, you know, trauma or suffering that's also involved that needs to be alleviated and released to bring total healing to the body.

And one of my favorite books is The Body Keeps the Score. That's a great book, isn't it? Oh, my goodness. It's like such an eye opener. But getting back to hypertension and chronic inflammation, do you feel like this could be tied to hypertension, people maybe who are struggling or would have maybe dips and flows of their blood pressure, other other chronic diseases?

Yeah, absolutely. When we look at the what happens to the body when you're in chronic pain, you know, pain elicits a sympathetic nervous system response, a fight or flight system when we're in pain.

And so if you have chronic pain, it's a stressor on the body. And your body interprets that stress through the lens of kind of an emergency. So it activates this fight or flight response, which releases, you know, all of these hormones, the epinephrine, the the cortisol that, you know, adrenaline that drives blood pressure up because of the this high sympathetic discharge in the system.

And so chronic pain directly impacts your blood pressure in that way. You know, it's high sympathetic, low parasympathetic tone. And the blood vessels which causes the blood vessels to narrow down and become restricted, which increases the blood pressure.

And so, you know, medicine often treats this with blood pressure medications, but doesn't go back again to say, well, why is the blood pressure elevated?

Obviously, the lifestyle factors, but is there a chronic pain component that's causing disruption in daily activities that's causing physical stress? Disruption in sleep is also another stressor that can be impacted by chronic pain.

And then the emotional stress of pain, you know, the emotional stress of having limitations or being fearful because you're hurting or being depressed because you can't participate in life in the same way.

So it has this multiplier effect, you know, on our body. But all kind of diving down to the same level of driving the

sympathetic discharge and driving chronic inflammation, which is again going to impact the blood vessel diameter and blood pressure.

So when someone comes to see you because they can't see you in person or zoom or via whatever modality you're caring for someone, how do you start the investigation or do you look at pain in general the same through the same lens?

Or like where does that investigation even begin? And maybe some ideas for people to start thinking about their own pain in a different way? Yeah, that's you know, it goes back to what we learned in medical school.

Right? Take a good history and be a good listener. I think, you know, what I've learned through the years that it's it's easy to make the mistake as a physician to just assume that, you know what's going on.

I've got knee pain. Well, let me take a look at you and let's examine why your knee hurts your good physical examination and discover that.

How Chronic Pain Raises Blood Pressure

But I've learned through the years, as I know you have to just sit back and ask good questions, curious questions to really understand the totality of someone's life, you know, to understand when it started, there were any other kind of conditions that existed before it started, how it's impacted, you know, their total body having compensatory issues on the other side of their body, how it's impacting sleep.

Maybe they're making different dietary choices because of the pain that's causing persistent inflammation, making the condition worse, how it's affected them emotionally, and holding stress in their body in those tissues.

And once you have a really good history and understanding of that patient, then you can kind of begin to write a more comprehensive plan to help them overcome the pain.

It's not just the reductionistic idea of medicine. We just treat the one thing, you know, everything is connected in the body from the big toe at the top of the head.

Emotionally, physically, spiritually, it's all connected. And so when we begin to treat the totality of the person in the context of the pain, you know, certainly mate will treat knee injury, but we'll also treat the system.

Then you have a beautiful resolution that allows people to really move on and in a way that, you know, brings vitality and abundance to their life or.

Fertility in abundance. I like that. So are there any across the board interventions or discussions or things that you counsel patients to do that helps the majority of your pain patients?

Yeah, so and you'd asked previously about things that people can do and so, you know, you can just begin. I love asking myself curious questions and that's a great place.

If you have chronic pain, just begin asking yourself, you know, when did this start? How does it affect my life? How is it impacting my sleep in my choosing different foods that may cause inflammation because of the pain?

You know, we eat foods as, you know, because it does help satiate pain temporarily. But on the backside, sugar, fat, salt, processed food may cause inflammation, which makes your condition worse.

So my eating foods that may be making my condition worse. I love the mirror test, which is also a good opportunity for people to just stand in front of a mirror, just in a pair of shorts and look for imbalances in your body.

Hip or shoulder to high as a shoulder rolled forward, causing an impingement. You have imbalances that you can see from side to side. And those are good clues about what you may need to do in order to start helping your body

to feel better.

But basic things that people can do at home or just simply to begin stretching. Stretching can make such a big difference and something that we don't do very often.

And I love to reclaim time in my life. So if I turn on a movie, I sit on the floor and stretch for 30 minutes if I'm on a phone call, stretch while I'm talking.

So just finding little ways to redeem the time in your life to begin adding more stretching and to begin restoring some postural balance is a very beautiful way to begin helping your body relieve some of the stress and regaining postural balance.

