What If Transforming Your Brain Health Was The Key To Preventing Strokes? Transcript

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Introduction and Guest Background

Hello everyone. Welcome back to another session of the Heart Attack and Stroke Prevention Summit, where we bring in the best guests to help you prevent, having a heart attack the first time or a second time or even a heart attack or stroke, you know, recovery.

Which is why, of course, I've got Doctor Ken, Charlene here, and Doctor Ken. Charlene, if you don't know him, you're going to really enjoy his information.

He's a board certified neurologist. So when it comes to strokes and stroke recovery, this is the guy we're going to talk to. But he's and he's been in practice since 1998.

He completed his medical education at Emory University and did postgraduate training, at Emory Affiliated Hospitals, University of Virginia, and then at Vanderbilt University.

And he also has a master's in public health. So he's originally from new Jersey, but he is well known in the Missouri area. People travel from all over, and he is married.

I've met his lovely wife, Valerie, and they have three adult, children. And he's also an avid cyclist, runner and triathlete. All the stuff that I love as well, physician of the year multiple times.

And people travel from all over the world to meet up with Doctor Ken Schaal and Doctor Ken. Welcome to the Heart Attack and Stroke prevention summit. Well thank you. Pleased to be here.

All right, well, listen, just so excited to talk to you about this, you know, so many different things here. And, you know, you and I were talking before we got on and talking about my father's history of, progressive super nuclear palsy, a Parkinson's like illness that would take his life at the age of 63.

Torturous, cruel thing. I'm very interested in preventing that and myself and for everybody else. And of course, all of these, mental and, you know, physical disorders.

So again, I'm excited to have you on here. Let's talk about, let's talk about strokes. Let's talk about how do we prevent strokes? Because they are so common, one of the most common causes of morbidity and mortality.

What's going on in the stroke world? You know, I, actually moved to Missouri. Had 25 years ago. I was practicing in in Nashville. I'd finished at Vanderbilt, worked with a neurologist.

For a couple of years. Felt like the opportunity I had in Nashville was a bit of a dead end. I wanted more growth, opportunity, and responded to a recruiter who was looking to bring a stroke expert to Springfield, Missouri.

And so I traveled with my family, put down roots, and became the director of a stroke program at a major metropolitan hospital here in Springfield. I say that because it's interesting that the technology that we have from from a traditional neurology, emergency medicine, internal medicine perspective and what we can actually do when a stroke happens or even to prevent stroke in the traditional methodologies has basically not changed, you know, and all of this time, I think it was about 1998 that a drug called tissue plasminogen activator was approved to treat a patient if they arrived in the emergency room with a clear timeline of onset of symptoms.

And at that point in time, there was about a three hour window in which the drug could be pushed.

Stroke Treatment Limits and Number Needed to Treat

And of course, that's trying to that's like trying to put the fire out when the whole house is burning down on the ground. We're not we're really not any better off today.

I, love early on when I started to learn the principles of functional medicine, I was introduced to a statistic I'm sure you're quite aware of, called the number needed to treat.

For folks not familiar with this breaks down very simple. You know, if you're put on an aspirin, a cholesterol pill, diabetes drug, whatever it is, you know, it's easy to be very complacent and think, well, my doctor put me on this.

So therefore whatever I'm taking it for stroke prevention, heart attack prevention, it won't happen. And I tell my patients, look, if as a little experiment, we went with a clipboard to the local E. R.

and just stood at the door for all the people coming in with acute, coronary ischemia or acute stroke and said, hey, you're on a statin, you're on blood pressure medicine.

I mean, probably 95% of them would already be on those meds, right? So we really have a problem and we go back to this number needed to treat. I just for kicks looked up tissue plasminogen activator.

So this is the clot buster right. You have to know when you're exactly when your symptoms started. And there's a few other hoops to jump through. And ideally there's a three hour window although it's been extended out a bit when you look at these numbers you're not going to be very impressed, especially as as you get beyond the three hour window.

So here and this is the for those interested, the website is the Netcom number needed to treat. So if you think you're going to recover you're going to have an excellent outcome.

Getting this drug. In other words, you waited to the 11th hour. Stroke still happens. You know, you only have a 1 in 10 chance of having a complete recovery.

