Introduction to Dr. Scott Stoll

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 Doctor Scott Stoll. Many of you already recognize that smiling face that great representative for the health community, Doctor Stoll, happens to be in Abu Dhabi today working on a new project for health.

And, he figured out the time change and was so appreciative. He's an international leader and 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 Planet Christian 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 served as chairman of the Department of Physical Medicine and Rehab. It coordinated out. So he's a medical doctor specializing and we call it in the field and but physical medicine and rehab.

We're talking about rehabbing your heart. But he can rehab pretty much any part of your body. He's worked with Whole Foods I mentioned in playing Christian Project.

He's done immersions in Florida for a week called Total Health Immersion. He's an author. He's been in Doctor Oz. I mean, there's 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 so. Thank you, Doctor Stoll. Gerald, 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.

I mean, 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. I'm using the fancy words, of course, blockages. Cholesterol deposits in their arteries.

Back Pain and Atherosclerosis Connection

And I don't think anybody in the audience would connect the possibility 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, doctor still might get patients to me because, you know, and most people don't. I've heard you electrons. 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 sometime, 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've spent most of my entire career during sports, and, and so I have seen tens of thousands of people with back pain.

And what's interesting, when you see people are back and 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 this disease.

And on the pictures, either an X-ray or an MRI. You see, you know that 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 70s or 80s and you get x rays, an MRI, 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 you've talked about that con, we have a 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 water. So these little tiny arteries kind of pierce back towards the spine.

And then there's small arteries that wrap themselves around that disc. And they supply blood flow to the disc. And as your audience knows, after they've heard this, this amazing lectures on them, 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 tests, but they bring all of the nutrition that's necessary to maintain the integrity of that disc.

You know, that disc that is bearing 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 breakdown.

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 tears. And the center of the disc, which is like a, you know, we're not supposed to eat these, right, Joel? Jelly donut. So the center of the disc is like the jelly.

The outside of the donut is the back part of the disc. You get a tear in that back part of the disc, and the jelly leaks out and begins impinging on the nerves, causing this back pain.

And then and disc genic nerve pinched nerves in the back. Wow. So your discs, you know and again I order a lot of heart calcium CT 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 checkup 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 me.

You know very little of the 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 as low back pain.

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

You can be, you know, have a slippage in the back. There's other things that you're causing. 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.

And we know from, you know, population studies and heart disease that this you said earlier, 40 to 50% of the population will have severe heart disease.

And, 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, they're they're actually very small arteries, that are bringing blood supply to that disc that is, that is bearing the weight of our body and 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's athletic or working or a truck driver and they're sitting and 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 Eric or the evidence coming from autopsy studies on back then. Yeah. And I just was playing around for a minute.

I am, sadly a multitasker. So I can listen to you and look around. But if this hypothesis is true, we are ready. I give a shout out a very recent article about high cholesterol and low back pain being related.

Quit smoking. Being related to low back pain. I pulled up a 2016 article that found exactly that, and you know, you'd have to create 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 for an article between diabetes and low back pain. And of course, the reality is, as you said, we're talking about the whole patient.

I'm 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.

Lifestyle Medicine Case Study

Have you, well, are you the Dean Ornish and the Caldwell associate dean of low back pain? Can we institute a lifestyle program and actually, share a case study or two or maybe more than that, that people actually might feel better?

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

I just want to take one quick step back and just highlight the fact that you were mentioning, that, you know, when we look at the at the kind of Genesis or the epicenter of the relationship between atherosclerosis, smoking, diabetes and degenerative, this disease, as your audience is, now learned from, you know, all of the amazing lectures that you've done, it's the end of the ilium that's been 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, stress with elevated cortisol levels and adrenaline injures the endothelium.

You know, toxins from food injure the endothelium. And so that's why we can, you know, 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 those 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 a lifestyle 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 diets, 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, people that, you know, we're able to, resolve their back pain, their disc genic back pain through a lifestyle, intervention that was multifactorial, you know, including stretching and strengthening.

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

So, I had a young man that actually came to see me with his mother. He was 18 with back pain, which is really, you know, quite a terrible thing to have be 18 with severe back pain and somebody along the way, joined, started him on Vikatan, which is an opioid medication which should never have been started, an 18 year old.

So he'd chronic back pain, taking 5 to 10. 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, to manage this. And so I shared with them the hope of a lifestyle medicine intervention.

Said, you know, food plant based diet will dramatically reduce inflammation for you. Is someone struggling with rheumatoid arthritis? And for your son who has this, you know, kind of physical genic back, but, it will increase blood supply to your joints and will increase blood supply to his disc.

