The Foot-Brain Connection: How Your Feet Control Brain Health, Aging & Movement Transcript

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Introduction to Brain-Based Healing

When we think about longevity or optimization of us as a human, it's really based off of these core neurological functions. And one of the core neological functions is the ability to stand on two feet in gravity and to be bipedal.

A lot of movement patterns that we have are actually reflexes within the spine. That's how integrated and critical human movement is to living. To move is live and, to live a long time, you have to keep moving.

Welcome to Take Back My Brain with Lori Hammer, where real healing starts in the brain. I'm Lori, a functional nutritionist and mom who's walked the path from anxiety and burnout to clarity and calm.

Each week, we're going to dive into brain-based tools like amino acid therapy, gut health, fasting, and faith to help you reclaim your energy, emotions, Hello and welcome back.

Today I am excited because I have never covered this topic before and so I'm with me today Dr.

Meet Dr. Emily Spiegel and Functional Podiatry

Emily Spiegel who is a functional podiatrist. She is movement specialist, she's been a ballroom dancer and let me tell you this lady is living it to lead it.

Like she does the lifestyle. And so I cannot wait to dive into this foot brain connection and movement and all those things. So you are in for a treat.

Dr. Emily, thanks for being on today. Of course. Thank you. I am so excited for our conversation. Yes, I think feats are so important and yet we're so mean to them.

Like how many people are really taking good care of their feet out there? I would love to know, like, how did you get into functional podiatry for one, because I don't think most people were like really a functional pediatrist?

How does that work? So give us your story and then let's talk about how we can be kinder to our feet and how that affects our brain. Yeah, no, absolutely.

And yes, the feet are highly, highly underappreciated and prioritized, I would say. Until we get foot pain, then we're, we prioritize it. We're totally focused on those, yes.

Yes, exactly. But my passion and my journey into podiatry or feet actually started within the fitness industry and the movement side, which makes sense, because that's the thread through everything that I do.

As I went through podiatric school, I actually started to see very early on that it was a isolated patient sitting in the chair perspective, and it very counter to my background in fitness, which again was movement.

And I started the question a lot of what was being told to me. Penite is also unfortunately very, very highly surgical based. So I was trained as a surgeon.

I did surgery outside of residency for five years. I understand how podiatrists as surgeons think. However, the body is very interconnected. There are a lot of options.

Every surgery, even the most minor surgery has its risks. And I've seen a of those risks and kind of the

complications come to life where it was kind.

said as just this routine thing. And of course there's complications. So I really started to bring my passion for integrated movement into podiatry really from the beginning when I saw the isolated approach.

One year into residency, I actually left, went back to school, got my master's in human movement, and then of, course went to residency so I could get licensed.

But that couple years where I stepped out to get this really deep integrated dive into barefoot science, fascial, diaphragm, breath, pelvic floor, that whole focus as soon as I came out of residency was, okay, this is how I can connect my appreciation for movement with my medical degree, knowing that we are integrated.

How Feet, Walking, and the Brain Are Connected

So I consider myself a podiatrist, but I don't treat feet. I treat movement. Yes, I treated human, But I treatment movement, and I'm a movement specialist.

And I love that because everybody moves or we should all be moving. And so if you cannot move correctly, there's a lot of other things that happen. So a lotta people are focusing on their hip pain when it very might be that the fact that they have an issue with their big toe or something like that in their feet.

Can you start connecting some of those dots for people? Yes. So what I would say to really appreciate this, the foundational movement pattern that we do every day is walking.

If I can get my patients and all the listeners to think of that foundational movements, and when we think about longevity or optimization of us as a human, it's really based off of these core neurological functions.

One of the core, neurological, functions is the ability to stand on two feet in gravity, and to be bipedal. So a lot of the movement patterns that we have are actually reflexes within the spine.

That's how integrated and critical human movement is to living, right? To move is, to live. And to, live a long time, you have to keep moving. You never, never want to stop moving, so a of that foundational component, just thinking about walking is yes, You have be able to move your big toe.

Why that's important is walk the right way. To take a long step, you need to be able to move the big toe. However, You also have to balance on one leg.

