Podcast Introduction and Red Light Therapy Overview

The, the, the lymphatic system, essentially what what we found through the research around this is that, you're you're seeing, a number of different things improving out of this.

One is the clearance rates for different waste materials from the brain. And, that's that's really a measure. Those are typically blood draws. And what's been assumed around this, although we in some cases, what we have is like the, the ABC so kind of the dosing and how it's being used and how it's like how it's triggering the x, y, z of outcomes.

We don't have in some cases the, the mechanistic underpinning for this completely delineated yet. But the, the increase in clearance of of different, kind of waste proteins in the brain has been measured relatively, effectively in large scale studies.

Welcome to the Health Fix podcast, where health junkies get their weekly fix of tips, tools and techniques to have limitless energy, sharp minds and fit physics for life.

Hey health junkies, on this episode of Health Fix podcast, I'm interviewing Forrest Smith. He's the co-founder and CEO of Kenyon, a red light therapy device that I've been using a lot lately and digging.

Now, here's the thing. We talk about red light therapy, but we take it to another level with us. We're talking about photo bio modulation. That makes it sound super serious, right?

Well, here's the thing. The kidney device has a combination of red light, but it also has lasers in it to make it even stronger. And so this is some of the technology you want to be thinking about when you're looking at red light therapy, and especially this day and age when we have lots of different devices out there and you want to know what's best for you.

This particular device is very targeted. It hones in on certain areas and gets to let's say the point, if you will, is you hear me talk about a little bit later and how I'm using it on acupuncture points.

Now, one of the cool things that force and I dive into on this podcast, we start to talk about how just 15 minutes a day, 4 to 5 days a week, you can reduce inflammation.

And one of the specific areas that not too many people are talking about is thyroid inflammation. So many folks have Hashimoto's thyroiditis, and even one of the co-founders of Kenyon does.

And they found that this really helped him to reduce inflammation. And so in this podcast, we're going to be talking about a little twist on on the usual chat about red light and infrared therapy and pain.

Well, now we're going into talking about other things. And even the concept that Kenyon has moving forward for helping with gut health. So using targeted laser therapy and red light therapy to help guts, who doesn't want to have something for their gut that they don't have to take copious amounts of pills and things of that nature? Yes.

Sign me up. So we're gonna talk about why you want to blend laser with red light therapy. We're going to talk about draining your brain of toxins using red light therapy.

We're also going to go into really how this can impact and help your vagus nerve. So stay tuned for some cool stuff that we are learning about. And I'm like geeking out over basically, in talking with forest about what his company

has been uncovering and using the latest research on red light therapy and lasers for helping our bodies using photo bio modulation.

So let's introduce you to Forrest Smith, co-founder and CEO of. Hey health junkies, I have Forrest Smith on and he is the founder and CEO of Kenyon. And we are talking about red light therapy today.

But we're going to take it with a different twist. And what you guys have heard before on the podcast from me. So, Forrest, welcome to the Health Fix podcast.

Thank you so much for having me. I'm super excited about the conversation today. Oh man. We have got all kinds of stuff to talk about because I geek out on Red light.

It is my number one thing for recovery. It's kind of I'm I'm kind of addicted to it.

Forrest Smithu2019s Injury Story and Device Origins

I will be honest. And since now trying out your device, I'm like, okay, this one has a whole nother. It's opened up new doors of red light therapy for me.

So of course, I always love to start podcast off by asking like, okay, how are you using red light? You kind of gave me a little hints, but, you know, let's tell the folks are listening, like how you're using it, how you came to get obsessed with it, perhaps, and, how you got to where you are today.

I love it. I, I've been a kind of a lifelong, athlete, really competitor up through, university. And then, kind of fell off, you know, as I started kind of going through my career and, one of the things that actually, from a, from an injury standpoint was a trigger for me for getting into red light was a meniscus tear.

And the reason for that is with meniscus tears, you can't really do a great, there's no good outcome from a surgery on this. It's kind of 50 over 50. Whether you're going to go up or down from the, the outcome from the surgery.

I was actually out of competitive sports by the time I tore my meniscus. And so, you know what happens with that? Is it? It used to drive me out of my training patterns by, you know, if I, if I, that there's certain movements, that trigger inflammation and kind of trigger, pain in the, in the joints.

So overhead squats, for some reason, was just one of those that the movement pattern with. It was just not a lot of fun. And so I would trigger that inflammation.

My knee would swell up. It'd be blown up for a few weeks, and I couldn't really get that, pain and inflammation down very quickly. And I don't really like taking pharmaceuticals for it, so, I just kind of stuck with, you know, being out of the gym, out of training for weeks at a time, which which really was kind of an unfortunate end, you know, had a negative impact on my overall mental health and physical health.

And so we have an opportunity, with photo bio modulation or light therapy, to be able to treat that very effectively. And I couldn't find anything on the market that was you know, there was a big gap between 30 to $50,000, really cool laser therapy devices that would sit on a desktop and had a one that you could hold on it and see amazing results and had great dosing.

Or there were kind of panels, that don't dose very well and are kind of a genuine, almost prototype level product because you're just strapping a bunch of LEDs on you don't really have a, a set kind of dosing pattern for those.