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 of 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 sure that they went out and they figured out that the 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 dive, 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 antivirus 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, you know, any other, interventions. It was just through diet will taper him off of his Vicodin.

She did not require any medications for her room to get 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 so 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 to 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 life.

Well, as a compelling case history. And, also, the listeners don't need to go to the resort to resort to dumpster diving, but, like you said, when you want to get healthy, you get desperate and you do what you gotta do.

What you're giving a class to is, trainees in minority university, and you're talking on low back pain. Are you going to put 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, experience at atherosclerotic risk factors.

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

You know that, 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.

Plant-Based Project and Educational Resources

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 answers. What do you think the number would be? It's more than 1%. Yeah, yeah. No, I think it's at least half of the population. Yeah. Has had the least half.

The population is silent. Atherosclerosis is 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 a thousand people that had great calcium scoring the simple CT scan.

There's more advanced scans, but that's a simple one. And we did a questionnaire on low back pain. And we identified, you know, 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 and are in that atherosclerotic age range.

I, I wouldn't order a coordinated calcium CT scan on the 18 year olds. You're talking about. Although it's so inexpensive, they probably could actually afford it, but I it's just not the right test that age.

An ultrasound of the carotid might be an old term, like they've done in some research projects on younger people, but, I think, your organization plan, Tricia project. Where to do that?

I get a mobile CT scanner the next international meeting and do a back pain survey, and that's, let's do that. But somebody that 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 McKay or something.

Supporter of. I felt like a fun study. I'd love it. We'd have to then pull it up to the carnivore conference and, that's all part of atherosclerosis and the Cedars.

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 that own 40 physical therapy clinics. I gotta 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 on how do you screen for asymptomatic, you know, vascular disease during the summit. So I won't pick, Doctor Stahl's brain, when he's on the other side of the world today on that topic.

blew us away with, the conversation between back pain risk factors and atherosclerosis of the discs. But you are the co-founder of a significant and important organization.

The plan attrition project plan, attrition plan. Try CIA and project org. You've rolled out fairly recently. Beautiful new logo. And I couldn't believe how many little, boxes there are.

The different components take us back. How long ago was it that you said we need an organization to bring together science and plant based nutrition? Yeah.

So in 2012, I was having dinner with my partner in the attrition project, Tom Durham, and I was just commenting on how long it took me as a physician to really, you know, 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 suspended reverse disease.

And a time 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 Bennigan's, who's now the executive director at ACL, an American College of lifestyle medicine, joined us and brought the marketing piece, which was really essential.

So myself, Tom, Tom Dunham and Susan Bennett just launched our first conference in 2013. And Naples, Florida international plant based nutrition healthcare conference.

It was successful. We really, 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 about the power plant based nutrition, because as you know, in medical school, 40% of 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 you're teaching. Your audience actually knows more than medical school students, and residents about nutrition and the link between heart disease and other diseases.

And so we really wanted to create an organization that would provide resources and tools and educational opportunities 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 IJA drp.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 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 a 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 Plantation 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, a platform starting next year to begin training the next generation of leaders, a 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 I and Colin Campbell and John McDougall and Jill Furman and Doctor Joel Khan and Doctor 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 Plantation University, dot com or Plantation project.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 it 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 plant Christian University lectures.

And what about, one more? Just throw edge of the culinary rocks. What can people learn that are interested in improving their health through that aspect of plant 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 to, you know, start cooking plant based meals, they say things like, well, how do I make oatmeal?

Or how do I steam broccoli? And so, you know, we've we've lost this culinary, wisdom that was usually passed on generation to generation.

Clinical Practice and Closing Remarks

Now that we live in a fast food, atmosphere and so we designed a kind of, culinary education and plant based education combination and, what's called the culinary.

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 starred chefs how to prepare plant based food.

And so we partnered with them to put together a beautiful, program called the culinary. They teach basic knife skills, water sorting, 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 it's a delightful, 12 week educational course. It's very doable. But it's a great foundation for anyone that's wanting to understand some of the science, but also really the basic, culinary education that chefs would learn.

Any at any of these, hotels or restaurants around the country. So everybody go to a plantation project.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? And 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, I'm delighted to see people

there a couple days a week next.

Excellent. I actually have, a license in Tennessee, so I have quite a few telemedicine patients, and. Oh, that's great. Franklin and other communities right near.

Yeah. So, I'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 hear something brand new you've never heard before in a, interview like this. So thanks so much and good travels.

All right. Thank you. Joel.