If you don't have the capacity to stand on leg, then you cannot take long steps. If you do not walk fast enough, you not activate the circulatory pump from your feet all the way to your brain.

And that's how you stimulate brain-derived neurogrowth factor from a circulator perspective, from the movement perspective. So very, very powerful, connected.

The demands of how we control walking is a neurological response. It's biomechanical, but it's neurological. We need to appreciate both of those components.

Right. Are you saying if we don't walk well, we're going to age faster? I'm not saying that the research is not that I am sharing the. Yes. It is demonstrated that.

The speed at which you walk now speed can be extrapolated from, like I said, step length, but it's also things like arm swing. And when you swing your arm or T spine rotates, when your T-spine rotates your pelvis rotates.

and it is really this spirality. of the human body of our fascial tissue in our skeletal system that is what is hydrating and kind of bringing that fluid and that stimulation and the fascia hydration through the system.

Yes, speed will tell you a lot about the spirality. Of course, it's visually, but as soon as someone stops moving spirally when they walk, they inherently are walking slower.

Right. Well, that makes sense. I think of like the Parkinson shuffle and, you know, as an 80-year-old who has a walker and they're just doing this and it doesn't seem like, You know they are not getting that BDNF going on their brain.

So no fertilizer there, so their brains cannot recover. Correct. So fun. I'm thinking of, I am 52 and I m a fast walker, so I feel like I've got that down.

That's a good thing. But as we are aging, transitioning into menopause, sometimes my feet hurt and like, what the heck is going on with my foot? You know, stand for a while cooking in the kitchen and all of a sudden I realize I don't think the pads of my feets are quite as cushy as they used to be.

Can you address that? There are quite a few changes that can happen in the feet as a woman goes through menopause, the different stages of menoppause.

And of course we know that the number one hormone that's going down during that period is estrogen and estrogen is deeply connected to our collagen, not just the skin, but all of our connective tissue.

So a lot of the ligaments and the tendons, the blood vessels that supply the nerves. So we can start to get things like neuropathy. There is a menopause related neuopathy or a neuritis.

You can get fat pad atrophy as you go through menipause, you can to start get arches that fall, or just the legamentous integrity of foot starts to weaken, which means the feet get tired faster.

that travels all the way up to the skeletal system, which means maybe the low back, maybe then knee, may be the SI joint. Everything starts to become connected based off of our foot posture.

But yes, there are a lot of changes that happen for women as their hormones are changing. And I try to one, bring an awareness to that.

Menopause, Foot Changes, and Proactive Care

Then two, how do we anticipate it I know you appreciate this in your practice as well, is that anticipating changes in the human body is way easier to navigate than reactive.

So reactive medicine is much harder to, to you navigate then preventive or anticipatory medicine, which is why I'm really into educating and have people know that there's these changes.

Also, a lot of people will not speak about. let's say a menopause-related neuropathy. I almost guarantee a lot of gynecologists are not talking to their patients about that.

And that's unfortunate because then the woman is left to think that she's kind of going crazy a little bit that, she is not feeling these things. It's not really fair to just throw things in the bucket and say, well, it's menopus.

There's lots of things, right? Because then you do feel like you're crazy and you are like, there's nothing I can do about it when there are definitely things that…

Let's talk about the proactive piece. As we're aging, what can we do to, you know, love our feet? Yeah, so absolutely. So there's a few things that I recommend that everyone do every day.

This is not just women going through menopause. Everyone, all ages, is one, stimulate your feet. Stimulate the thousands of nerves in the bottom of the feet, it could be by being barefoot, going around your home bare foot, Going outside in a grass bare feet you get the bonus of earthing and grounding by doing that.

I'm the founder of a company called Noboso and we have these sensory based products. We have a foot release tool that is tactile. So you are stimulating the nerves that way, wearing minimal shoes, doing Pilates and yoga.

You're doing barefoot practices or exercises. That's a really, really important one. Second one is to train the muscles in your feet just like you train any other part of your body.

You have 26 muscles on the bottom of each foot, and those muscles play a really important role in standing, but also walking and the absorption of impact forces.