And, and looking at that, we found that there was a, an opportunity to be able to develop something that, you know, fit the the difference there. How do we get something clinical level with lasers included, passing all the regulatory but sub $500 so people could actually afford to use it at home on a daily basis instead of the 30 to $50,000 version.

So that's how we started with, with, with our first product with canon is the, the Move plus and it's it's been

amazing. It's really, you know, the what that's changed for me is two main things from a training standpoint is, I'm kind of middle aged now, a, you know, tall cross fitter, my, my lower back, doesn't love me for that.

So, lower back and then this old meniscus, injury where it used to be weeks of time when it would trigger. It's now a day and a half or two days because I can get that information back down super fast, and I don't go back into 100%, but I can at least get it back into movement and training and then kind of scale back up on the weights within a couple of days versus weeks.

And that's that's really kind of my, that's that's what kicked off my, obsession or, deep dive, the rabbit holes of, of, for the bio modulation. Oh, man, I know that your story isn't, you know, uncommon, especially for a lot of us folks.

You know, I'm also in my late 40s, and we're looking at more like mid to late 40s. Something to say 48, but we're looking at the devices, you know, and and for a lot of people, we're kind of trying to think, okay, well where I hurt some of these things just don't make sense.

Like get like a like panel. I'm like, that's whole body to me. I don't know how I'm going to pinpoint something, you know? And a lot of people do ask me that.

They're like, well, what kind of red light device is going to be best for me? And I'm like, well, what are we working with here? And and what are we doing?

And of course, today I'd love to kind of dive into that because I love using the canyon because it is specific to target. I have a slipped disc l5, S1 and it's a pain in the butt, literally.

And so, you know, things like that for a lot of people are common. But I think a lot of people, you know, they get the idea that Red light therapy for pain.

Cool. Okay, we get it. But I want to kind of dive into an in kind of the mechanism of why this works, you know, talking about circulation. Because we know circulation declines as we get older.

Talking about nitric oxide, things of that nature. The mitochondria, one of the biggest that's been kind of hot lately is the thyroid. And talking about how we can help red light use red light therapy to help with the thyroid.

So I would love to. That was a huge thing there for you, by the way, for I mean, let's speak out a little bit for folks to understand why laser based red light therapy gets deeper than just skin level stuff and how, you know, how we're targeting mitochondria, how we're targeting circulation a little bit better.

How Targeted Photobiomodulation Works

I love it's a great question. We spend, tens of thousands of hours on this exact topic, building out mathematical models to show and demonstrate how photons move through tissue.

And then we also kind of use our mathematical models, these Monte Carlo models, that we build and then we test versus physiology, because the key to the outcomes from light therapy is, is biphasic dosing.

So the more you dose, you go up the hill from outcomes. And then you jumped the shark at some point. So if you if you kind of overdose it doesn't go back below zero.

It's not going to these aren't these aren't kind of, shark based lasers. They're not going to cut you in a half or anything. They are, they're class one lasers.

They're not going to damage you, but it can reduce the outcomes that you get if the dosing is not right. So there's a sweet spot at the top of that hill from a dosing standpoint.

And what really drives that is, how many photons are triggering photo acceptors in the body. And so what we've

done from a dosing standpoint is look at at what depth of tissue, because you have a lot of different kind of layers of tissue.

I want depth of tissue. And at what order of magnitude, how many of these photo acceptors exist and where are they. And we worked backwards into how to dose, from a, a, a photon delivery system.

And we actually, you know, on one side of things, we do use an LED for our red light because red light doesn't penetrate through as much, and we're never going to see that going through to the depth of tissue that we're we're kind of working on from a targeting standpoint.

We do use a, a primary optic to be able to reduce that kind of typically LEDs just to kind of give a bit of the background. That's the engineering side of this.

LEDs are a dye based technology. They emit light in all directions from that chip, until they're packaged into what looks like a cup of a, an electrical, electronic component.

That cup kind of pulls that back in from 360 degrees of a mission to 120 degrees. That's still extremely broad. And it's also, it also just continues to expand.

So if you're if you're in front of a panel as an example, two inches forward or two inches back changes that dose massively. And you know, you don't know where you are on that hill with the biphasic dosing.

And so, you know what we've done, with the the laser piece is we've, we use lasers for our infrared because that combination lasers instead of spreading at 120 degrees, it's around 3 to 4 degrees of, of, spread.

And it doesn't continue to spread. It's what they call collimated. So it continues directly and more efficiently into the tissue for dosing internal tissue.

And, what we're trying to do with our, with our dosing model is dose. Both the superficial tissue, which is actually done very effectively with, with different types of beds.

And, you know, the guys, for example, at Thor Laser make a really cool bed that, that, that doses really effectively for the superficial tissue and your skin is your largest organ.

So, you know, it's a it's a good way to release a lot of nitric oxide. And there's some really cool benefits for those beds. What we do more is, target a combination of the superficial tissue and the internal tissue so that if you have, soft tissue pain and inflammation, lower back issues, shoulder issues, neck issues, osteoarthritis of the knee, particularly when these, these pathologies are driven primarily by inflammation.

The outcomes are so much more powerful because you can target that internal tissue versus having the kind of superficial tissue, targeted. And then some of the effects of that bleeding over into that internal tissue, if that makes sense.