I also love like functional exercises just to begin strengthening the body doesn't cost any money. You can do all of this at home, letting your body be the gym, you know, just simply doing isometric exercises, pushups.

Assessing Pain Through History and Whole-Person Care

And if you have to start with walk push ups or push ups, you can do that. Pulling your shoulder blades back together to strengthen those postural muscles in the back.

They get so tight. We were on computers all day, but just very simple things to begin helping your body to move more, go for walks and just get the body moving.

And that often makes a huge difference as well. And then the two last things I'll mention, as we know, sleep is restorative and so important and we really need to get to bed between ten and 11 and wake up between five or six because there is a respite in our restorative regenerative hormones that occurs between midnight and 3 a.m.

And if we miss that regenerative window of sleep, our body does not recover. And so getting a good night's sleep is really essential for regeneration of the body and giving your body a chance to mitigate some of the damage and reduce inflammation.

And then finally, as everybody is learning here on your summit and I won't go into too much detail, but eating a wholesome, plant based diet is the best way to not only reduce inflammation, but foods like broccoli and kale that cruciferous vegetables activate the stem cells in your bone marrow to be released into your system to begin repairing tissue.

So, you know, three or four servings of cruciferous vegetables every day can add to that regenerative lifestyle that you're building, can help you to alleviate some of that pain.

So besides the broccoli and the kale, are there any other spices or other maybe supplements or anything else that you'd recommend that might be very helpful for inflammation?

As you mentioned, spices are very helpful. There have been so many studies on the ginger and turmeric family and the ways that they can help stimulate the cartilage cells to begin regrowing cartilage and our joint and reduce inflammation throughout the system.

Thousands of studies on those two spices and an easy way that I like to get those in every day is just a cup of tea. So I make a cup of tea every morning with a teaspoon of turmeric powder, a teaspoon of matcha, a little bit of ginger and some cinnamon oat milk and hot water.

And it's a beautiful way to start the day. Yes, definitely. Spices, mushrooms, also help to support the immune system, which is part of the healing cascade as well.

Are there any particular mushrooms. You know, the white variety of mushrooms. I like eating varieties because they all do something different. So yeah, I pick the mushrooms in as often as you possibly can also.

And you mentioned starting like with some stretching. So what are some of your more gentle stretches that you would might for someone? Is a decent mobility, right?

If they're not limited by back or something. But what would be some really good stretches maybe someone could do while they're in a chair, work or other places?

Any thoughts there to help people just get the ball rolling be amazing? I mean, the questions that will get ones like, well, what are the specific strategies?

Or, you know what? So we're sitting we can just even if you're sitting at your desk, will do some simple ones, right? Okay. So I'm just sitting at your desk.

A good one for the side is just up and over to stretch the side and you can even grab the underside of your chair and fall to give yourself some more and the other side you can also just for the neck are you take one arm and grab underneath your chair and then you lean away from that side and stretch through the trapezius, which is a really nice stretch up through those muscles to get some type of stress.

Right. Just taking your arms up and stretch and your shoulders can be so helpful. Their shoulders get so tight up and over and around as you're sitting, just squeezing the shoulder blades back together, pulling them and holding them tight.

15 to 30 seconds strengthens all those muscles and stretches the pecs, which are important. As you said, you can just straighten one leg out and reach down towards your toe, stretch your hamstring.

We can do that on both sides. A good stretch for you. Don't say that. But it's down to good. So much for your hips to get. So just to simply cross your hips and push down on your knee and that stretches all that hip muscle we get.

We're always seated in this position. I also to encourage people when they're sitting to sit Indian style or cross-legged because that opens up the hips.

And we found that in countries where people squat more and sit with cross-legged, they have very low incidence of hip arthritis because they're opening their hips much more frequently.

Perfect. And a good one for if you're working at a desk is just open and push your hand open, which opens the carpal tunnel and prevents the carpal tunnel from getting pinched.

Lifestyle Strategies for Pain Relief

So that's a very simple one. You can go across and you can go up and over. And in that way you can incorporate an amazing stretching program all throughout your day while you're sitting at your desk.

I just did that with you and I feel better because we really don't do a lot of lift over your arm, right? That's right. On our shoulders. Like, I mean as we sit them rolls forward.

Yeah I love to hang from we have a pull up bar in the garage that I love to just hang from. I got some calluses from working on that stuff, but yeah, it's great and it's good strengthening too.

I guess. One quick question before we go for a little break here, is, is there anything else as far as things that maybe someone needs to think outside the box?