If you get it in within that three hour window, by the time you get out to six hours, it's a 1 in 50 chance. But what's also interesting is that a fatal intracranial meaning inside the skull bleed within seven days of treatment also occurs at a rate of 1 in 50, and that three to 4.5 hour window.

So, you know, you're practically just as likely to recover as you are to have a fatal bleed in your brain. So, Jack, we have to do a whole lot better than that.

And I'm sure glad that you've decided to put this summit on now. Thank you so much for that. That intro and I love that number needed a treat. I talk about it very often, as you do regarding cholesterol drugs, and that's always the question you want to ask your physician.

Is it what is what is the number needed to treat in order to get benefit that could be based on, you know, cardiac, could be neuro, could be cancer, you know, autoimmune, whatever it may, you know, and we should always ask those kind of questions.

And then you really understand that, you know, like in that scenario, you talked about where one out of 50 got benefit, which means 49 out of 50 didn't get benefits.

And those same people were, of course, at the risk of having, hemorrhagic, you know, conversion, you know, from that and, you know, as it relates to, you know, aspirin, you mentioned aspirin.

It's interesting that, you know, I wrote about this in my 2015 book, but also just the data from, New England Journal of Medicine from, several years ago that just kind of just finally, I believe, put the final nail in the coffin regarding aspirin and primary prevention for cardiac and neurologic events.

Do you see any role for aspirin in those people? Well, let me back up a little bit. I certainly believe in individualized medicine. And what we're talking about now, of course, is and idealized situation.

We'll get into lifestyle, medicine and environmental impacts on the risk of stroke. But in reality, people are people. We are all human beings. And I often say that in my clinic, and I have to approach each person for who they are, where they're coming from.

Diet and lifestyle wise, risk factor wise. Sometimes I might say, look, I know it is your ideal goal to get off of all of this medicine, but you are not at a place right now where we can simply pull the rug out from under your feet.

We're going to have to make some changes, but I have to track that, confirm those changes have taken place, and then we can talk about getting off the drug.

But to your point then, it's been known for a long time that aspirin, of course, does reduce the risk of stroke secondary prevention, but not much depending on the paper.

1,012% 15% number needed to treat very, very high to prevent a second stroke 1 in 79. In terms of death or dependance. Right? I'm looking at the numbers 1 in 140 to prevent recurrent stroke.

You're taking an aspirin a day, which also has a risk of causing bleeding, either in your head or in your body somewhere. Fortunately, that risk is lower than than the likelihood it'll have some positive benefit, but that positive benefit remains rather small.

Yeah, yeah. The The New England Journal of Medicine article, it also talked about actually excess mortality in the aspirin group. Overall mortality was higher in the aspirin group for primary prevention.

And that was that was in people who were aged 70 and over.

Aspirin, Statins, and Metabolic Syndrome

But, I mean, just this, you know, kind of as, as we get skeptical of pharmaceutical company marketing and the bail corporation and aspirin today, it keeps the doctor away.

And he's kind of one out of the three heart attacks. It's just that marketing propaganda is terrific. Talk about statin drugs. We don't have to talk about the benefits thereof.

Although it's interesting in the sparkle trial, which used high dose atorvastatin versus placebo that was published in 2006, what they found is that high dose atorvastatin versus placebo in people who had previous to stroke, actually lower the risk of stroke.

In going forward, also lowered the heart attack risk going forward, but interestingly, not statistically significant. But nonetheless, more people died in the statin group.

Overall, from overall mortality in the sparkle trial. And that's a mega dose statin versus placebo. But what are you seeing as far as, cognitive deficits, the pharmaceutical industry and even the research, in most published papers will say that there's really not much of a, and in fact, that statins can actually reduce the incidence of cognitive disorders.

What, you've seen a gazillion patients, what do you see in clinically? Do you agree with that? Well, it's the the the pure answer is it's hard to tease out because of course the folks on statins often have other things also going on.

And not being a statistician to be able to use some fancy mathematical modeling. I mean, I am aware, for example, that at one point, statins were looked at potentially as disease modifying therapy for even Alzheimer's or Alzheimer's prevention.

Think it really panned out. You and I just got back from a major holistic medicine meeting, and, you know, and just, earlier in the spring, or rather fall, I was at another major meeting and what I'm hearing just over and over and over again to speak to this question about statins.

