The Hidden Connection Between Arthritis and Heart Attacks Transcript

(Transcripts are generated by AI and may contain errors)

Introduction and Guest Background

If your endothelial glycocalyx is disrupted, if your arterial system is rigid and not flexible, and you're starting to show placking and some things like that, then that inflammation that was part of your knee pain is now driving the heart attack or stroke that you're heading straight for.

What if aging isn't about slowing down but leveling up? I'm Dr. Isaac Jones. This is the Longevity Leaders Podcast. Hi, I'm Dr. Ashley Beckman. I'm here with the Longevity Leaders Podcast and we are with Dr.

Tom Bain. Welcome. Thank you for having me. So tell us a little bit about yourself and your background first. My background, I have a very disruptive background.

I am a chiropractor by training. I've been practicing functional medicine for over 25 years. I learned with the early movers and shakers of functional medicine.

I've been in practice and in the supplement industry for the bulk of that 25 years. I've had opportunities in product development, product research, marketing distribution.

In 2013, I started microbiome labs with a business partner, Karan Krishnan. and I, and we built that company in 2021. We sold to Novozymes, and that was a very disruptive company in the sense that we made the microbiome easier to understand for practitioners, and we made it easier for them to know how to therapeutically implement treatments for patients.

So after I exited that, Instead of going to the golf course and playing golf for the rest of my life, I decided to go back in and I started a number of other companies in the health and wellness space.

And so I'm presently COO and co-founder of a company called Endo Access, which is redoing how people test and treat hormone imbalances. I'm CEO and co-founder of OsteoSmart, which is bone health centers.

I'm a consultant for CalRoy and I have a herbal company where we do a lot of research on standardization of the extracts, then research with the finished products.

And so I stay very active in the health and wellness space. So I just listened to you speak, and I think it's really important because you are addressing two really big problems within our country and the world, right?

Some of these major diseases that are affecting the majority of the population.

Inflammation as the Root of Disease

So can you go into a little bit about your findings and then the products in your special proprietary formats that you're using to address these? It ultimately all comes down to inflammation.

Everything is inflammation. And it might look different. Knee pain might look different than Hashimoto's disease in how it expresses itself. But at the end of the day, it's inflammation.

And what we find is that the drivers of this inflammation, the cytokines that are driving this inflammation, are very frequently the same thing. The number one liability or problem in health today is cardiovascular disease.

That's the single biggest disability marker that we have. Number two is knee osteoarthritis. Well, wouldn't you know, they're related. Cardiovascular disease is obviously an arterial venous cardiac problem that's driven by inflammation.

joint degeneration is very similar. The same inflammatory byproducts that are creating the inflammation of cardiovascular disease are causing the degeneration of your joints and arthritic change.

And so the arthritic change tends to be measurable or seen earlier than we see the cardiovascular changes, but it's still that same inflammation. And if we can get people, patients, doctors, to start looking at that inflammation sooner, if we can get people a thought process of, I want to prevent the cartilage degeneration in my joints, if we can get them thinking about that, then we're going to actually prevent cardiovascular disease down the road.

So, the more proactive we can be with these patients in controlling their inflammation, the more results we're going to have. The ingredients that we use for the Cardigenics product, the joint restoration product, is a combination of two ingredients.

One's an anti-inflammatory and one is an analgesic pain reducer. It's a Cox and Lox inhibitor, so it reduces pain and inflammation. What's different is we took the time to look at these plants and really understand them.

We didn't take anybody's word at what we were supposed to do. We looked at the plants and we looked at each individual component of it. And we looked at everything that had, in the case of Boswellia, everything that had anti-inflammatory benefits.

And where other boswellia products will tout that they have 40% of one boswellic acid, we found, wait a minute, there's lots of boswellic acids. There's six.

Why would we focus on artificially inflating one of them?

Joint Health, Cartilage, and Cardigenics

We should be standardizing this extract to all six of them. In fact, there are two, I cannot, it's a hard word to say. tericolic acids. There's three of them that are very anti-inflammatory.

And then there's a compound called seratol, which not only is very anti-inflammatory, but we've actually been able to prove that it heals gastric changes due to overtaking of non-steroidal anti-inflammatory drugs.

So you start taking your aspirins, your Advils, your Motrons, and things like that, and you start to tear up your digestive tract. We actually showed that when you took the Seratol, the Boswellia that was standardized to Seratol, we actually healed the gut and reduced the inflammation better than the non-steroidal anti-inflammatory drugs.