So an impact force is energy. Efficient movement is based off of those muscle. Doing things like short foot forward lean, balance exercises, all of these things actually strengthen your foot.

So that's the second one. I would say a third one would be to understand your foot type. So flat feet, high arch, and then understand some basics on how to set your base.

posture feel like, and I teach people how to set their base. And then how does that affect the rest of the body? Right. So we have to kind of recalibrate how we talk to gravity and no one teaches us when we're like little babies learning to stand, you're just like stand.

Right. You're not like lifting to gravity and lift the pelvic floor and push your toes down. Right? You just want the child to stand and then their nervous system figures out a way.

And that's one thing that is fascinating about our nervous. System is that it will find a. We are based off of survival. we are all about organisms or survival, so your nervous, system will figure out.

A way for you to. Stand and for. Your posture might look very janky. off. compensated, but you are standing, you're vertical and you were somehow getting from point A to point B.

Now the amount of stress and load and compensation in that process is individualized and our goal is to minimize the stress as much as we can because that's created along that longevity.

The least amount stress, the most efficiency, that most ease at which you stand and move that supports movement longevity Hey friend, just a quick break to remind you if calming your brain is the missing piece in your practice or in you home, my Mind Thrive certification course teaches you exactly how to do that with targeted amino acid therapy.

So it's real science, real results, no band-aids. Enrollment is now open. Link is in the show notes. Back to the Show. Yes. And then we have to think about our feet, our posture.

I love the fact that you talked about grounding and the pelvic floor and going barefoot. My little grand babies, they're bare foot all the time, right?

And so when they put their little shoes on, that kind of like don't know what to do with them. But I go barefoot as much as possible. I walk outside as well as I teach my clients all of those things because it's the proprioception.

It's signals from the feet to the brain that are so, so important. What do we do with, I feel like it's an epidemic right now. Everybody, not everybody, that's over exaggeration, but a lot of people are getting these knee replacements and the hip replacements and not that those aren't necessarily needed in some circumstances, how does that change?

how your body is perceiving, you know, walking and dancing and just normal life stuff because all of a sudden we have this artificial knee or hip and that's a completely different signal.

So how does that affect our feet or how's the feet affecting the knees or do you understand what I'm saying? Like how is that all connected? Because there's so many more lately.

Yeah, so there is obviously a very deep correlation between foot posture, foot movements, and every time you move your foot, your leg rotates. So the knee will actually collapse in or the hip will internally rotate.

Foot Strength, Shoes, and Toe Alignment

This is where you do see an influence on that. Now, of course, the number one reason for knee replacement and a hip replacement is osteoarthritis, or some arthritis, oftentimes is Osteo, a degenerative joint disease.

Yes, there is a genetic predisposition for certain types of arthritis. But a big contribution to it, which accelerates the rate of that degenerate of joint diseases is improper skeletal alignment and overload of stress, Which was kind of what I was talking about, right?

poor joint alignment. If your joints are not aligned, you're going to wear down the cartilage faster than you should. This is in the big toe, the ankle, and the hip.

Those are the bit ones in lower extremity. So let's say you've already done that. It's too late. You got the joint replacement, right? Now just replacing the joints does not mean that the skeletal alignment is now set.

What you've done is you, is, you have taken away the natural joint surfaces that have nerve endings and you replaced it with inert objects that no nerves.

So the awareness. And the perception of joint alignment and joint optimization is going to be less. So again, you still could be moving with high joint load, but your joint.

Load is on a titanium head, so you don't feel it. Right. I'm very much into post joint replacement, doing a lot of proprioceptive stimuli to the joint soul.

Cause the Joint capsule, which has the thousands of nerve endings that is essentially sensing the stretch and the position of the joint it's helping is going to feed into the nervous system and help you skeletally try to maintain as much alignment and essentially dynamic stabilization.

You still have to be doing that. You have think of it not just as I'm doing a joint replacement to take away pain. And if I do that and my pain has gone, check, right?

No, we still need high joint awareness. We need fast stabilization. We need good strength around the joint. We needed to think about the foot that possibly contributed to the improper joint loading in the first place, because you don't want to get the other side done at some point either because your compensating.

