Walking, Longevity, and the Sixth Vital Sign

There's a correlation between decline and morbidity and mortality. Really understanding why we walk the way that we walked. Truly unlocking walking speed to find momentum.

I really, really hope that you incorporate these different tips and tricks. Welcome to today's episode where we are going to be talking about one of my favorite topics.

No, it's not feet. It is walking. I absolutely love to talk about bipedalism, really the evolution of what makes humans so unique to how we walk, our ability to walk.

And then more specifically, because we got to tie it back to longevity is, walking speed and the at which we walk and how that is a predictor of morbidity and mortality.

So if you are looking to live a long, long time, you wanna make sure that you were not just staying active, but you're walking fast enough. Now, when you look at the research on this topic of walking speed, there was actually a research study done by Fritz, it was a 2009 study, and he looked at and referred to gait, or walking, walking's speed.

as a sixth vital sign, and that as we start to see a slowing in our movement patterns, there is a correlation again, in that morbidity and mortality. Now, when I first was introduced to this research, of course, I love any research that has to do with walking and longevity, is there really wasn't anything that was proposed in the research study.

It was more this interesting association, kind of like a floor to stand up test, right? Or a sit to Stand. There's a lot of movement measures or assessments that we can do that there's a correlation between decline in the outcome and morbidity and mortality.

But the downside of research studies like this is that they don't then provide the then what part of it. And that's what I want to focus on here. That is my focus as a functional podiatrist is when you have a research study like, this which is so important, and yes, walking speed is important.

It is demonstrated to be this powerful predictor morbidity and immortality. I then am here to tell you what you need to do to maintain your walking speed as you go through each different decade, 40s, 50s 60s 70s into your 80s and 90s.

Now, oftentimes I get asked what is the ideal walking And here's the thing, I could throw a number out to you.

Ideal Walking Speed and Finding Momentum

It's not going to make that much sense unless you are very good at knowing your miles per hour speed as you were walking on the city streets, but it's really based around you understanding within your own body how to find the facial side of human movement.

not the muscular side and this is a concept i'll be exploring a lot throughout this podcast is how do we find the rhythmic rubber band dance of every movement that we're doing so right here the ideal walking speed that you want to be around is one meter per second or 2.2 miles per hour now Even as someone who I focus on movement, movement specialists, I wouldn't know what that is.

So especially when I'm walking on the city street, I don't know if I've added 2.2 mile per hour speed. But here again, our focus is going to be, how do you find the fascial, momentous side of human movement, of walking?

And to demonstrate this, and just wanna share a little bit about my story of momentum. My story momentum goes back to New York City. New York City, if you've ever been there, is a walking city.

It's one of the walking capitals in the world. Incredible city, but a huge way of how people commute is actually through walking or they're just walking a significant distance just to get to the subway or to Pick up a taxi or whatever it may be.

So walking, walking city. Now, what I would find is that as I will be traveling, traveling around the world, teaching workshops on airplanes, sitting in hotels, my body would start to tighten up because I wasn't walking my normal pace.

I was probably doing easily. a thousand steps a day when I'm traveling in these other countries. So you take, normally, 20,000 steps per day, and then you put me into a 1000 steps.

My body would start to contract and essentially stiffen down. Total low back pain, my hips would be bothering me, I would just feel like even my digestion would get thrown off.

And I would just feel a little, right? As soon as I will come back to New York from the trip and I wouldn't get into my normal baseline day-to-day activity, which involved a lot of walking, my 20,000 steps.

And, I, will tell you, walk fast. Got it from my mama. I walk. Fast. What would happen is that I would start to walk very quickly. Streets of New York, I'm also a very efficient walker, which means I hate stop signs and red lights.

So I walk as soon as I see the light turning red, turn left, go down the street, back to the other side of the block, and I just weave my way to my destination by making turns and turns until I essentially got to destination.

I was able to keep every step going during my commute. And what would happen is I would start to feel that I was falling into this more and more effortlessness of movement, that every step was essentially a series of falls.

And I'd pick up so much momentum that if someone were to cut in front of me, cut me off, get in my way, I would barrel right into them. I was like, you better move because I have so much momentum behind me.

Now, I don't know if you've ever experienced that, but that to me is the true representation of movement efficiency falling into facial based movement.