So a lot of this happened over a long period of time. learning how to take a plant and extract just the components of it that you're looking for. That was a long part of this process.

I mean, we're almost 20 years down the road of developing this product. So getting an understanding of that these ingredients do treat pain and do treat inflammation.

And if we give them in concert, we're going to reduce these inflammatory cytokines that are driving inflammation. And then we started to see changes in the joint space.

We started to actually see markers that were indicative that we were actually regenerating cartilage. And so now when you think about that, like you can get a PRP injection into your knee and there's some, some data that shows that that increases cartilage, you know, so there's things you can do out there that, but those are heroic things and you're putting cartilage into the joint and you're doing all these crazy things.

What we're doing is we're actually eliminating all the stress. and just letting the body do what it does naturally. So you may be 55 years old, but the chondrocytes in your knees still have the ability to produce cartilage.

They may not be doing it because you're in such a state of inflammation, but if we can remove that state of inflammation, your knees will regenerate themselves.

Now, if you're bone on bone, it's probably too late, but Like I said, that's why the idea here is, can we talk to the 35-year-old? Can we say, hey, look, your joints look like they're 45, maybe even 50. So we need to start doing something now to preserve the little bit of cartilage you have left.

But in the process of doing that, we're going to actually prevent cardiovascular disease also. If you're a medical doctor, nurse practitioner, chiropractor, or other health expert that's stuck in a broken system, there's a better way.

The Freedom Webinar shows you a proven five-step system to build a seven-figure virtual health practice or how to modernize your current brick and mortar practice without the burnout.

Learn to create high ticket programs, automated income, residual revenue, and attract clients ready to work with you. Book your million dollar strategy session today by clicking the link in the description.

Yeah, that's amazing. You had mentioned again when you were speaking that joint pain is kind of a canary in the coal mine, right? It's your first indicator that what potentially there could be some cardiovascular issues down the road.

And again, it's really serious. A lot of our clients come to us when it's a bit late. Unfortunately. Yes. And so especially with heart disease, of course, but even with joint pain.

And so now you have things that can help regenerate that cartilage in an easy fashion, right? Very easy to implement. I'm sure compliance is very good.

And I did want to go in because I'm an herbalist, first and foremost. So you talk about, you know, Because people go, I'm taking turmeric and I'm taking the boswellia.

What makes this different? And you went into the different extraction processes and how that's critical. And if you can go into that a little bit more, because I don't think people really realize.

They just think all boswellia is the same. Or even the certain strains. Oh, great. You put some together. But the extraction process is extremely different versus alcohol, water.

Can you go into that? You can take the same plant and you can make a tea from it, which is a water extract, or you can make an alcohol extract.

Herbal Extraction and Standardization

So those are two different methods, same plant with the tea, you're going to get all the water soluble components of the plant. With the alcohol extract, you can get all the fat soluble components of the plant.

You can't mix them. You can't do that. So you're only getting certain components of the plant if you do it, if you extract it according to certain ways that we extract things.

So, our team has spent years identifying ways to maximize the different active compounds within the plant without changing the signature of the plant.

Right. If I take one buswellic acid that normally would be in the 20% range and I jack it up to 40%, Is that a benefit? And if it was, why didn't nature do it that way?

Exactly. It wasn't that way. And by the way, that boswellic acid wasn't in a pool of water by itself. It was surrounded by a number of other boswellic acids and a number of other active compounds that each take a little piece of the action in reducing inflammation.

And so the point is to standardize it so that you know there's a certain amount of serotonin that's in this plant every time you take it. So you don't have to worry that the one patient is going to get improvements in their gastric system

and the other one's not.

because there's been fluctuations. So it's identification and then standardization. Those are the key components to it. But at the same time, keeping the signature of the plant.

We don't want to make it something that it's not in nature. We just want to highlight the components that are giving us the greatest benefits. Same thing with the celery seed.

The celery seeds that are in the marketplace, they're not standardized to contain the analgesic and antinosusceptive components of the plant. That's not what they're standardized to look at.

So, you don't get any of the pain-reducing benefits with typical health food store-bought cell receipt. You need to use this cell receipt, which uses a very particular type of extraction, to focus and standardize those analgesic, antinosusceptive components of that plant.

And it's a big misconception because a lot of people think, and again, I love food first, right? But the spices, it's a tiny, tiny amount. Exactly. And, you know, it can help people with certain things, but when you're trying to regrow cartilage, you need something more powerful.