One, one interesting thing that I think a lot of people don' realize is post joint replacement, you can actually get these surgical limb length discrepancies.

So something that I always look for in my patients is if you have a knee or a hip done is to really look and make sure that you are now symmetrical because active adding in the joint and you're cutting away bone to essentially make room for the implant.

You can start to shorten by, you know, half a centimeter, it's five millimeter, right? That's enough to cause an obliquity in the skeletal system. So just post replacement, get a really good, thorough postural assessment.

See a functional podiatrist, see, you know, a chiropractor, functional physical therapist, someone who can assess skeletally how you are aligned. And then if there's any asymmetries to try to balance those out.

Yeah, I love that. Let's dive into shoes. Okay. Can we, can you wear any shoe? Does it matter what kind of shoe you were? Can you ruin your feet by wearing bad shoes?

Well, yes. Yes, he has all of it. So you had already shared that there's thousands of nerves in the skin and the

bottom of the feet, you mentioned that briefly, and these thousands nerves need to be stimulated when we stand and when you walk.

They actually talk to your brain and tell you about the surface you're walking on, about degree and acceleration of impacts coming in. It's part of how you stabilize and you load during dynamic movement as you feel the ground.

Okay, so we appreciate that. Now you put a lot of cushion under your foot, cushion in a shoe, while the cushion is going to take away that information.

But if you need that formation to create a movement pattern, what are you going do, right? So you are going move less optimally. Will you still be able to move?

Yes, because your nervous system will find a way. Again, this is optimal with minimal joint stress and high postural alignment and stabilization and efficiency and fascial loading and cognitive stimulation.

No, but you will be moving. So research has shown that chronic use of supportive and cushioned shoes will cause an atrophy and a denervation of the foot muscles.

Again, the 26 muscles in the bottom of foot. Those 26 muscle in bottom in foot fastly run into your pelvic floor, or the base of your pelvis, just how you stabilize your hip joints.

It runs into you diaphragm, which controls how your breathe. it runs up your neck to your tongue. So there's a powerful, yes, there is a power skeletal, fascial stabilization sequence that happens by contracting those foot muscles.

So if we make them weaker by wearing supportive and cushioned shoes, you've now destabilized potentially pelvic floor, diaphragm, up neck, tongue. You have airway, your breathing, pelvic stabilization, hip stabilization foot stabilization.

It affects everything. It does. Yes. Yeah. Even your tongue, people. So are you talking like barefoot shoes or what is going to be the best option? Yes.

So ideally something that has minimal support and minimal cushion. Now there's a spectrum of how you could go on that, right? There was maximal shoes and then there was completely barefoot minimal shoes.

Every foot type, foot strength, injury history, or activity that you're using the shoes for. We'll fall somewhere along that, right? Should every single foot for every activity be completely as barefoot as possible?

Well, no, because there's the complexity of the human foot and injury history, et cetera. But where do we fall within this to try to get as minimal as our foot can tolerate at that given moment and for the activity that you're doing?

Where this'll make sense is, let's say if you have flat feet or fallen arches and you are a nurse and stand on hospital floors for 12 hours straight, I'm not gonna have you in a barefoot shoe, right?

We're gonna go over in this direction. But when you're not at the hospital, you were going to, say, if go to the gym, try to get you into those minimal shoes.

I'll teach you how to release your feet and find a neutral position and strengthen your foot muscles. So that we're kind of finding that balance between both.

So, that's how I try to work with patients to understand the activity, again, the foot type and the injury history. Something like plantar fasciitis is going to change the conversation of how can guide someone to shoes based off of where they are in that story of plantAR fasciaitis.

Right. What is plantarfasciatis? Plantar fasciitis is a overload of the plantar fashia, which is on the bottom of foot.

So your plant of fascia, thick band of tissue on bottom on foot, it starts in the heel and it goes across the the foot it does not hold your arch up, so that is common misconception.

It does support the arch, but as it crosses the of bottom foot into the Arch, It splits into five pieces and goes into all five toes. Okay. The way that we use it dynamically is every time we step or run or jump, whatever we do, we have arch compression.

