Introduction to Dr. Scott Stoll

All right, everybody, welcome back. We got a really this is really an important episode. Not only the person that I get a chance to chat with who's on the other side of the world right now and made time for this.

But the topic is great. This is Dr. Scott Stoll. Many of you already recognize that smiling face, that great representative for the health community. Dr. Stoll happens to be in Abu Dhabi today working on a new project for health, and he figured out the time change over.

So appreciative. He's an international leader in lifestyle medicine and whole food plant based nutrition. So he's going to have a lot to say. But really where we met was because of his work co-founding the Plantrician Project, which we'll talk about a little bit later, and an annual conference, international plant based nutrition health care conference, I think the best annual conference to go to and learn and speakers.

The International Journal of Disease Reversal and Prevention, amazing. I won't even go on with all of it. For 16 years, he's served as chairman of the Department of Physical Medicine and Rehab at Coordinated Health.

So he's a medical doctor specializing and we call it in the field. PM&R, But physical medicine and rehab, we're talking about rehabbing your heart, but he can rehab pretty much any part of your body.

His work with Whole Foods, I mentioned the Plantrician Project. He's done immersions in Florida for a week called Total Health Immersions. He's an author. He's been in Dr.

Oz. I mean, there's just nothing but great things to say. You're still in Franklin, Tennessee? Yes, sir. Living in Franklin, Tennessee. I didn't know that I.

I didn't know that was your home roots. Franklin, Tennessee. And he was finally a member of the 1994 Olympic bobsled team. So he's an athlete, is an author.

There's just so much good to say.

Back Pain and Atherosclerosis Connection

So thank you, Dr. Stoll. Oh Thank you. And it's really an honor to be with you. So we're talking. Thank you. That's kind of you. We're talking reversing heart disease naturally.

And I always tell people, you can't reverse something if you don't know you have it. And the problem with heart disease is a whole lot of people, maybe 40 to 50% of middle age adults are walking around and don't know they have atherosclerosis, they feel good or they got some other complaints they would never attribute to atherosclerosis amusing the fancy words, of course, blockages, cholesterol deposits in their arteries.

And I don't think anybody in the audience would connect the positive ability that low back pain, something you've dealt with, I'm sure, thousands of times as a physical medicine, a rehab doctor might be a clue, might get you to me.

You Dr. Stoll might get patients to me because you know and most people don't I've heard you lecture on this. I just pulled up just for the fun of it.

A brand new article with just published. And this is, you know, not the world's best science, but it's what you get sometimes association between high cholesterol and lumbar degenerative back disease, a medicare survey.

The bottom line is people with high cholesterol had a 34% higher chance of complaining of serious, low back pain. Cholesterol, low back pain. Okay, I'm done talking.

Fill us in. What a really educated audience should know about this potential connection. Yeah, thank you. It's very interesting. And, you know, just for the audience, you know, I'd spent most of my entire career during sports inspired, so I have seen tens of thousands of people back then.

And what's interesting, when you see people back then, they come in, you know, the typical workup often involves either an X-ray or an MRI. And it's very common in the impression from a radiologist to see degenerative disc disease and on the pictures, either an X-ray or an MRI, you see, you know, a normal disc would be a nice, plump disc And you see on the x ray this kind of emaciated little disc between the two bones.

And the assumption in medicine. Right. Is that this just happens as you get older. Same thing with like heart disease and other diseases. These are the diseases of aging that just happen to us and it's inevitable part of the consequences of aging.

But what's interesting is that, you know, like, you know, you see people that come in that are in their seventies or eighties and you get X-rays and MRIs and they have relatively normal discs So then you have to ask the question, well, is it really aging or is it something else?

And for you all that's, you know, that are watching, it's something else. And, you know, one of the just to take one step back in medicine today and I'm sure as we've talked about Dr. Kahn we have an idea called reductionism and compartmentalization where we have broken the body down and diseases into small parts and makes it easier to study the disease and to develop treatments for it.

But we forget as doctors that everything is connected in the entire human body. There's not one thing that's not connected to something else. And so one of the things that is rarely thought about in back pain is the connection of the health of your arteries and the health of that disc, because the disc really does not have a very good blood supply.

You know, the back part of the disc has a very poor blood supply. Blood supply actually comes from spinal arteries that originate off of the aorta. So these little tiny arteries kind of pierce back towards the spine.