Yeah. Yeah, I think a lot of people don't realize this because let's put it, you know, there's some creative copy out there, right? And you're reading down and it sounds like it's going to cure everything.

And, you know, red light therapy is amazing. It's game gamer. All you need is one device that's going to do it. What I found, you know, it's like some of these panels, especially the ones that you could put on the body that have a heating kind of component.

Like, all those are nice, and especially if my belly hurts, you know, that that feels good, you know? But when I'm wanting something, like you said, to target, then we do need to consider having something that's a little bit more targeted.

Yeah. Our collagen. Yeah, yeah, yeah. The, the, the laser collimation really, really helps. And you know, there's

also I think just how you, how you target this from a theoretical standpoint has really helped us as well.

One of the things that we've noticed in, because it's still a relatively early, to market technology, from it, from red light therapy, and one of the things that we've seen is that, a lot of the, the targeting or the, the metrics that people use to measure what their dosing, to your body is essentially the power levels coming out the optical power levels coming out the device or the optical power levels coming into the tissue.

And even within those, there's a there's a big difference. And as an example, with the the move plus we have ten lasers per module, three modules. So 30 lasers.

Originally we didn't have that many. We had kind of based on the medical literature, just two. But with the same level of power. What we found though is and this is one of the things that took us down the, the, the kind of tens of thousands of hours into the mathematical modeling and physiological testing is that even if we stayed within the best practices from the medical literature, the power levels, delivery and having that in ten emitters instead of two made a huge difference for outcomes.

And so that kind of triggered the question for us of like, this isn't really why why this is the same level of dosing according to how it's measured from the medical literature.

And what we had to do is go back in and start really kind of, parsing what's what's the best way to understand how our bodies are accepting these different photons and what that's triggering from a signaling pathway.

And there are a number of different signaling pathways. I think you mentioned nitric oxide. It's a it's a really big one, that we trigger, but there's a number of different things that are triggered by, photo by modulation when the, when the dosing is correct.

And I think the, the, it's not really broadly known that, you know, if you, it's not just a power into your total system as a, as a physiology. It's really targeting correctly with the right wavelengths, with the right frequencies, with the right power levels, etc..

These different photoreceptors. So start from what you want to trigger and work backwards. It has become a much more effective way for us to work on the dosing modeling versus just, hey, this is this is one system.

Let's put this much power into it. And that makes sense. Absolutely makes sense. You know, I think for for the average person, they may be thinking like, okay, so if I need to target it, what kind of device am I looking for?

And like, can I change the power within it or do I need to like bring it back and forth? What do I do? You know, if you can kind of dumb it down a little bit for me even here.

And then not saying my audience is dumb, it's more me. On this one to be like, okay, so do are there different times we put it in for are there different, you know, distances?

Give me the scoop there. So we recommend dosing be done at the skin level because otherwise it's extremely hard to be consistent in the dose. So have have whatever whatever light therapy device you're using, make sure that it's on your skin and that you have an understanding of how that's going to be delivering the this dosage, kind of over time, we modulated it through time.

We wanted to make it as simple as we could when we designed our product. Again, what we're comparing it with is these really kind of that the goal is to make it as low friction as possible so that people can use it at home and not have it, and stack it with other things that they're doing.

You know, if you're having coffee in the morning, being able to wear it makes it much more functional so that you're not having to hold it on yourself or standing in front of a panel or something like this, making it travel friendly.

Dosing, Inflammation, and Acupuncture Points

So if you're on an airplane, you can actually kind of, use it as well, without the rubber gloves, of security coming out to, to kind of make sure that your, your, your batteries are, aren't going to blow up the plane.

We've been through extra sec clearances for that. But the main thing is reducing the friction for people to be able to, to, to use it, in our assumption means that they'll take it on more effectively and hopefully, replace something like pharmaceutical solutions that they have for pain and inflammation.

But to take to take one step back, I think, you made a really good, comment about, you know, the, the, the kind of claims that we see around photo by modulation or light therapy.

There's so many of these, and we get this quite a lot. We want to be very upfront and set expectations in a way that users are going to be very happy and have a great experience with this.

And I think one of the things that we get a question about a lot is how could it be possible that you could treat so many different pathologies? How is this not snake oil?

And I think one of the things that we we really focus on with this is from a mechanistic standpoint, we're treating chronic inflammation. That's one of the main outcomes that you get out of this is reducing chronic inflammation depending on where you're treating in the body locally.

But it's also there's some protocols that we can share, in a moment about how to do that more systemically as well. Yeah. There's there's some nice high leverage points of the body for, for being able to treat, and when you reduce chronic inflammation, chronic inflammation is such a scourge in the body that when you can reduce it anywhere, you can really see some beneficial outcomes for different pathologies in that area.

And that's that's as far kind of as as disparate as things like osteoarthritis and endometriosis and you know, like my knee and, and kind of, female reproductive tissue.

How how could that possibly not be, snake oil. But the key is it's not it's not necessarily treating specifically that pathology. It's treating the upstream cause or mechanism, which is that, that inflammation.

So again, that's, that's a it's a deep one to dive into. But it's, it's a very reasonable question for, a lot of people to ask, because when you see something that's claiming such broad levels of pathology treatment, there's over 7000 studies on photo by modulation now, and they cover a ton of these.