Right. You need something that's going to take inflammation out of the picture. If you're not successful at taking inflammation out of the picture, there will be nothing but progression of the situation.

You will not, even if you can't even get it to just stay where it's at. If there's still inflammation, it's going to progress. So if you can take that out of the picture, now you can take a deep breath.

Now you say, well, is the body doing what it was supposed to do?

Inflammation, Epigenetics, and Pain

Maybe at that point, there's a need for some collagen supplementation, or maybe there's some need for some specific B vitamins to help with the utilization of those things, right?

You can do that in the absence of inflammation. But when the inflammation is there, you can give all the collagen you want to give. It's not going to do a thing.

Right. Do you use the term inflammation when you're talking Very much so. In fact, we've done some research with some other ingredients specific to inflammation.

So yes, the inflammation that's associated with aging is a real thing. The interleukin 1 beta tumor necrosis factor alpha-based inflammations come from that side of things.

Can you just describe a few of those? So a few of those types of inflammatory situations. I mean, you can have it with a knee pain, like an osteoarthritis.

You can have it with a diabetic who's got peripheral neuropathy. You can have it with somebody who's got migraine headaches. So those inflammatory cytokines are what's driving this.

And so can we control those cytokines? That's our key. Yeah, it's a big issue in that inflammatory cascade manifests differently in different people, right, in all types of different ailments and symptoms.

Exactly. It's almost like you have this inflammation. Okay, how's it going to express itself? Well, that's dependent on your epigenetics, your lifestyle to that point, maybe an injury, surgeries, or anything like that you've had.

But you can see the same exact inflammatory pattern, and one person's got knee pain and the other person's got an autoimmune disease. So what makes us unique and how it expresses itself is our epigenetics and the lifestyle

and life we've led to that point.

I'm always fascinated with epigenetics because it gives us our power back, right? Even if you've been kind of dealt a specific set of genes, everything we do, how we think and live, can really turn those on and off on a day-to-day basis.

But again, we're seeing so much pain, right? Pain is a huge factor in so many people's life. And so which of the products help with the pain the most that you're finding?

The Cardigenics product is the best pain and inflammation. It's not like you can just get one benefit. You get both. They're together. That is by far the product that manages pain best.

That said, and like we said, there's a very strong connection between the degenerative changes in the joints and the cardiovascular disease that we're either trying to prevent or trying to treat.

That's that same cytokine driven inflammation. But what you have is that, you know, the cartilage, there's not a lot of blood supply to it. You're really dependent on the smallest components of the arterial system to get nutrients there to take waste products away.

So, if your endothelial glycocalyx is disrupted, if your arterial system is rigid and not flexible, and you're starting to show placking and some things like that, then that inflammation that was part of your knee pain is now driving the heart attack or stroke that you're heading straight for.

Cardiovascular Health and Nitric Oxide

So if you take this big picture approach, You need something that's going to impact the nitric oxide levels in the arterial system. You need something that's going to improve the flexibility of those tissues so that they're more pliable, not rigid.

Nitric oxide's the best way to do that. You also need something that's going to treat the glycocalyx and the endothelial glycocalyx. So you need those specific antioxidants that will nurture and nourish the arterial system.

So which ones are those? So that's arteriosil. The nitric oxide, you have Vasconox. And you have a lot of companies that are doing nitric oxide stuff.

What I like about the Vasconox is the research shows that it maintains the levels over a 24-hour period. Because a lot of the nitric oxide ones, you see the research, the testing of it is literally right after you've taken it.

And if you swallow, if you suck on a beet pill and then you check your nitric oxide, well, yeah, it's going to be through the roof. But you check it a half hour later, where is it?

And frequently, it's gone again. So the interesting thing about the Vasconox is its ability to keep the level steady over a 24-hour period. None of the other nitric oxide products on the market show that.

They tend to focus on this big spike they get right after. And candidly, I do both. I do things that spike it and I do things that keep it over the 24-hour period.

I think that they both make sense and I want both. Do you like using the strips for people to check this on their own? I think it's the easiest way. I'm becoming a patient more often now as I've gotten older, right?

And so I need to know that the person that's talking to me knows what they're talking about. And that what you're taking is working. Exactly. And I need to see, I need to see blood work.

I need to see something that's going to say, you're getting better. or the thing you're taking is working and this is how we can see it. That's the easiest way to do it is with the nitric oxide strips.