And in the broader sense, we're really talking about metabolic syndrome. And this is the epidemic that we're that really as a country, maybe westernized nations overall, Europe and other places, you know, are facing obesity, insulin resistance.

Dyslipidemia is an issue. It just doesn't necessarily always have to be treated with a statin. And unless we can embrace this and understand that this disturbance in metabolism that manifests in all of those ways, including, you know, increased abdominal obesity, it's really the gateway to just about every disease we can talk about, you know, and so when folks have that stroke and I, I will say that I practice only outpatient allergy now.

So I'm not the stroke jockey anymore in the hospital. I don't treat people in the hospital after they've had a stroke in a more, Not that that isn't important.

You need a doctor to help you through that critical window. But oftentimes when folks are discharged, their instructions are, go see the neurologist, and they show up at my office, and I will.

What are your goals? What? You know, what would you like me to do? Because I'm not the one to go down the checklist and put you on all these drugs your aspirin, your statin, your blood pressure pill, your metformin, or what have you.

I can help you with lifestyle change. I can, in the more traditional neurology context, help you with spasticity management if that's an issue, get you to a speech therapist.

If you're having language production issues. But it's kind of like, you know, once you cut off a limb, it's probably not going to grow back. There are very, there are definitely documented cases of people having remarkable recovery from even large that we can define this for the audience.

Large vessel stroke. In fact, one of my, early influences before medical school was a poet was our not our nation's, poet laureate, national poet laureate named William Meredith.

Meredith has since passed away, but he was a professor at University of Connecticut. Well, published. He had, moved to Washington, DC, where he served under the president at that time, I think it was, George Herbert Walker Bush.

Might have been Clinton. That was about that time frame, at any rate. Could he actually would have even been before that probably was George Bush. But at any rate, he, he had a, a big, interestingly, he had a big left middle cerebral artery stroke.

What that means, folks, is that this stroke took out a piece of his brain, like slicing in to a I. Right? That sort of V-shaped cut. If you will, and went right through his language area in his brain.

So here was a man who had made his entire career out of language and lost his ability to speak. Fortunately, he had some ability to understand language, and it was my great honor at the time to read his, what pre published what they call galleys at that time.

There are big pieces. A paper is a book that was to become his new and selected works, and it won the Pulitzer Prize. But I actually had to read his poetry to him to proofread those galleys.

Now, I say this because several years later, Bill Meredith got his language back. It wasn't perfect, but you can go to YouTube and find interviews with him talking.

These are exceptions. We have to prevent this from happening in the first place. So how would you start to recover

someone from that? I guess from a, functional neurology, standpoint, starting off with nutrition, because I agree, it's kind of like, you know, there's many cases where somebody has a catastrophic stroke and then ever recover, only declining and then eventually die.

You know, the other, you know, is that, you know, sometimes people take like several months and like, just like over time, they really start to build back, maybe not totally to where they were, but, I guess kind of proving us, critics a little bit wrong in the sense that, yeah, they do start to recover.

So what's kind of like, you know, you see someone, they come in, maybe they've got some, you know, moderate heavy paresis and they've got some speech impediment.

Talk to me through about diet. Well, diet is fundamental and I'm a very foundational functional medicine trained neurologist. Meaning if you come and see me and and sometimes the questions I'm asked immediately is, you know, what supplements should I be on, you know, or I have this cool gadget that I put on my head and it sparkles, lights over my skull, and I'm making fun of that.

But actually, photo by modulation is very interesting. And and as good science behind it. But my point is the what I call the gadgets and gizmos are great, but we have to begin with the foundations, right?

We have to begin. And I even as much as nutrition, will definitely want to talk about that. I kind of go in order and I, I take a lifestyle medicine history, and I talk to me about your sleep because, as you know, the problem of sleep apnea is another epidemic problem that goes hand in hand with the obesity epidemic.

And there's tons of untreated sleep apnea for a variety of reasons, either undiagnosed or people unhappy with their CPAp machine.

Recovery, Diet, and Sleep Apnea

Or maybe they should actually be on BiPAP or some sort of auto servo ventilation and not on CPAp. Hopefully that would be a physician error. But at any rate, you know, sleep apnea, untreated sleep apnea, or undertreated sleep apnea is a major risk factor for heart disease, for stroke.