Then there's a small arteries that wrap themselves around that disc and they supply blood flow to the disc. And as your audience knows, if they've heard this some amazing lectures on the importance of healthy blood vessels.

You know, the health of those little blood vessels are critical because they not only bring oxygen and take away carbon dioxide to those disks, but they bring all of the nutrition that's necessary to maintain the integrity of that disc You know, that disc that is bearing the weight every single day as we sit and lift that disc is designed to be spongy, filled with water and healthy and vibrant.

So as we're bending and moving, the disc is absorbing energy and rebounding. But if that disc becomes emaciated, if it becomes dehydrated, if it's not getting the nutrients and the blood flow, then the disc begins to slowly break down.

And as the back part of that disc which does not have good blood supply, begins to break down, it can start bulging and you'll get small tears in the outer part of the back part of that disc They're called radial tethers and the center of the disc which is like a you know, we're not supposed to eat this, right?

Your jelly donut. So the center of disc is like the jelly. The outside of the donut is the back part of the disc You re-tear in that back part of the disc and the jelly leaks out and begins impinging on the nerves, causing this back pain and and this congenital nerve pinched nerves from the back.

Wow. So your discs, you know, and again, I order a lot of heart calcium C. T. scans looking for silent atherosclerosis. That's a topic we're going to talk about a number of other segments on this summit.

And a good radiologist gives me a whole report. So I have a lot of people between 40 and 50 going for a heart checked up and many over 50. But I'm amazed how many 40 to 50.

The radiologist mentions degenerative joint disease already in the thoracic spine because that's the portion you're most likely to see. You know, very little neck and none of the lumbar area.

So it's common so that blood flow issue could be a problem. I mean, how strong is you know, we talk about associations. These are tough statistical terms and causation.

Do you feel confident enough to say there could be a causation, smoking, diabetes, high cholesterol, high blood pressure, genetic factors could cause degenerative joint disease and manifest is low back pain.

Before you're in my emergency room. Yeah, absolutely. And you know, there's back pain is multifactorial, just like everything else in the body. You can, you know, have poor posture or you can be, you know, have a slippage in the back.

There's other things that can cause it. But when we look at some of the cadaver studies that look at those arteries of the spinal arteries going to the disc they are loaded with atherosclerosis.

Lifestyle Medicine and Case Example

And we know from, you know, population studies in heart disease that she said earlier, 40 to 50% of the population will have severe heart disease. And you know, potentially have a heart attack and die from heart attack.

And so, you know, a large percent of the population then equally has atherosclerosis of the spinal arteries that are feeding that disc. And we can only imagine, you know, if you are supposed to have you know, there are actually very small arteries that are bringing blood supply to that disc that is that is bearing the weight of our body daily.

If those tiny little arteries are occluded to the same degree that we see in the heart where people are having heart attacks, the disc is essentially having a disc attack.

Looks like a heart attack. It's not getting enough blood supply. And then on the day to day, you know, if somebody is athletic or working or a truck driver and they're sitting in that disc is bearing weight, not getting enough blood supply, it's inevitable that over time it will break down and and contribute to significant back pain.

So there's a very strong correlation, especially based on the kind of evidence coming from autopsy studies on back then. Yeah. And I just was playing around for a minute.

I am sadly a multi-tasker, so I can listen to you and look around. But if this hypothesis is true, we are ready. I gave a shout out a very recent article about high cholesterol and low back pain being related, good smoking being related to low back pain.

I pulled up a 2016 article that found exactly that. And, you know, you'd have to grade the hypothesis that we're talking about smoking, atherosclerosis, spinal disc degeneration and low back pain.

And sure enough, I just quickly, without any real preparation by an article between diabetes and low back pain. And of course, the reality is, as you said, we're talking about the whole patient isolating out one disease condition and there's so many different factors that drive atherosclerosis.

So autopsy studies will show it. Now, we're not doing disc angiography. There's no disc stenting, there's no disc bypass, correct? That is correct. Yes.

We're doing disc replacements. That's one of the things that we do. Now, you're a lifestyle medicine expert. And since you view the body as a as a system, you're approaching, you know, cardiovascular disease is part of it.

Of course, it's a huge, important portion. Have you? Well, are you the Dean Ornish and the Caldwell associate of Low Back Pain? Can we institute the lifestyle program and actually share a case study or two or maybe more than that, that people actually might feel better?