So as your arch drops, you stretch the plantar fascia and the stretching of your plant of fasci is potentiating it. You're putting energy, kind of like a bow and arrow or a rubber band, right?

You are potenciating and then you're going to recoil and that's how you release energy. As you arch compress, if you have dehydrated, a little bit stiffer, you don't have enough rubber band effect in your plantar fascia, and you Arch compress and stretch, You can start to micro tear.

fascia. So it is a injury, micro tear injury to the fibers that creates the initial itis, plantar fasciitis. And then the body creates a repair response to it, which if it's not navigated the right way, then it starts to essentially perpetuate and then you get stuck in the cycle of injury repair, injury-repair, and you just can't get out of it.

My practice, I specialize in chronic plantar fascial symptoms and I get the patient out of that cycle. Yeah, I've never had it, but I heard that it's super, super painful.

You don't want it. No. I'm going back to shoes. Are there shoes that can trigger that plantarfasciitis or is that something different? So let's say where I could see a patient get plantafascia is Let's say you have a higher arch because I don't want to just talk about flat feet.

Toe Spacers, Balance, and Recovery

Let say, you, have, a, higher, arched foot and higher are a little bit stiffer. And let's, say. You wore the minimal shoes. So like a really flat shoe and you did something that overloaded your tissue.

Okay. So you're on your feet and you have this unusual high load and stress. And because of your foot type and the shoe combination, you are not able to tolerate that level of stress, so eventually the load, and load of the plantar fascia just fatigued.

Interesting. What about shoes that like, you know, squish your toes all the time? Yeah. So we spoke a lot about the cushion and kind of the structure of it.

The toe box shape is the whole other conversation and the shape of toebox can have an influence on toe alignment. Now when we think about the foot and balance and push-off, so like when you're taking a step, your toes are really, really important for optimizing foot function and just human movement.

So what I often will say is really the strength and the power of the human foot lies in the toes. It's all about. I spoke a lot about yards, but it's actually everything in toes, So when you squish the toes thinking like a stiletto or even just a be like, a loafer, or a ballet flat, right?

So it's not just stiltos, but it could be a belly flat. It could a soccer cleat, it can be an ice skate. You know, I do ballroom, it could be a ball room shoe, which does squish the foot, right?

So there's different things, that start to have an effect on the feet. So that is going to shift the optimal toe position that can start, to cause compression in the front of the, foot that causes neuromas, bunions, hammer toes.

That can lead to metatarsalgia, that can be distress fractures, technically could lead a plantar fasciitis. So we want to always think toes are designed to be long, straight, wide, and flat on the ground.

And you want shoes, ideally, they can accommodate that. Yeah. I've never liked wearing, you know, little pointy

shoes and those kinds of things, but even like my tennis shoes.

You know? My little pinky just kind of comes in a little bit and I'm like, So I was just buying new hiking shoes because I'm going to the Dolomites in Italy to hike for 12 days.

And thankfully I got a wide toe box, but they're kind of cushiony. and then it was like, what do I do? Do I find a barefoot? But I don't usually hike bare foot.

Yeah. So what I would say on that one, again, I'd mentioned my company, Nobosa, but we have sensory insults. What I will tell patients is if you are going to be in a thick cushioned shoe, and that's the reality of the situation, right?

How do we make that environment more stimulating to your brain so your foot stays active? I'm going to put a sensory insole in the shoe. And that's part of why I developed the Noboso insoles.

They're textured, right? So just going talk. So that a way. The other way that you can do it is what you do before you put on the shoes and when you take the shows off is just as important as the issues you've put it on.

At the end of the day, it's a long hike. You're going to release your feet, you're gonna stimulate your feets. This is going make sure that you are bringing that sensory back to the foot after 10 hours hiking or whatever it is in the, in cushion shoes.

Right? So we're trying to, how do we find a balance? I'm all about working with people's reality, giving the nervous system as much as we can, knowing that some of these things are part of reality.

Gotcha. So you had mentioned bunions, hammer toes, those are all due to improper shoe fit or is there another factor? So there are other factors. I am not one to blame bunion on shoes.