So we're never going to get past these issues unless we correct sleep. So that is a very high on the list in terms of nutrition. One of the things that I run into quite a bit that I'd like to clarify in on a summit is kind of like my point about what supplements should I take?

Is there an ideal diet? You know, is there one size fits all? And my answer generally is there's not one size fits all. Although there are a few basic principles of certainly foods to avoid processed vegetable oils and things like that that are highly inflammatory.

But what I find in general, having taken a lot of nutritional histories is there is a huge need to immediately address the nutrient density of a person's diet.

I'm not interested in them sort of being in a ketogenic diet. Not that that isn't also a potentially valuable tool, because the problem is, with a ketogenic diet, it would be very easy to accidentally limit nutritional intake.

And until we're topping off the tank and addressing things from a micro nutrient in particular perspective, that's vitamins, minerals and phytonutrients, the nutrients that come from plants, then I'm not interested in them.

You know, pursuing a deep ketosis and pricking their finger, breathing into, you know, a ketone meter because that that's sort of putting the cart before the horse.

All right. I'll put you, right on the spot. Top three foods for stroke. Prevention and recovery. Are they are they different? Give me the top three of each.

Well, I would say from a whole food perspective. Well, I don't necessarily. And I must say, I know there's a very large movement within cardiology, particularly through the Lifestyle Medicine Academy, to be, you know, completely vegan or vegetarian.

I don't personally necessarily promote that, although I would like to see people have a primarily plant based diet. So instead of the big slab of prime rib and a couple twigs of asparagus, let's flip that around.

Let's have a big plate of, varied and colorful vegetables, lots of greens, lots of cruciferous, etc. and then, yes, you should add some protein. I am a big proponent of optimizing omega three levels.

And I would say unless people are eating a lot of fish, although you can, you know, use grass fed beef as a source of omega threes, most people need to be adding a lot more of those fatty fish to their diet, to what we call smash salmon, mackerel, anchovies, sardines, herring.

And most people do need to be supplementing with a high quality omega three because we're just not getting enough. Got it. What, what are your thoughts on, gluten and gluten?

A lot of people talk about, you know, grain brain. Actually, that was Perlmutter, his book, fellow neurologist, you know, to you, grain bran. I love the idea and telling people, and I'm like, you can read the book.

It's a great book. You know, recipes and all the stuff that goes along with it. But the money's in the title, right? Grain bran. Grain destroys your brain is that grain is pro brain.

But it's, you know, grain is is not good for your brain. What are your thoughts on pro models? Assessment of the literature. Yeah. I mean, Dave Perlmutter certainly influenced my career tremendously.

It's very nice gentleman, very bright. Very gracious. And I was when I read that book, it was a turning point for me in my thinking. It has been several years, you know, since I've read it.

But one of the things that I recall most about the book is it pivoted a little bit from gluten into the whole idea that, you know, a bread heavy diet has a huge impact on blood sugar.

It was as much about to me as I recall the book about metabolic syndrome, insulin resistance, blood sugar, comparing white bread, wheat bread, saying, look, the glycemic index is really not all that different.

Don't think you're being healthier if you're eating wheat bread versus white bread. You know, gluten is any you know, I know there probably is some diehard gluten free folks out there, who feel that they one slice of bread or something containing gluten, they're going to keel over.

I don't personally feel quite that way to that extreme, but I will say that, you know, a lot of things that we eat in our American society is really just cultural, culturally based.

Right. I think that bread is fairly void of nutrition. It's not worth the, you know, filling your stomach with something like that when you can be eating a lot of other things.

So and I'm quite aware of the concerns over the modifications of the wheat of the, you know, genetically modified, although there are people who will eat the ancient, you know, breads based on ancient grains or talk about how, you know, bread in Europe is different than bread in the United States, but who needs, you know, do you need bread like I?

I slept in a little rerecording today on January 1st. One of our favorite, foods coming from a local restaurant is this, Thai restaurant where they have a coconut curry, a red curry kind of base, lots of vegetables.

And, we had some leftover in the fridge and, you know, have a little bit of that for breakfast. So, you know, breakfast doesn't need to be two slices of toast with jelly.