You know, right there, if you're with the patient in person, you give it to them right then, they do it. It's pennies to do for the doctor, but it gives good data.

Have you been taking it? No, I haven't taken it. Well, okay. That's obvious. I have been taking it. You have been taking it and it's still not working.

Now we've got to work it up. Now we've got to figure out what else is going on. Are you so inundated with oxidative stress that your body's using all your nitric oxide to manage your oxidative stress and not using it for the normal functions that it has in your body?

Are you out of balance that way and we need to focus on reducing your oxidative stress? Do you have a genetic snip that doesn't allow you to process it this way?

And we've got to look at nitric oxide from a completely different mechanism because you've got the snip. So, so the data. You can't do anything. Because if the only data you have is that this supplement works in this situation, then you just give it to everybody and walk away.

But it's your role as the practitioner not only to use products that have been studied, but to also recognize, hey, it's not going to help 100% of 100% of the people.

So let's get out and let's measure and let's see what's working. If it's not, let's start asking why. Is it the product or do I need to add something to it to make the product work better?

It's, you know, practice is, it's an interesting word, practicing on patients, practice. You're supposed to learn. You're supposed to make mistakes and you're supposed to learn from those mistakes.

And so. I think looking at, I would love to have had these tools 25 years ago. I think there are people that are gone that would be with us still if I had these tools.

I'm excited to have them now. I'm excited to continue the research, right? The Cartogenics products were, you know, we're all done with people with relatively normal BMIs.

Right? That's interesting. What does it mean if somebody's got a, they're holding on to 30 pounds extra? Is the cardiogenics going to work as much? We don't know that yet because we haven't done that.

So I want to continue to drive. I want to continue to understand. Or maybe I have to say, Hey, patients got a BMI over 30, you know, you're going to need to take four capsules for the first two months and then you can go down to two capsules.

Okay, great. We've still got, we've got a tool that can still help those people too. Um, you know, so there's, there's still a lot to learn.

Measuring Results and Future Research

But having tools that reduce the cytokines, having tools that increase nitric oxide, having tools that improve the function of the endothelial glycocalyx, The totality of those three products, you're treating and preventing cardiovascular disease.

You're treating and preventing degenerative changes in your cartilage. You're, you're preventing or treating your osteoarthritis. That's an amazing story.

And for the good part of my professional career, those look that look like ticks and fleas. Two things that might happen at the same time, but they don't have anything to do with each other, right?

They're actually the same thing. This is actually being driven by the same inflammatory molecules. And this is

going to present itself in any number of different ways, but if you can get control of it early in life, this is truly preventative medicine at its highest level.

Yeah, and that's what we're here for. It's always frustrating, right, as a practitioner that people come to us so late. Exactly. And especially with these things that really could be prevented.

Yeah. And now we have so many more amazing tools. We have better products. So, in conclusion, I guess, what are you most excited about for kind of the future of this realization?

Because to me, finding this out is really instrumental in this whole field, and especially for cardiovascular health and vascular health. It's new information.

This connection is new, but extremely significant. Exactly. I think the excitement is ultimately it's around the human clinical trials. If you're a company in this space and you're touting yourself as whatever, great.

Show me the human clinical trial that used your product, your finished product, in the human clinical trial and show me the results. I think there's a number of companies that have done that.

We turned the microbiome upside down on its head with microbiome labs and doing human clinical trials, the first human leaky gut study. And so that was our point of differentiation.

I haven't changed the game. I've changed the sectors that I'm looking at, but I haven't changed the game. I'm still looking at what do we need to do? We need to do more clinical studies.

We need to see in humans what happens. And so we've got some great data, but we need to keep pushing the envelope. We need to see the arteriosal. How does it impact?

really, really sick people. How does it impact the person who's had multiple bypass surgeries? What is the impact on those people? We've got data. The data is mostly on healthy people or somewhat healthy people.

So can we push it to the next level and start looking at people that have problems? And then what? Do we have to increase the dose? Do we have to add in supportive nutrients?

to be flexible and open to changing as we learn more information and as more data comes out from the research studies. That's what I'm excited about. I'm excited about continuing to learn and continuing to evolve when we find more information.

I agree. It's an amazing and really interesting shift that is extremely important. Exactly. Thank you so much for joining us today. Thank you for having me.

I appreciate it. It's been very insightful. Thank you.