Yeah, absolutely. Yes. I mean, that's been so much of my career and that's really where I kind of learned about lifestyle medicine was applying nutrition and lifestyle medicine to my patient population in the musculoskeletal arena.

I just wanted one quick step back and just highlight the fact that you were mentioning that, you know, when we looked at the at the kind of genesis or the epicenter of the relationship between atherosclerosis, smoking, diabetes and degenerative diseases, as your audience is now learned from, you know, all of the amazing lectures that you've done, it's the endothelium that's being injured that's really the epicenter of all of these contributing factors.

We know that, you know, sugar injures the endothelium, nicotine injures the endothelium, animal products injure the endothelium, stressed with elevated cortisol levels, and adrenaline injures the endothelium.

You know, toxins from food injure the endothelium. And so that's why we can begin to see all of these broad associations from, you know, sugar in the diet to diabetes with elevated blood sugar to tobacco to unhealthy diet, obesity, stress, all contributing to this, you know, strong association of degenerative diseases coming from injury to the spinal arteries that are supplying that disc.

You know, it's it's really the health of the endothelium that leads to a health disc. And as your audience is learning, the health of the endothelium is the life cell intervention, which is not only good for the disc, but it's good for the joints in the knees.

It's hard. It's good for the brain, it's good for the entire body. Healthy, whole food, plant based diet, stress reduction, exercise, and a really good night's sleep prepares the prepares the health of that disc.

And I can share with you many cases of of people that, you know, were able to resolve their back pain, the disc genic back pain through a lifestyle intervention that was multifactorial, you know, including stretching and strengthening.

But the real power of that is the anti-inflammatory component of the diet potently reduces inflammation and then increases the health of the psyllium, resulting in vasodilation that increased production of nitric oxide.

So, so I had a young man that actually came to see me with his mother. He was 18 with back pain, which is really quite a terrible thing to have, 18 with severe back pain.

And somebody along the way started him on Vicodin, which is an opioid medication which should never have been started, an 18 year old. So it chronic back pain taking Vytorin.

His mother had rheumatoid arthritis and was in severe pain. And, you know, the psychosocial part of this case really also made it very difficult because she was going through a very challenging divorce, was living in a camper, had very few financial resources and not very good health insurance.

And so she couldn't really afford to take medications. They didn't know how to manage this. And so I shared with them the hope of a lifestyle medicine intervention.

You know, full food plant based diet will dramatically reduce inflammation for you as someone struggling with rheumatoid arthritis and for your son who has this kind of physical, unexpected, it will increase blood supply to your joints.

It will increase blood supply to his desk. I really believe that in the next 4 to 6 weeks through the implementation of this lifestyle intervention, we can get both of you off your medications.

But one of the challenges was that she couldn't afford to go out and buy a lot of fruits and vegetables. But what I love is that when somebody sees a solution and believes it's for them, there are no barriers.

They will find a way to make it happen. And so she really believed that this was the solution for she and her son. She did not want to take medications.

She did not want her son to be on Vicodin for the rest of his life. And so, you know, that motivation inside said, this is what I need to do. I've got to find a way.

And so wouldn't you know, it showed that they went out and they figured out that the sick one of these nice supermarkets in town threw away their produce at 2:00 in the morning.

So they would wait by the dumpster. They would dumpster dove and they would show me the pictures of the produce they pulled out of the dumpster. And it was beautiful, beautiful, organic produce.

And so they started making the meals and shared recipes with them. And I saw her back in about six weeks and all of her joint inflammation and sin avitus was completely gone and her son's back pain had resolved simply through dietary intervention.

We didn't do any physical therapy. We didn't she didn't have any other interventions. It was just through diet, taper, tapering off of his Vicodin. She did not require any medications for her rheumatoid arthritis.

They gained vibrancy and strength, and because they felt well enough, they were able to deal with some of the other psychosocial issues in their family.

And it's just a powerful example, I think on a number of levels of one, what a diet can do when it's diet alone and reducing inflammation, treating back pain and other musculoskeletal conditions.

But know when we are passionate and we believe that we found a solution, that there is always a way, there's always a way around barriers, there's always a way to, you know, identify and find the resources that we need to to bring health into our lives.

As well as a compelling case history. And also listeners don't need to go to the resort river resort to dumpster diving.

Plantrician Project and Educational Resources

But like you said, when you want to get healthy, you get desperate and you do what you got to do while you're giving a class to some trainees in poor minority university and you're talking on low back pain, are you going to put it in the slide or two and encourage them to work that patient up for atherosclerotic risks, or at least get that patient referred to somebody useful or experience that atherosclerotic risk factors?