A shot of orange juice. Right? I had many years ago took my son to Japan and and we prepped for that visit his. He was very young, and I wanted to him to learn a little Japanese, learn a little bit about the culture.

So when we went there, we were fairly, you know, we were kind of doing a total immersion thing.

Best Foods, Gluten, and Nutrient Density

And, they would say, we'd stay at these Japanese bed and breakfasts they call ryokan and they would say, would you like the American breakfast or the Japanese breakfast?

I don't know if you've ever had Japanese breakfast, but then resemble anything like a couple slices of toast and jam and orange juice. They don't even drink coffee for breakfast.

Right. It's green tea. It's, you know, usually some, dry fish, some pickles, miso soup, you know, very, very different experience. But if we look at the nutrient density, what is that breakfast delivering?

Way, way better. So what is breakfast? I don't know, what do you think breakfast is that kind of thing, right? Yeah, I know, that's all great stuff. And I think that's why the Japanese, on average lived longer than us, despite the fact that, you know, a lot more of them smoke than we do.

I think it is that seafood story. I just I agree with you. I'm such a huge fan of seafood, and I think something that carnivore people get it wrong, is that they tend to be very, animal meat based, you know, and forgetting about the seafood.

And I think that's a major, major mistake. People with the highest levels of omega three consumption at the lowest risk of everything. And you can't get that from the plant world.

We got to get it from the from the seafood. So that's what we do. And I love your comments, too, about sleep. And, you know, it's kind of like, you know, because we all love the diet.

Yeah. You know, debate. Right. Should I go, you know, more plants, more animal based, and everything in between. I like to qualify that and say, make sure it's always organic, so get the chemicals out of the food.

But, yeah. Also, let's instead of arguing about that, let's just stay. Yeah. Let's talk about sleep. Also talk about sunshine. What role does sunshine play in, prevention and recovery?

What do you think? You know, but, you know, you're in Missouri. You came from new Jersey. These aren't necessarily big sunshine areas. How do we get people to incorporate that into their lives?

By the way, one thing I do want to say about gluten is we do routinely put ourselves, our patients on elimination diets, just foundational elimination diets.

And then, you know, inevitably, something will happen. I put that in quotation marks like Thanksgiving and Christmas and New Year's and all that, and I'll see page better, like, oh, I went to this party and they had all this stuff and I ate it, and I'm like, okay, how did you feel?

And I say, terrible, right? So I think the proof is there for folks. It really reinforces when they get on a truly anti-inflammatory diet, they know that is right for them.

Now, you know, sunshine. And of course, we associate sunshine as well with vitamin D, as well. We talk a lot about our mitochondria and things like that.

And I often think that the whole principle that functional medicine is founded on really almost wouldn't even exist if it weren't for the industrial, you know, industrialization of America and Europe and the globally.

Really. Right. Because and I and I always say to to qualify that I, I'm speaking from you in the comfort of my home under artificial light, sitting on a comfy chair.

Right. Using technology that probably puts out a certain amount of electromagnetic radiation or EMF. Right. Okay. I accept that because I like living in modern society, but I think we have to find that happy medium.

You know, I think the time of year that we're in, we're we're in winter days are short. I go to my office in the morning. It's just barely gotten laid outside.

I'm working all day long now. At this time of year, when I leave my office, the sun is already set. I'm going home in the dark. If I'm not careful, I've gotten zero sunshine that day, you know, and then I'm.

I am not a sitter, fortunately. But how many people then go to the office, and then they sit all day in front of their computer. So this is a serious problem.

We have to make time for ourselves. We have to make time to go outside, expose ourselves to the sunlight, move our bodies, connect with others. And I always say social media doesn't count because these are the fundamental things that affect what you and I probably call our systems biology, sometimes called the functional medicine matrix, affecting everything from the immune system to the, you know, digestion, the microbiome, our mitochondria, the vascular system, everything being connected and everything influencing everything.

And when we take these steps to spend time outside, allowing some sunshine to hit the back of our eyes to actually cover our skin. So I'm not a big proponent of going outside.

And every time you go out, you're you're, you know, covering your cells in a thick layer of, you know, high SPF sunblock. Because we do need some sun exposure for sure, and we need plenty of vitamin D, probably the number one most common nutrient deficiency out there.