Now walking by design is supposed to be extremely efficient. If you look at the evolution of bipedalism and really understanding why we walk the way that we walked is that it is a means of locomotion.

Because it is a means of locomotion, we cannot put a majority of our energy into that movement pattern, right? Because we have to focus on other things, make executive decisions.

We're dual tasking. There's a lot of other processes that are happening. from our energy stores, that large amount of our cannot go towards just the basis of ambulation or locomotion.

Balance and Single-Leg Stability

So that's an important, important takeaway for the listeners is that walking by design is not supposed to be burning a lot of calories. It's not suppose to something that is a high energy slash work output.

it is designed to momentous, fascial, effortless, efficient, and really rhythmic. You are dancing with every step that you take. That is important when we go back to finding that walking speed.

So we know that we're supposed to maintain a certain walking But let's say we start to notice a decline. What can we do? What is the then what? To this fascinating research study that walking speed is a sixth vital sign, what do we?

Well, the way that I look at this and the ways that use this research studies for my patients is that, I looked at the components of what actually allows you to walk fast.

Walking fast is not just picking your leg up faster and throwing it forward faster. That's not how you walk fast. You walk faster based off of three core components, and we are going to dive into those.

Your first one is balance. To walk fast, to walk the right way, walk efficiently, you have to be able to balance on one leg. Now the reason why you need to have balance is that part of what makes us walk faster is long steps.

The longer the step you want to take, the longer you will be required to be standing on one leg. So single leg stability balance is a critical component of walking speed.

Second one is range of motion, joint flexibility slash mobility. Makes sense, right? If we were to take a long step forward but we have arthritis in our big toe or limited ankle mobility or your pelvis is super tight, or your rib cage doesn't rotate, I mean, it makes sense that you're not going to be able to walk fast, right?

We have to have that flexibility. And this for sure is definitely demonstrated for any of the ladies, or I guess men too. If you are wearing heels, the higher the heel, this is part of secret behind stilettos, is stiltos are taking away your range of motion, your flexibility, as soon as you slide on a pair of stilettos, it's going to slow you down.

You cannot walk the same pace, the speed as without stiltos with the stilaos on, and that is directly correlated to what it does to your range of motion, your joint range.

Third, to move efficiently, quickly, fast, right? You have to have sufficient fascial flexibility. So it's a fascia story. And I know I keep saying that, so I want to just kind of set the tone for everyone as far as what fasciitis is.

Fascia is your connective tissue web and this connect tissue, web, your tendons, ligaments, retinaculum, periosteum, All of these different types of connective tissue fascia is a form of connected tissue is interconnecting every aspect of your body from the tips of toes to the top of head to tips your fingers.

Everything is connected and it acts like a rubber band. It has elasticity to this tissue and I truly would think of it like rubber bands. With every step we take you have to be able to essentially load and unload this rubber band.

So you are recoiling through every step that you're taking. If your fascia slash connective tissue is not rubber-bandy and it's kind of sticky and dehydrated or it has kinks in it, well you aren't going to be able to move the same.

You're not hydrated. It takes away your range of motion which is the second aspect I spoke about. So those are going to be your three components. If you are heading into a movement longevity lifestyle and one component of that is walking speed and you're saying, give me the formula to help me unlock walking.

Again, this is what it is. How's your balance? Focus on your bounce. We've got to train your single leg stability. Two, what is your joint range of motion?

I will go into exactly what joints need to be mobile to unlock walking speed. And three, you need focus on you fascial health. Is your fascia like a hydrated rubber band that is elastic and can recoil?

That's going to your formula. Okay, so we're gonna dive into the first one. That is balance or single legs stability, Now here's the story here, your ability to stand on one leg, a homo sapiens ability, to Stand on One Leg is extremely unique.

Primates are not able to, stand the same way that we do. They are quadrupedal beings, they are fast in a quadripetal pattern. Can primates push themselves upright?

Absolutely, but they do not have the foot or pelvis structure and alignment and the skeletal changes that are perfect for upright stance like a homo sapien.

So our feet and our pelvis and hips and facial lines allow us to stand upright and on one leg. So, single leg stability is critical to our ability to walk fast.

Now, when we think about balance, how good is your balance? How do we assess our balance. How we know if we have sufficient single-leg stability to work fast?

Well, here's where another research study comes in. Research has shown that if you cannot stand on one leg for 10 seconds, at least 10 second, that in itself is also a predictor of morbidity and mortality.