Yeah, absolutely. You know, it's like erectile dysfunction, right? That's kind of they always say a canary in the coal mine for heart disease. And the same can be said of degenerative diseases that you see, you know, extensive degenerative diseases we can assume, based even on population statistics, that they have atherosclerotic heart disease and should be seen for an evaluation.

You know, it's a value of valuable intervention. You won't die from degenerative disease, but you certainly could die from heart disease. And you don't want to miss that one.

So it is a great opportunity to educate them on that relationship and get a good evaluation. Yeah, as you know, such a powerful teaching point because I mean, what do you think the number would be if we just took a random sample of the public age 50 to 70 and asked, do you have significant low back pain issues in your life?

I don't know the answer. So what do you think the number would be? It's more than one person. Yeah, yeah. No, I

think it's at least half of the population.

Yeah. That's have. It. At least half the population has silent atherosclerosis. The great new data out of Spain on that, even starting at age 40, you'll find it in about 40 to 45% of asymptomatic adults.

So I'm unaware and I was playing around a little because it's such an important, easy study. You know, we looked at 1000 people that had coordinated great calcium scoring, the simple CT scan, there's more advanced C. T scans, but that's a simple one.

And we did a questionnaire on low back pain and we identified the following findings. I don't think that's been done yet. I mean, after what you've just said, I would encourage listeners who have low back pain there in are in that atherosclerotic age range.

I, I wouldn't order up coronary calcium CT scan on the 18 year old you're talking about, although it's so inexpensive, they probably could actually afford it, but it's just not the right test.

At that age, an ultrasound of the carotid might be an alternative like they've done in some research projects on younger people. But I think your organization plan Tricia Project, glad to do that.

I get that mobile CT scanner, the next international meeting and do a back pain survey and let's do that. But somebody about that. Would be fine. So let's do it.

I would love it. Yeah, I could actually arrange that. There are mobile CT scanners and maybe we can get a little grant from good old John Mackey or something of support for.

Like, a fun study. I'd love it. We'd have to then pull it up to the Carnivore conference and come back. Later. Of atherosclerosis and the plan this year.

Atherosclerosis in general public. All right. So we have learned there are many causes of low back pain and inflammatory arthritic conditions. But we're learning for many of us for the first time that put atherosclerosis on the list of considerations.

And we're talking to the doctors and therapists and I have patients and on 40 physical therapy clinics, I got to go ring them up and say, you know, you ought to be training your therapists to at least bring up the topic and get that person back with their primary care specialist and get screened.

And we have many other talks. And how do you screen for asymptomatic vascular disease during the summit? So I won't pick Dr. Stoll's brain when he's on the other side of the world today on that topic.

But you are the co-founder of a significa and important organization. The Plan Trish and Project Plan. Trish in L. A. Are I CIA and Project Dawg you rolled out fairly recently a beautiful new logo and I couldn't believe how many little boxes.

There are different components. Take us back. How long ago was it that you said we need an organization to bring together science on plant based nutrition?

Yeah. So in 2012, I was having dinner with my partner in the Plantation Project, Tom Durham, and I was just commenting on how long it took me as a physician to really understand the science and then actually learn how to apply it in my practice.

And I said at the time at dinner, I said, You know, we really should start a conference to educate health care providers about the power of plant based nutrition to prevent, suspend and reverse disease and to talk so great.

As you know, he said, sure, let's do it. And I have great ideas. Tom's great at logistics. And so that was two parts of a team. And then Susan Bennett, who's now the executive director at ACR, American Culture Lifestyle Medicine,

joined us and brought the marketing piece, which was really essential.

So myself and Tom Dunham and Susan Better Guest launched our first conference in 2013 in Naples, Florida, the International Plant-Based Nutrition Health Care Conference.

It was successful. We re broke even, and we were able to wrap the conference inside of a not for profit called the Plan Attrition Project, which was really designed not just to provide a conference environment, but also tools, resources, education for all health care providers by the power plant based nutrition.

Because, as you know, in medical school, 40% of medical school students receive no nutritional education. The other 60% receive on average about 19 hours.

And none of it has to do with the nutrition that your teaching, your audience actually knows more than medical school students and residents about nutrition and the link between heart disease and other diseases.