Yeah. Excellent. Excellent stuff. Thank you. As far as, you know, one article that I was excited to see that, brothers in wrote about and you were and, I know you went through, some reticence training and stuff like that.

Brothers and of course, famous neurologist as well, like yourself in that same vein. And it's great to have these, you know, neurologists that are, that are just functional based neurologists.

That's great, great information because so many people are suffering. We talked about my father with a Parkinson's like illness and the people at the Mayo Clinic, the head of neurology over there, Chuck Adler in Arizona.

Dimension, a name again like this is a guy who just had no idea why my father was sick and dying from this particular condition. Not because he's not an intelligent guy, just, you know, again, just a frame of reference of where he was at and how he was trained.

But then you get into this aspect and again, what, what I think my father undoubtedly suffer from is something that's really ubiquitous in our society.

Again, Brett hasn't talked about it, you know, and that's mold. And living in a home with water damage, mold, mycotoxins, mold, micro toxicity, how those get in glial toxins.

Some of these other toxins. What are your thoughts on this and what have you seen clinically in your people? So for for full transparency, I don't do a whole lot with mold.

I know that Doctor Bredesen has sort of shifted. He's always been interested in it, but it seems to have really become a top priority over the years.

Sunshine, Vitamin D, and Mold Exposure

I worked with Doctor Bredesen back in about 2016, when he first launched his Bredesen protocol, and I was among a group of individuals, some coming from the high, sort of the inner circle of IFM, to meet with Bredesen to hear about what he was doing.

And it was a fairly broad approach, looking at metabolic syndrome, looking at other things. Did talk about mold at that time. It's become more prevalent for him, for sure.

I frame it a couple of ways. One is I do feel tend to like to fall back as much as possible on the evidence based literature. And to be honest with you, and not to dismiss mold at all, but, there is a very, very limited amount of, of evidence based literature suggesting that these mycotoxins affect the brain.

Now, that's not to say they don't. It's just we need more research. We need more data. It's certainly from the perspective of embracing the principles of root cause, cause medicine.

I firmly believe that this topic that we often frame everything in that is chronic inflammation has multiple inputs. And I think we would be fooling ourselves to think that living in a water damaged building and breathing those Mychal toxins wouldn't have an effect on the brain particularly.

It gets through the nose, the crib, the form plate into the lungs and into the bloodstream, affecting the blood brain barrier. So I do think that it is important to identify and address and first and foremost, of course, fix the problem, fix the building, get out of the building, remediate the building.

Because repeated exposure, even if you're on call diamine or other binders, you know, that's that's just not going to be enough if you're repeatedly exposed.

So yes, I do think it's important. The only thing that I would caution is, I read an article recently, I don't even think it had anything to do with medicine or functional medicine or medicine in general.

But I would tell you in prior prior to my, medical education, I was a college student in central Ohio at a little school called Kenyon and Kenyon's fairly well known school.

And it's it it's, reputation, other than being very fine, you know, liberal arts, college is with its department of English. There are many, many writers and, you know, poets and novelists and so forth who passed through Kenyon or published in the Kenyon Review.

So I was an English major. And I say this because I truly believe that one of the most powerful things, if not the most powerful thing we have as doctors is not in the shape of a pill or a supplement or what have you.

It's the story, it's the narrative. And once our brains cling to the narrative that resonates most with us, that's when we're ready for change. That's when we're ready to engage our functional medicine doctor.

When these lifestyle changes, that's when we might even agree to take a medicine. Right? You have to resonate with a story. So what this article was talking about was the importance of narrative.

But taking it even further, that our brains sort of rewrite that narrative and then look into the world for what we call confirmation bias, things that confirm what we tend to already want to or do believe.

So my cautionary note is, and I'm going to speak more broadly in neurology, not just stroke or stroke prevention Alzheimer's, Parkinson's, multiple sclerosis, ALS, PSP.

What I don't want to see is folks coming to me and saying, well, I don't actually have M. S., I have mold disease. I don't actually have ALS, I have mold disease.

I would prefer that people think of this like they're looking up at the sky. They're seeing the constellations. You know, it's all of this individual stars that make up that constellation, right?