It is not entirely up to shoes. It really is based off of foot type. Okay. So when your foot is unstable, which is usually the flatter foot to type, so when you'll be falling archery flatter, foot, Which is called overpronation and that collapsing in that destabilizes the part of the foot that prevents the bunion from forming.

with these long bones in the foot called metatarsals. And when you destabilize the foots, the first metatasal can swing out and that's what creates the bunion.

So it's a really a mid foot stability issue that causes the Bunion bunions are not really. big toe problems as the pump is, but the destabilization is more towards the mid foot.

Now, where this foot type comes in, cause a lot of people will say, Oh, I got my bunions from my mom. Or there's like a genetic kind of conversation around it is that bunion in themselves are not genetic.

The connective tissue integrity. is what is genetic. So ligament laxity, having a lot of more loosey goosey ligaments and your foot has over a hundred ligamens.

If you have loose ligamen, then the joints can swing out creating the bunion. To me, that is a more complete accurate story of bunions versus saying they're genetic.

They're not genetic, they are not on your DNA. You cannot do a DNA test for bunions, right? They are literally genetic! Connective tissue is, and then again they aren't entirely footwear based.

Got it. Kind of going in that same line of just taking care of your toes. What about toe spacers? I feel like they're just yummy. Yes, I love toe-spacers.

I should have one around me. But I'm like, my toes feel so yummy! I loved them. There was actually quite a few people, a famous comedian who did a joke about a toe spacer.

It was really funny. Um, cause everyone is talking about them, but it's hilarious. Yeah. Right. Where he went through TSA and they were like, and it was like his toe spacers.

Hilarious. You have to link it.

Forensic Podiatry and the Bigfoot Footprint Analysis

Link it for your, I will definitely have link that because it is very funny. His, what is his name? Josh? Yeah, Josh Jordan or something like that. Yes.

So funny, so yeah. They support natural toe alignment. So you're sliding them on all of your toes at the same time. It's going to stretch and align the toes.

Long, straight and flat. These are good for bunions and hammer toes, plantar fasciitis, neuromas, metatarsalgia, from a I have pain, here's toe spacers.

The whole other side though, is they are an incredible form of recovery. So at the end of the day, throw on your toe-spacers, I absolutely love that. After a long hike, through on you toe spasers and I'm going through TSA.

You're totally going to love. And then you can see if they say the same thing to you. So those are great. And then actually for the older population. So as we get older, we are of course concerned with balance and falls.

A lot of that has to do with your toe alignment. As we older we inherently start to get a little bit of a contracture and a pulling in in our toes. Toe spacers are actually a balance tool.

That is also how you can learn. Yes. Can you walk with the toe spacers, do Pilates, those kinds of things? Is that a good thing? Walk around the house with them on?

Totally. Yep. In your shoes, walking around, Pilate's, yoga. Yeah. Of course it has to do with style. So there's some that are like really bulky. I'll say a brand, Yoga Toes.

Yoga toes is a really, really balky one. So that one, you would have to sit on the couch or in the bed and do it. At Nabosa, we sell some that hook around your toes and their lower profile.

So you could use those doing Pilates yoga in your shoes, walking around. I love it! I was listening to your videos and looking on your website and you've had a really interesting, what do I want to say?

It was on The Discovery Channel. Yes. I just started laughing. I'm like, of all the things, who would a thigh? I don't know. Never thought about it. People speak, and if you're in forensics and stuff, you can determine height, weight, all those types of things.

And you were asked as an expert on the Discovery Channel about Bigfoot. This is just fascinating, so I want everybody to listen to this because it applies to just humans in general.

But I would love to know how that came about and what is the significance of that. Yeah, so what, just for context for everyone. So yes, I was asked to be on Expedition Bigfoot.

I'm was on two episodes and my background before fitness, before podiatry is actually forensics. so I. Was actually going to go through forensicks. My brain just, that's how I look at things is very mathematical.

So when they approached me really as a functional podiatrist, not a forensic podiatric, they actually did not know that that was my background. And then they're like, perfect.

This is like we could have not planned a better podi just to be on it. But they sent me some foot impressions that they found and I did. Not watch any episode.