Our team contribute to this international group, cataloging. And they have a full database on drill down into these, that I can share as well. But it's, it's a, it's a powerful tool for chronic and, damaging inflammation in the body.

And I think that's the key takeaway that we try to, to give to people. I think that's great because I mean, think about it, this way. Oxidative stress leads to inflammation, leads to breakdown of the body.

And as we're aging, like, what's the best anti-aging thing? We have to slow that process down. And one of the things, you know, I was going to put out there just as a note, and I do want to talk about your the research that you guys are diving into.

So we could put something in the podcast notes, because a lot of folks are really wanting to learn more, but also want that background now to to make sure we're not talking snake oil.

One of the cool things I have thought about the device is that because it is so targeted, you know, we were talking thyroid for a minute. We also have acupuncture points that can be targeted as well.

And so as an acupuncturist, I geek out a little bit on it and I'll be like, oh, I'm going to put this in certain places. Based on one, what I know to be connected for, for the inflammation in the body.

Have you heard anybody else doing that? Is anyone else playing around like me? Yes. There's a couple of really

cool labs out of, China, where we're kind of acupuncture is more, more, broadly adopted.

That have done great research on this. We're actually seeing this, relative to things like, you know, treatment and I, I've forgotten specific points that there's, there's acupuncture points, kind of like, there's, EEG points, like where you have, like, a letter and a number, specific to those.

And they're using different acupuncture points that are not local. To, for example, vagus nerve, but from which we're seeing really powerful autonomic nervous system impacts.

And there's, there's a number of different things. That's one that that comes to mind. Just because we saw this last week, I think it was a relatively recent, you know, in the last year study on this.

And measured through, I believe heart rate variability and some EEG, data that they were pulling from autonomic nervous, state, really helping people get out of fight or flight, kind of, sympathetic nervous system responses in the kind of at rest and digest phase.

And it's, it's powerful. I think there's there's a lot everything's connected. And we see, you know, a couple of different things. One is, is, this this idea of acupuncture and acupuncture points triggering, high leverage outcomes.

One other one that I think is, a really interesting one, that, that you would like to geek out on probably as well is, that the lymphatic and lymphatic, system, so, you know, one of the things that we see with a lot, particularly with, with, kind of our aging users is, if you're not sleeping enough, if your recovery is not great, you start generating and aggregating more waste material in your brain.

And how can we get that waste material out of the brain? Because it it increases the risks for different types of dementia, for for Alzheimer's. But also just you just don't feel cognitively, as aware or, kind of alert.

And what we found is this, this system of, glial cells in the lymphatic system is kind of what they they've dubbed it is, the glial cells clearing out the brain from these different, waste materials.

And then the lymphatic system kind of behind the, behind the cheekbones and then, in the next are kind of bottleneck points for that. And so being able to treat the, the brain, and then this lymphatic drainage system for that waste material has a powerful impact in clearing a lot of that waste material out of the brain.

That's so cool. That's so cool. And and like, you know, a lot of the points as I think about it are like close to the parasympathetic calming points. Two.

So you get two for ones. And one of the things we do in our house all the time is we're walking around. My husband in particular is walking around all the time with the device actually more behind the ears a little bit because there's a point Chinese like called on me on.

That's a calming point where the vagus nerve comes out. And so we're like, you know, everybody's got their their new necklace on here. But of of patients to have that as true because then they can help to really get things drained trained out.

Now let's talk a little bit about how how red light therapy. You know photo bio can never say photo bio modulation. It's actually there's a method. Oh. What how that helps.

Things like plants, like thyroid, like moving, moving the lymph nodes out of here. What are we getting after? Because I think for folks to like, okay, that's cool.

What what is exactly happening? Is it nitric oxide? Is it him? Is it where we what are we going after? So the the what we're seeing right now from the.

So so those are, I think, splitting those off into two different versions. One is with the hypothyroidism and

Hashimoto's, there's been more and more research over the last 3 to 4 years really demonstrating, increased functionality out of the, the thyroid.

And there's this I'm blanking on the, the CPT, the kind of the metrics, the kind of biofeedback, that they've measured for these. But it was a very substantial, improvement from a, thyroid function.

I think I mentioned it before we started kind of chatting here. One of the reasons we started on this, this research path is, my business partner has Hashimoto's, which is essentially, kind of super hyper, hypothyroidism.

And, it's been tough for him because it affects energy levels and, and, and as part of that research, going down the, the rabbit hole of, you know, how how is photo by modulation moving the needle for this?

We found that it actually is a really broadly, experienced pathology for, for women, particularly around, perimenopause and menopause. And this was, you know, our research team skews male, and it's just not something that was on our radar because of that.

Thyroid, Lymphatic Drainage, and Brain Health

It and it's been really interesting to see these these kind of double digit increases in key biometrics around, thyroid function. It also stacks very well with, a couple of different supplements.

And so, the two that have come up in multiple studies are, vitamin D3 and selenium. And those, those actually, work on separate pathways from the photo bio modulation.

But I'll have to get you the, the actual research papers over and happy to kind of, tag those through and provide a little bit more summary on those. Because I don't have the biometrics, that, that were in the, papers in, in mind.