Maybe they're you know, I'm in pain medications for many years. There was I think back pain would be a growing thing. That's probably the most doing. The majority of people that you see or at least a lot of people that I saw in primary care with that being in there on pain medications and escalating doses over the years.

And they just you know, there have been total they've done everything, anything else that they should look at. I

mean, there yeah. So we read dietary inflammation.

But how did you when someone even start to crawl out of this massive hole of chronic pain? Because I feel like sometimes they're like, yeah, yeah, that's so simple.

You know, get better sleep. But how can I when I'm always in pain or eat better? Well, I can't even get up and stand to cook a healthy meal like I don't.

Even when someone even begin to start to crawl out, I ask maybe a bigger question then. Yeah. So yeah, it's a big question and I'll start with kind of a simple place to solve those issues.

But you know, if you're having that much pain, you're on chronic pain medications. I would really encourage someone to find a physiotherapist like myself in your area that also practices regenerative medicine because addressing some of the underlying drivers of the pain and treating them can effectively break some of the pain cycle, which then can allow you to start exercising and strengthening some of the muscles that are weak, which will allow you to decrease and and discontinue the pain medications because, you know, the pain medications have a multiplied negative effect in your body, including reducing testosterone and growth hormone, which are essential in the repair process anyway.

So, you know, we have to be able to discontinue those and move forward. I was just thinking I remember I had a patient that was an engineer. And so, you know, as you know, we didn't take care of patients that are engineers that come with lots of graphs and charts because they.

Are very data driven. And it's so great because you learn so much from them. So he brought in a chart. I was working with them to discontinue a pain medication opioid that he was on and so he had charted all of these things, his pain levels, his medications, and he came in and he said, You know what I discovered, Dr.

Stoll? So I discovered that my body was actually create in pain as a craving mechanism for my medication. And he said that I was decreasing my medications, my pain spikes were actually going down.

And when I got off my medication, my pain levels were much better off than on medications because I became aware of that. I saw that many times that it seemed like the body would almost spike pain as a mechanism for triggering the use of an opioid medication.

Do you think that was the body doing or do you feel like the mind was like, Oh, I'm 4 hours out, you think I'm the brain, your expecting pain from the body's like, okay, here's some pain.

It's a mind body. Absolutely. Yeah. I'm reading a book called Mindfulness by Ellen Langer, unless you're familiar with her work, but we're going to get her on the podcast as well.

But it's just fascinating to me the different things that she did with people even feeling younger. They there was one incident where they took someone and put them in a wood for a week.

A group of older gentleman, and put them like 25 years younger in an environment and told them, you have to talk like you were back 25 years ago, act like you were 25 ago.

All the music, the everything, the food, everything was just like it was 25 years ago. And they said by the end of the week their biometrics were different, like the blood pressure is better, blood sugars are better.

They actually looked younger. The two that were walking with canes were no longer ambulate. Canes like, All right, I'm going back to the seventies and as I get older, they called it counterclockwise.

You wrote a book about it? I have yet to read it, but it's on my list. But I think that's so fascinating to me. If we start thinking about, you know, how did we think our way into this dilemma, I don't know.

Mind-Body Healing and Mental Health

That is more and more evidence coming out on the link between our thoughts and emotions and our pain and looking at functional MRI, which measure the activity of the brain and showing that as people begin changing the way they think about themselves and their pain and looking at a future more, hopefully the activity in their brain changes and their pain levels actually go down Okay so we are talking about the mind body experience.

So what I would like to understand, if you see anxiety, depression, the cause of pain, or is it a result of pain or both, or how can we kind of peel back the layers there?

Because I think so many people are treated for depression or anxiety, but maybe it's a cause of something. Where where do you even start? Yeah, it's at both ends. Right.

It's a both at hand. Yes. Certainly somebody that has, you know, a chronic pain from an injury that's just not getting better and they've lost quality of life.

They perhaps feel like they've been disconnected from things they love to do or participating in. Life or relationships can definitely drive depression, but also feeling depressed can be a driver of chronic inflammation in the body and pain.

And so it's it's a both and situation. But again, the solutions are the same for for either as we're talking about. It's you know, it's approaching it from the totality of our bodies and our spirit mind and bodies, looking at the spiritual and psychological and emotional components and working typically through like, as you mentioned, those mindful interventions which have been shown scientifically to not only reduce pain, but change the functional state of our brain, and then addressing the underlying physical conditions that may be contributing to the pain, misalignment of the body, chronically damaged tissue or tissue injuries, laxity of ligaments, which can be a source of pain.