It's not one or the other. So you can have ALS, or you can have Ms. and you can have mold exposure, you can have cognitive decline. And you can have mold exposure.

And that does need to be addressed. Excellent. Excellent points. And I think it's all it's kind of, all of it, you know, it's it's never one thing and there's certainly there's no magic pill for any of it because of that. Right.

So it's about the nutrition. It's about the sleep, the sunshine, all these environmental toxins that we talk about. And then, how much you dive into, you know, mindset, you know, the power of positive thinking, dealing with PTSD, dealing with childhood traumas.

What? I mean, what about even just, like, the mindset of, like, you're someone who's who's had a stroke, you know, and just kind of like, how do you how do you unpack that as well?

Talk about mental health and wellness. How that all plays in well is extremely critical. And from the moment I decided that this was the the overall lifestyle medicine root cause medicine approach was one that I knew I had to integrate into my clinic.

I really felt that I couldn't be a doctor. I just felt like otherwise I was just dispensing pills. I have always, always, always had a, I and by the way, I use a team based approach, so it's not just exclusively me.

Mindset, Heart Rate Variability, and Closing Resources

So I've always had someone in my group who focuses on that dimension. Now we don't provide counseling and and Valerie is a very knowledgeable, very experienced, coach in our practice.

Now, she's done this for several years, and she will screen people and she will be very honest and tell them if she thinks they need to see a mental health counselor.

That's very important. But she uses the principles of positive psychology. So moving forward, how do we, frame our thoughts? How do we recognize our thoughts?

How do those thoughts influence our narrative and our determination to get better? And definitely the science is there. We also do a lot of work with heart rate variability right now, primarily using the heart math product line, the inner balance.

So she has a tremendous amount of data, from patients who have Parkinson's or Alzheimer's. And this is stuff that even heart math itself does not have.

So we're looking at doing some publication with that because, you know, that goes right into cardiovascular disease. You know, people have poor heart rate variability, are very high risk for stroke and heart attack.

So it's extremely important to be knowledgeable about that. And as much as you would have a plan for sleep, a plan for your nutrition, you have to take even just ten minutes a day and do some work in that area to balance that nervous system, because that is, I always say it's the command deck of the enterprise, and, you know, you're a cardiologist, but let's say that the brain, it's brain down, man.

And, you know, although there's obviously that heart brain connection. So what those signals sent out by the brain are going to influence the likelihood of even having a coronary artery event.

Right. Or heart failure. Yeah. I will defer to you on the fact that the brain is the most important organ, I guess, you know, you remember back in medical school, like I write.

Yeah. The the author pods would say, you know, the, you know, the purpose of the, the heart is to, you know, pump blood, you know, to, you know, to the bones and and you know, you know, the muscles and the tissues there.

And, of course, you know, Diana, it was all about how do you pump, you know, to the female, apparatus as well. That's all great stuff. And, and you and I and your wife had a very interesting conversation about heart rate variability and really showing the importance of that.

And I love the fact that your, you know, your wife is involved in the, in the office, too. That's really just absolutely spectacular and leads to great patient outcomes. So, doctor, can Charlene, I can talk to you forever about this stuff.

You and I are so like minded on so many of these topics. Tell me, tell me the best way to find you. And then, you have a an online summit as well. So where can people find out more information about, all your work?

We have a website which is functional medicine. Dot doctor. So just doctors spelled out there, functional medicine dot doctor and if you go on that website, you can schedule a complimentary 15 minute, consultation to learn more about what we do and see if there's a good fit, how maybe we can hopefully help you with any of those issues.

Again, I am a broadly a general neurologist, so I don't just see stroke, I see Alzheimer's, Parkinson's and measles and, and so forth. So please do that.

We did have two year, two consecutive years of the Parkinson's Solution Summit, and now we're getting ready to launch our podcast show, The Healthy Brain Toolbox, which will cover more than just Parkinson's, of course, include that.

So stay tuned for the Healthy Brain Toolbox on Apple Podcasts and other podcast channels. Absolutely fantastic. Thank you so much, Doctor Ken Sherilyn, neurologist for this episode of the Heart Attack and Stroke Prevention and Recovery Summit.

We'll see you next time with another spectacular guest. And till then we will.