But I do know it was, it was, kind of double digit increases in, thyroid function measured, typically with blood markers, I believe. But, on the other side, with the, the, the lymphatic system, essentially what what we found through the research around this is that, you're you're seeing, a number of different things improving out of this.

One is the clearance rates for different waste materials from the brain. And, that's that's really a measure. Those are typically blood draws. And what's been assumed around this, although we in some cases, what we have is like the, the ABC so kind of the dosing and how it's being used and how it's like how it's triggering the x, y, z of outcomes.

We don't have in some cases the, the mechanistic underpinning for this completely delineated yet. But the, the increase in clearance of of different, kind of waste proteins in the brain has been measured relatively, effectively in large scale studies.

And again, part of what this has has been assumed to be is the increased level of mitochondrial function. And so there's a photo acceptor in the the electron transport chain.

The fourth phase of that electron transport chain called cytochrome c oxidase, where essentially particularly the infrared, light triggers a dissociation of nitric oxide from that, that binding site.

And, you know, this isn't something that doesn't happen naturally. What it does is it just increases the pace of of that kind of, dissociation. And when you increase that pace, it's a bottleneck.

And so when you remove the bottleneck, what happens is, when the when the dosing is correct, as you essentially double your cellular energy generation in the form of ATP, so, you double the production, capacity for this.

And there's a couple of things that happen, kind of in, in that, kind of nuclear retrograde signaling from the mitochondria, which is and you alluded to it earlier, is the oxidative stress, you start seeing a, a very short term.

And we had a good, analogy for this. I was out in Texas, recently, and, we got a good football analogy for it, which is essentially you spike these these, reactive oxygen species very short term, and then they drop, and carry on for 24 to 48 hours in that lower state.

And the our football analogy for that was you're essentially getting your mitochondria as a football team to run more plays, like it is at the end of the game.

You got your two minute drill, you're running more plays. That means you're going to get more yards, but it also means you're going to have more dropped passes.

And so that's that's the reactive oxygen species. It kind of spikes short term. But you're going to see more touchdowns, which is kind of see more of that energy generation.

And they're reduced oxidative stress downstream in that, in that intracellular signaling. And, you know, all of us could use a little bit of that. One more plays, in the game.

But also, I mean, energy as a whole. You know, when we think of energy, a lot of people are going to think just like energy in the body. But we don't realize that energy's made every single cell and every single place in the body.

So if we do have an injury or we do have a spot that's like a hot spot, let's call it that, you know, where we tend to have pain. Having something like this on board can be really nice to be able, like, okay, pop it on, you know, afterwards and then you're not limping for the next.

Yeah. Two days and or limping two days later when things all catch up with you. That kind of thing. So, so important. So important. Yeah. It's great. One of the things that we've, we kind of coach with this is, is again habit stacking.

And when you're consistent with it the, the quality of tissue, two big things. One is re injuring the same tissue is very common. And particularly with, with a lot of the performance athletes, we, we work with professional crossfitters, the Olympic US weightlifting team, you know, of NBA, NFL special special forces guys.

And they're really pushing their bodies to the, the, kind of, the margins of what a human can do. But what we find out of that is they they often reenter the same tissue.

And when you see, what they look like, we we've kind of taken a deep dive on this with a lot of them and said, let's put you on an infrared camera and see what's the difference between the tissue temperature for your healthy tissue in this area that you keep reentering?

And one of the things that come up is, when you have a, an old injury and it does keep reentering very, very often that, that you have a cold pool of tissue around that injury and your cardiovascular delivery of oxygen and of nutrients that actually help that tissue heal is impaired.

And that's that's based on this chronic inflammation, issue. And again, that's something that we treat very effectively. And we've seen kind of, you know, world class athletes ten years after an injury, still having these cold pools, but you start treating in 4 or 5 weeks in from treating with photo by modulation all leveled out and reduced.

The, the tendency and risks of ongoing injury to that same tissue. That's really cool to hear that. I know a lot of people who listen to my podcast get the thermography of Total Body, or even just like upper body for the breast tissue, so that you can see where cold pooling is happening, even on the jaw.

You'll see a lot of it for chronic TMJ, and you'll see a lot of a lot of redness in the neck. But you'll also see like elbows or wrists or hands, even being able to just depending on what's going on.

So that is, is even relevant to those of you who are listening, who are not athletes. This is it. This can be all the carpal tunnel stuff. Yeah, yeah, absolutely.

And even things like, you know, peripheral neuropathy, you start seeing that demyelination of, of, nerve tissue in it. And it's really a lot of that is metabolically based.

And we're seeing it so much more because of the increase in prediabetes and diabetes. Because the lack of moving in standard American diet, a number of different factors.

But when you can see that, that drop in, in tissue, kind of temperature relative to as a reflector or as a proxy for, metabolic function and blood delivery, and, you know, really what you'd like to see happening in the tissue from a health and wellness standpoint?

It's it's just really powerful to see people who have, you know, a hard time to go, you know, at the other in the spectrum of the performance guys, of the professional athletes, people have a hard time going to go walk a mile.

Being able to start, you know, getting out and doing five miles because they've been able to get that metabolic blocker, kind of bottleneck out of the the system and really kind of start working through that from a scaling standpoint.