And, you know, then in treating someone as a whole, we really get that complete resolution of pain and a full, functional, fulfilling life rather than just the compartmentalized treatment of pain today, which is inject it, operate on it, live with it and take medications.

That's certainly doesn't solve anything, nor does it give people the opportunity to become whole and through the US. So kind of kind of going with that same idea of treating someone whole.

So an integrative approach is so key. How do you help someone actually decipher, okay, this is a mental health component and where where do you send your patients to get help with that piece of they feel like there's such a stigma around even still mental health in seeking help and even knowing where to go and getting adequate help.

How do you do that with someone with chronic pain? Cause I do know I did interview a doctor, David SPIEGEL, I believe, as his last name. He does Self-hypnosis from Stanford.

See the spiders needle this needle. But he had some interesting research regarding self-hypnosis in helping decrease chronic pain. But how does someone even begin to look for someone to help with that piece of it?

Yeah, actually, you know, that's it's a great question. And there are just been gaps in our medical system finding people that can help in that way. You know, locally, I have some resources here in our clinic where that we work with people that can come alongside and assist people in dealing freedom.

But, you know, going into the medical system, just to find that answer is difficult because the medical model, again, is so reductionistic. It is the diagnosis of depression, anxiety and meditation, but not assisting people in gaining freedom.

And so, you know what? I can maybe send you a few resources or links for people that, you know, they can utilize a couple of great books that can help walk people through the process of mindfully addressing some of their own pain symptoms. Yeah.

Which I think is maybe, you know, the best way to start first. But absolutely, yeah. It's just not easy. You know, it's. No, it's just it's a very complex and difficult task because everyone's so different and yeah, it's amazing.

Final question, do you ever recommend meditation or something like that where people turn into the pain and start investigating and that kind of in a mindful approach?

Yeah, I think mindfulness is always a good way to approach it. You know, mindfulness really is just looking at yourself through a non-judgmental lens, just as an observer to ask curious questions and those curious questions help us dig a little bit deeper down into the subconscious to discover some of the roots that live underneath the surface of our daily life, that are part of our operating system, that we don't know where they're discovering some of those roots and bringing them back up to the surface.

We can consciously work through some of the challenges, the stressors, the unresolved relational issues or emotional issues that are hindering, healing, or insight in pain.

So, yes, I certainly do always help. I want to help people step into that because in every way it's helpful.

Resources, Projects, and Closing Remarks

You know, mindfulness is always helpful, gives us more control in our lives, gives us an opportunity through non-judgmental lens to just curious explore why we do what we do and ask those questions and retain freedom, you know, through the process.

Could you share also where people want to connect with you or other things like the Plantrician Project? Anything there that you'd like to share with our audience?

Just to just show all the breadth of work that you've done, depth and breadth in our space. Absolutely. So couple of places you can connect with me. We have a not for profit educate healthcare providers, students around the world about the power of hopefully Plant-based Nutrition.

Food as Medicine and food is really more than medicine and it connects to every aspect of our life. That's plantricianproject.org, and we have a number of resources that we've created for health care professionals and students, including an amazing journal, the International Journal of Disease Reversal and Prevention that you, Laurie, helped us kick off.

And I was just thinking the other day about how you and I started and we had no idea. I haven't started journal with no idea. Lots of sticky notes on my wall.

Thanks to you. The Journal is living and has 30,000 subscribers and we've all gotten big. Yes, it has. Thank you. As that's your gift to so many people.

That's ijdrp.org, International Journal of Disease Reversal and Prevention dot org We have a forum for students and faculty members interest in university that is free and has courses that are being offered every month and really neat forces too that are not just food as medicine.

We're talking about three indication and using nonviolent communication communicate more effectively with patients and others connection of the intersection of food and agriculture and climate.

And so it's a really dynamic, fun platform that we continue in the grow that's Plantrician University, free for all students and faculty around the world and conferences.

You'll find that we do every year, which is a beautiful opportunity for us to get together as a community and learn from each other and connect. You can also find more information about me here.

This is MaxWell Clinic in Nashville, Tennessee, and that's where I practice some do some regenerative,

musculoskeletal medicine to assist people in overcoming their pain and healing tissue using a variety of regenerative injections and holistic integrative care to give people their lives back as well.

And that's called MaxWell Clinic. MaxWell like Maximum Wellness. MaxWell Clinic. That's right. MaxWell Clinic in Nashville. In Nashville, that's right. It's okay. Perfect.

A little. Put that stuff there as well. That's fantastic. Well, thank you, Dr. Stoll, for sharing your information. It's just always delightful to talk to you.

And I really appreciate your time today. Thank you, Laurie. It is so great to be with you. I wish you all the best. Thank you. Thank you.