So we really wanted to be an organization that would provide resources and tools and educational opportunity and importantly, bring people together in community because community is where transformation occurs.

So on top of the conference, we launched a journal called the International Journal of Disease Reversal and Prevention, which is a free journal. We wanted to remove all barriers to access, so there's no subscription fee for the journal.

IGAD OP dot org. You can sign up, receive the journal and follow the science. We also wanted to remove the barrier that's often present in publishing.

In science. For most journals, you have to pay to have your, as you know, your articles reviewed. And in some cases, like nature, you know, only 10% of the articles get past that first step and it's thousands of dollars.

So we really wanted to remove all those barriers. We made it free. We've created a number of free resources, downloadable Quickstart guides in five different languages that people can download.

A pediatric quick start guide Transforming Health Care. Quick Start Guide We have our Quick Start guide coming out on gardening, which I'm really excited about.

And then this last year we launched one of our really exciting initiatives called Planet Christian University, recognizing again that one of the roots of the problem is education at the medical school, student and college level.

So we created again a free platform learning management system for every health care professional student in the world, from health coach to physician and everything in between that any health care professional student can sign up for free and go through an educational and ongoing educational process to learn about the linkage between plant based nutrition and disease reversal.

So every month we're adding new courses from amazing clinicians around the world. We've uploaded all of our lectures from our ten years of conferences, and we're going to also create a platform starting next year to begin training the next generation of leaders and mentoring platform, because as I see, you know, so many of the leaders, the amazing people, the shoulders that we're standing on today like SC and Colin Campbell and John McDougall and Joel Fuhrman, Dr.

Joel Kahn and Dr. Scott Stoll. We're over 50 now and so we need to really begin working on cultivating that next generation that I believe will be the generation that really ushers in the age of lifestyle medicine.

So I'm really excited about that platform. And, you know, so anybody that's interested if faculty or health care, professional student, if you know a student in your life from college through medical school and residency, just send them to plantricianuniversity.org or plantricianproject.org and they can sign up today and they can start their learning journey. Now That's great.

I'm on your Website and you know, just your quick start plant based nutrition guides, which are free downloads, everybody, I mean, rarely do you see free stuff and you can get it in Spanish.

You can get in Chinese, Arabic, Japanese. And I'm sure that It'll expand. But the one that I know will be a hot I don't want to call a seller because they're free.

But you have one for children, a pediatric plant-based nutrition quick start guide, which I think is a common, common topic that comes up. And there isn't necessarily a plant based pediatrician in every community.

So at least you can get a first step through all this great work you're doing and then go deeper by searching all these Plantrician University lectures.

And what about one more? Just throw into the culinary RX? What can people learn that are interested in improving their health through that aspect of plantrician project?

That's right. You know, one of the things that we began to see and you know this well, that when you recommend patients start cooking plant based meals, they say things like, well, how do I make oatmeal?

Or How do I steamed broccoli? And so, you know, we've we've lost this culinary wisdom that was usually passed on general generation to generation. Now that we live in a fast food atmosphere.

And so we designed a kind of a culinary education and plant based education combination and what's called the culinary course. We worked with a company called Ruby, which is one of it's the largest online cooking school.

They teach chefs all over the world, Michelin star chefs, how to prepare plant based food. And so we partnered with them to put together a beautiful program called the Culinary RX We teach basic knife skills, water sautéing, how to cook, you know, broccoli and other vegetables and in combination, some wonderful lectures from many physicians in this space.

And so it's a delightful 12 week educational course.

Closing Remarks

It's very doable. But is a great foundation for anyone that's wanting to understand some of the science, but also really basic culinary education that chefs would learn anywhere at any of these hotels and restaurants around the country.

So everybody go to plantricianproject.org a really beautiful website, very easy to search around, spend some time if people want to find you. Do you still have a brick and mortar office or you're at a higher level.

Than I do? You know, you know, it's hard, like us doctors, we like seeing patients, right. So I still do see some patients in Nashville, Tennessee, at the Maxwell Clinic.

I'm delighted to see people there a couple of days a week. Max. I actually have a license in Tennessee, so quite a few telemedicine patients and it's. Great.

Franklin and other communities right near you, so we'll try and get down there soon. Well, thank you so much for taking your time. I hope you get a good night's sleep.

You've really taught us a lot of interesting, innovative canary in the coal mine. That's, you know, it's it's not always you something brand new you've never heard before in a interview like this.

So thanks so much and good travels.