So the question about, you know, going from, say a mile walk 2 to 5 with the use of dosage here, you know, obviously the biggest thing that I always have to remind people is you have to use it to get benefit.

It's not a one and done kind of thing. You have to be consistent. But like consistency wise, like time, what's what to, you know, on average, how much time and how many days a week for people to really see progress.

So we we advise 15 minutes a day, and if you can, every day but a minimum of, of, 4 to 5 days a week and you're going to see, really powerful changes.

The short term changes are the inflammation drops very quickly. The long term changes are particularly if it's something where you've seen traumatic tissue damage, you're recovering from a, an injury or a surgery, the recovery of the soft tissue, and even bones, is, is really accelerated.

And what you grow back from a, that there's great histology slides. So histology slides are essentially kind of cellular level like pictures of what's happening in the cells.

Mitochondria, ATP, and Systemic Benefits

And the histology shot slides, showing the quality of the the scar tissue that develops is, is night and day. You're, you're it's so much closer to your original tissue.

So much more plastic, so much more, mobile. So much stronger, so much more robust scar tissue that it's just night and day and, it's one of those things where even even with things like, C-sections, we've seen, you can you can really see almost an invisible line there because people have started using this from from a, a dosing standpoint for, for being able to minimize the scar tissue size and, kind of optimize that the type of scar tissue and the, the strength and plasticity of the scar tissue. Wow.

That's incredible. Because so many women do struggle with those darn, darn scars and they can be numb. And then I feel like it hits pelvic floor. And there's all kinds of other things too.

Now let's let's talk about the belly for a second, because you had briefly mentioned Dimitrios as we talked before, we hit record about IBS. And and I think a lot of people are thinking like, how is it even going to get to my intestines?

How would it get to a uterus? How can you know how how does it have an effect there? Give us a little background on what you've seen there, and probably some of the lymphatic movement too.

As part of it as well, with the head like, absolutely. It really comes back down with, with IBS, actually, one of our

business partners has IBS and the which, kind of flares into the Crohn's occasionally and it's, can, you know, you can you can, you know, he would have these episodes where he would lose, like 40 or 50 pounds, because he just, he just, you know, and ended up in the hospital.

And then, you know, if you're on a, on a training cycle, you lose anything that you've gained. And it's very demoralizing for me. I just kind of a mental health aspect as well.

But the, the it comes back to the same type of things that we're treating in general, which is, reduced inflammation. So, in the gut, when you can reduce inflammation, you can actually start, you have those tight junctions that you can actually start kind of, you know, if you're if you're having a standard American diet, if there's microplastics and, and you know what, you're eating and drinking, there's a number of different causes for why we're seeing leaky gut, with, more and more of our users.

But when you can, you can reduce the inflammation. You actually, what's what's happening in the gut there is when you have that leaky gut, you're actually always just consistently putting more information out into the systemically.

So you become you start having more immune issues, immune issues, kind of, autoimmune issues downstream from this, when you can start kind of putting up those, those tight junctions in your gut more effectively by reducing the inflammation, people start seeing really powerful impacts, from, you know, IBS is one, the other the other trigger for IBS, that we see is this FB ratio, which essentially kind of there's a, there's a band to to too much on either end of the spectrum is not great.

But there's a band of, of different types of, of gut, microbes. And when you can measure them, typically for the, but the funny way of phrasing, but with poop studies and, when you're, when you're outside of the healthy band, and you can actually there's kind of, you know, tighter and tighter bands around, you know, healthier and healthier, outcomes.

But those are, those are a big impact for, that IBS piece as well. But I think the big one is reducing inflammation, helping to, to kind of shore up the, the leaky gut.

And then the kind of secondary, impacts for that are shifting that FB ratio in a, in a way that helps you with that balance, create more short chain fatty acids in the gut, which does a number of things downstream.

And it's probably had a bit of a rabbit hole to dive into. But how your gut senses, satiety and, the different nutrients that it needs is really, LinkedIn with that as well.

There's some there's some great kind of literature on this. We've seen more and more, you know, it's been nice to have things like it was epic, but it'd be nice to be able to treat, patients with a more natural methodology, that that increases, GLP one naturally.

And one of the things that you see with that is kind of that short chain fatty acid, kind of that the balance of your gut promoting more short chain fatty acids as a, kind of production output of these bacteria.

And then the downstream impacts of that relative to, to your gut satiety and how your gut recruits or triggers you to recruit additional nutrients. And, there's, there's it's a it really is kind of a ball of wax to, you know, a can of worms to, to unwind there.

But it's, it's a really powerful tool for being able to support, better diet. Tighter, tighter gut, tighter tight gut junctions and less inflammation in the body overall.

That makes sense. It makes sense. I definitely use relay for my my gut when it gets a little funky. And I know it helps for sure. Now I'm thinking, you know, that plus liver for a lot of folks to the fatty liver thing is a big deal as well.

So you know, obviously I'm talking different protocols and and whatnot. And as a doc, I probably could think of all kinds of fun things to to do and show people with the, with the acupuncture points.

But let's, let's actually show people the device so that they can see what it looks like, how it goes on the body, and kind of give the breakdown in terms of why you designed it the way you did.

So, so you, you know, for utility and whatnot. So folks can see that. Absolutely. So I'm going to I'm going to show you, as a, as an, a demonstration of this, my, my kind of normal protocol.