I didn't Google anything about Bigfoot so I could come at it in this total authentic thought process. And so they sent me the imprints and the imprint, I went through the analysis and they look very human-like in the sense of the plantar grade foot alignment.

So you could tell that there was a transverse arch within it. And you can tell the first metatarsal was aligned to start to create a little bit of a tripod foot.

The toes were in an alignment where they could push off kind of again, human like in that sense. So that was part of the analysis. Then I was looking at the width and the length of.

Of the foot, which you can use that to then essentially calculate. This is based off of, you know, thousands of historical correlations to say, if you do this and this, that we could predict that your height would be X.

And so one of them, I think it was around nine feet. It was something around the height. I don't, remember it, was a while ago that I filmed it. But I did the calculation and I was like, based off of this I am, would guess that whoever created this is around, you know, eight or nine foot, whatever I said on the show.

and they were just like. My goodness Yeah, which is really interesting and then the second episode which I loved even more because it had to do with movement It was less about the imprint as they had a couple imprints which means now I was doing an imprint based gait assessment and From that I could actually determine step length and step the width of the gait, how wide the feet were from each other.

And based off of this step length is were they truly bipedal like us? Were they propulsive? So you can stand on two feet and pick up your feet kind of like a primate and be highly inefficient and apropulsive.

That's kind like someone with Parkinson's and they shuffle a little bit. Versus a true human gate with long beautiful steps. So it was interesting to see that and then the steps Picked up at one point and that's where I was like you could figure that one of them was younger and did they like carry like did They carry their child and because it carried and they continued to step and Then the step when the little ones disappeared were kind of deeper and more So we're just like, okay then mass of the person if they picked up the child really interesting Oh my goodness.

Final Takeaway: Balance for Longevity

I don't even know what to say to that. So, you know, everybody's like, is there a big foot? I know Dr. Emily, some feet. Yeah, I came on, and did my gait assessment off of footprints, which is what a forensic podiatrist does.

Though I absolutely loved it. And I was like maybe the world is telling me I should get back into forensic pediatrics and do some stuff. That is fascinating because it's such an important field.

You know solving crimes and all those kinds of things. Totally, yeah. Yes, totally. This has been insanely fascinating. If you were to leave the listeners with one final thing about feet and brain connection, what would it be?

So I would say balance, so focus on your balance because if you cannot balance on one leg for 10 seconds, which that's the marker by research that that 10 second time is, you know, check.

I'm able to achieve a functional duration of balance. Balance unlocks step length. Step length unlocks walking speed. Walking speed is how you activate the circulatory pump to get the brain drive neuro growth factor to the.

Very, very important. So that would be mine is if you could do a couple of minutes of single leg exercises every day, I tell patients when they brush their teeth, stand on one foot for 10 seconds, go to other side for ten seconds.

Just do it three times per side. Check. Yeah. Because we're so sedentary, our society is so set and Terry, you know, I'll do my stand up, desk and see my clients and those kinds of things.

And I will stand on one leg while I see, my client's and I, well, see how long I can do that because it stimulates the

brain. I don't get as tired, then you drink and you have your amino acids and your salts and all these things combined.

But a lot of it is you just can't sit like this all day long because your feet have to be stimulated and activated. And I cannot wait to get your insoles.

I'm going to go order. Yes, I love it. Thank you. We really, really appreciate you fascinating conversation. Awesome, I'd be honored to be on again. Awesome.

Thank you, all of you for listening. I am always honored when you listen. It means a lot to me and will mean a lots as well as if you would like, subscribe and share this because so many people have feet issues.

So let's share with everyone, get everybody walking, moving, and get your insoles, your toes, phasers and all the fun things out there. God bless you and I will see you in the next episode.

Thanks for listening to Take Back My Brain. If today's episode helped you connect with hope or direction, I want you to follow the show, leave us a review, and share it with someone who needs it.

And if you're ready to start your own healing journey, explore our courses and our coaching programs at lorihammer.com backslash store. So until next time, remember you cannot medicate away a nutrient deficiency and healing your brain isn't just possible, it's Powerful.