We work with a lab out of Japan. This developed a protocol called the, proximal priority therapy. And the the logic behind this, was essentially treating, we treat we interact with hemoglobin, very effectively.

And we mentioned earlier kind of, dissociating nitric oxide, dumping a bunch of nitric oxide in your blood, really healthy for you. Systemically. It's one of those things where there's, there's a bit of a dive to have back into this, but there's a very big paradigm shift from kind of a to, you know, thinking of the body as a two gas system of oxygen and carbon dioxide.

And I might be dating myself a little bit here, but, like, that's that's what we learned coming through school to a three gas system that now includes nitric oxide and, there's there's yeah, there's a lot to dive into and parse on that.

But the long story short, is being able to dump a lot of this into your blood, improves the plasticity of your blood vessels. So your cardiovascular endothelial tissue is the, I guess, the medical way of of, referring to that, and the plasticity there really is a powerful lever and a powerful, early diagnostic tool for cardiovascular disease.

And for general cardiopulmonary health.

Gut Health, IBS, and Proximal Priority Therapy

But one way we found that's really powerful for doing this is taking the three modules and then putting one on the back of the neck and then two over essentially the largest blood vessels in your body.

And I started this, this protocol as part of a trial we were doing with the Japanese lab. And what I found was, I'm doing this for 15 minutes every morning, with my emails, my coffee.

And then I'm doing my lower gut, about, you know, an inch and a half below my my navel, for treating gut as well. And this is, again, these are kind of part of that, proximal priority therapy.

One of the things that we found out of this is that affect, or essentially your mood, and how you feel was really powerfully moved by this. And I did this for about ten days or 12 days and didn't seem much like keeping a journal.

And I didn't see much movement. After two weeks, you notice it like you, you feel better, like, and you just approach every day with a little bit better optimism and mood.

And again, the research calls this affect. It's a very subjective thing to measure. But the outcomes were so drastic with that that it's, it's, it was something I wanted to try and that I've kept on since then.

And the one other thing that I noticed with this, just as a, as an aside, this is very, again, kind of anecdotal, but it is in line with what we're seeing from the, the, the medical research as well is immune health.

I've got two boys, five and nine, and they always dragon colds and stuff from school. I've been doing this protocol for a year, and I just don't get sick.

And so it's just like the immune response that your gut and again, kind of this, this, cardiovascular impact have is and again, it's kind of one it's very anecdotal, but there are research studies showing kind of outcomes for this.

One of the problems for this, though, from a research standpoint, is that it's so multivariate, your gut and the impact of gut on, immune health that it's really hard to find that like, we've got the ABC and we got this out, we got ABC, what we're doing, and we have this x, y, z of of what it's triggering.

And we know the changes that, that, that are kind of happening between those. But like what's, what's actually mediating that is still not 100% agree.

There's, there's different kind of schools of thought on that. And, yeah, you get two researchers in a, in a building in that, and they've got three arguments having about six different subjects.

I could see that. I could see that. So interesting that the protocol like so, because I'm called to do it this way because of the thyroid. I've been around that way versus the protocol being this way.

And I'm now going like, I don't know which way my husband wears it. He probably does it the way you do because he probably would have videos or something.

But me, I always have it backwards. So the funny women are turning around for a little bit. Yeah, but it's nice to like, again, you know, with, with women, female, female, hypothyroidism and, and, the impacts of that.

Again, we just kind of looked into this over the last couple of years, but it's so widespread. It's really kind of like I feel like 60 or 70% of women, in, in perimenopause or menopause have this hypothyroid impact.

And, that's, that's a huge number of people for it to not really have a, a more broadly kind of available best practice or approach. And I think doing it as you're doing it is a is a really awesome way of, of doing that.

So we'll see. We'll see what happens still and have one over here. Oh and just adjusting the other folks. But you know what's going on with my myself.

But it's interesting you said two weeks because I think a lot of people the same age were used to like the magic pill, you know, situation. And so giving it a little time and having a little patience is absolutely key.

Yes, patience and consistency. That's you know, again, one thing that I do and I I'd love to to include this as well as we also talk to folks who are like, you know, let's, let's so we say habit stick and find something that you do every day and then stick it with that.

And, and very often people will come back with like, oh, like my meditation. And, you know, if I ask, you know, how many times you've meditated in the last two weeks and it's one time, that's an aspirational habit.

That's not a habit. Habit, you know, it doesn't have to be the healthiest habit you stack it with. But, like, if it's Netflix and Cheetos that you're doing every day, do it with that.

I love it, I love it, yeah, whatever. Whatever will get you to do it. And drinking coffee, most people are on that jama or checking email, as we said.

Maybe if that helps with mood and email, you know, if it's work. So let's round out this podcast with some, like, fun stories of really cool transformations you've seen with folks, just really some of the coolest stuff you've seen.

I'd love to hear a couple stories. Absolutely. So, that there's two ends of the spectrum that are very exciting about that. And the one end is we're seeing professional athletes, who have, very often is repetitive stress injuries.

So guys who are like, okay, I'm a, I'm an ultra marathoner, but my feet are like, I'm gonna have to stop doing my job because I can't like plantar fasciitis.

Like the soft tissue impacts of that are just so heavy. Those guys over a month period getting back in and kind of on the road and with no pain is is a huge when we see very similar with, kind of crossfitters and Olympic lifters, their knees and their hips, they, they do so much kind of of the same type of, Olympic lift movements, that their hips and their knees just, just get worn out with it.

And so things like patellar tendinitis, being able to treat those and get those get, get I mean, and they can't believe

it. They're, they're like okay, I'll try anything.

Like, let's just see, let's, you know, judge the tree by the fruit type thing, and seeing those gets those guys get super excited about being able to go back in their career, like what they do for a living as a, with, you know, kind of renewed vigor because they have they're empowered to actually treat the pain points that that were stopping them.

That's that's the one in the spectrum. But for me, my, my favorites, for this are what we see on the other end of the spectrum where our, our aging users, haven't been able to sleep through the night for, for ten years, and now they can sleep through the night.

You know, my wife couldn't walk up the stairs. She's walking up the stairs. We're going on daily walks. She's been having to use this this, these little, like, scooter things in the grocery store.

She's walking everywhere now. Those. That's what really gets me excited.

New Products and Vagus Nerve Stimulation

I think those are the ones that we, You know, we're we're a mission driven team, and our mission is to increase the quality of life for the largest number of people we can in the most measurable way we can.

And that's those are the those are the home runs that I take away from. I think a lot of people can relate to those. Absolutely. I mean, especially the sleep.

It's because it's not something folks will tend to think about as the lymphatics and whatnot to help the brain during to to sleep. So super, super cool on that end.

So what's next for you guys? I saw a little blip on the website about something maybe called Heel Plus, and yes, we have a we have a new product. That's so this, this, product, the current move plus actually has a eight nanometer infrared, and 616 nanometer deep red.

And it's really particularly dose around, soft tissue, chronic pain, inflammation. One of the things that's happened over the past four years, that we've been developing the and selling the, the move plus is, more research into additional wavelengths.

And more research into kind of other areas of the body. And so the Heal Plus will be treating gut specifically with four different wavelengths of infrared for the gut, because those those actually penetrate through better.

And, you know, you can dose with the move plus. But this is going to be really dialed in specifically for gut tissue. And it's going to have huge impacts.

We're already seeing some amazing impacts. And it's interesting because the, the you know, on one side, it's the GIS that we work with from a, a kind of, interactive standpoint, but the, the ones who have been most, kind of positive or upbeat about this have been immunologists, because we get it into their hands and they just see those outcomes, and they're just excited to have it.

You know, a non-pharmaceutical tool in their toolkit. So, that's been really powerful. And then one more that I think will be exciting for you is, later this year would be, probably more towards September, I believe.

So the Heal Plus will be up in May, for delivery. And then in September, we're going to be delivering what we're calling the complex, which is a transcutaneous vagus nerve stimulation device.

Which is just awesome. That's one where the, the, the short term impacts are much more noticeable. But it's it's triggering, faster responses from the, the nervous system from the neurological tissue.

And, the reason we actually started in with that one was because we were developing our gut product, and we

noticed in that development that every time we run a test, roughly 15% of the, the users wouldn't get a great outcome from the different blood draws her brain and different things that we're testing for from looking at the brain impacts.

And, because your gut is so, so tightly tied to your brain is kind of your second brain is, you know, what we're seeing from a research standpoint. But those 15%, as we dove into it, essentially those guys were in fight or flight, just kind of, high adrenal stress mode all the time.

And, you know, your your vagus nerve is your highway of communication between the gut and the brain. And so with that highway of communication has too much traffic.

Those signals just aren't getting through. And you're not going to see the best outcomes for the, the, the gut, treatments as well. So, what we found was a great way to fix that was help people modulate their, kind of autonomic state.

So, you know, get them out of fight or flight and get them back into rest and digest. And when you do that, we're now up to like 99% of the people seeing the outcomes that we were anticipating from the the gut treatments.

Oh, cool. Cool. Well, I know a lot of folks are going to be very excited to see your research and where to find it. So we'll definitely get that from you so that I can put it in our podcast notes at doctor J. Carlson.com.

Because boy that's that's good stuff. I am really excited to hear about that because guts are tough, guts are really tough to treat. And, you know, trying to explain to folks about the nervous system is and even sometimes they can be doing all the things and nothing's yes to and that's, that's that's not fair.

It's just not fair. Yeah. But and sometimes you just need a little bit of like you need that 20% boost to kind of get you out of the hole. We've found the same thing with treating joints is like, oh, if I just had a 20% reduction in my inflammation and pain, I'll be back out walking and moving and training and doing.

And oftentimes it's just kind of let me get out of the hole so that I can actually see the benefits of of what I'm actually what I'm what I'm committing to from a diet and exercise standpoint.

And, yeah, it's just an exciting thing to be able to do, to kind of contribute to that for, for people's, experience and journeys to health. Awesome. Well, I look forward to seeing that.

I look forward to looking at the Heal Plus as well, and checking out what else you guys got going on over the next couple of years. So I thought, thank you so much for coming on.

I sincerely appreciate it. Likewise. Thank you for having what a great discussion. Yeah. Look forward to more. Look forward to more things like this. Hey fellow health junkie, thanks for listening to the Health Mix podcast.

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