So when I work with patients, when i'm creating balance-based programming, I'm focusing on a 10 second balance per foot as the marker. And then when we go through balance exercises, you'll do 10 seconds on the right, 10 on seconds, on left, and then you keep repeating over, over over right left right.

Left always hitting that 10-second mark. Okay. Now, if you find that you are having a hard time balancing on your one leg for 10 seconds, there's a few things that can help you improve your balance.

And these are going to start with Sensory. How well do you feel your feet? We focused on episode 2 entirely on the neurosensory foot and understanding the different nerves that can be found in the bottom of your feets.

So first we have to understand, do even feel the ground? So disconnected from your feet because you've been in shoes, cushioned shoes for so many years.

Well, your first step to improve your balance is to get out of the cushion shoes. The supportive shoes to stimulate the nerves in the bottom of your foot.

to train on harder surfaces, to incorporate neboso, vibration platforms, and it's really understanding how to wake up that neurosensory foot that is by far going to be your first.

And for any of the listeners that may have some sort of neuropathy, a peripheral neuopathy this still applies to you. For those that have peripheral neuropathy, I always tell them you have to push into that sensory stimulation.

Do not put yourself in a bubble of continuous supportive shoes and never ever taking your shoes off. I personally do not practice out of fear-based medicine. I want to really unlock the neuroplasticity that lies within the human foot and the peripheral nervous system.

Get out of your shoes and socks. Wake up your feet so we can wake up our foundation and improve our balance. And we're going to be doing this every single day.

Second thing that you can do to improve your balance is to focus on really how does your foot maintain balance? Now the way that your food maintains balance, is through your toes.

Yes, through you toes! And now this is referred to as toe flexor strength. The way that we maintain balance is by your toes, the tips of your toe gripping into the ground.

So this anchoring effect of you toes is critical. Any of the listeners with bunions, hammer toes any sort of toe misalignment where you are shortening or deviating the natural position of toes I'm so sorry to say but it is going to compromise balance.

This is where I recommend toe spacers. Toe spacars are an incredible way to support natural toe alignment, which I see toe spacer as a balance tool. They are designed to help you improve your balance through natural to alignment.

The next layer to that is to supports the actual activation of the toes, this gripping of ground.

Joint Mobility for Faster Walking

There are a couple of exercises that reinforce this. The first one is called forward lean. I have many, many videos on my YouTube channel where I talk about and I demonstrate forward, lean forward.

Lean is an exercise where you are shifting your body forward essentially as the name describes a slight lean of your center of mass. And as you do that, you will activate your toe flexors into a grip.

It's really good to help people find what your toes actually do. and then you actually don't even have to cue the foot or the toes. When you do a forward lean, it is a reflex.

So I absolutely love forward leaning. Another one is called short foot. Short foot is an activation or a gripping of the ground, similar to the forward-lean, but really helping you tap into the intrinsic strength of your foot, And then honestly, the last part of that maintaining balance is to understand that balance, is not just a story of your feet.

It's also a Story of Your Center, your center of mass, Your Core, right? So our center Of Gravity, our Center of Stability is inner core or center, pelvic floor, and your foot muscles, your toes actually connect to your core.

So this foot activation that I was just describing unlocks deep abdominal muscle activation. That is truly how you maintain balance. That is demonstrated through a fascia line called the deep front fascial line.

Again, lots of demonstration of these videos on my YouTube, so make sure you definitely check those out. Foot to core connection, powerful. So again, this is how we're starting to think about how do we improve our balance?

How do bring that stimulation to the foot? how to we think of natural toe alignment? How do we think about toe strength and how do connect our toe's strength to our center of gravity or our Center of Balance?

That is going to be your first one that we are focusing on. Second one that I focused on was joint mobility. In order to walk fast, in order walk efficiently, accurately, the right way, you need to have joint ability in four areas.

These four are going to be your big toe, your ankle, and your T-spine. So we have to have very integrated joint mobility between those. And here's the thing, because your body is so integrated, if you take away range of motion in one of those four joints, it's going to lock up the other.

Pelvis is stiff, your t- spine is gonna lockup. you lose range of motion in your ankle, your pelvis locks. If your pelvic locks, you're T-spine locks so it can be this frustrating cycle of trying to maintain sufficient joint mobility.

but it kind of makes sense, right? In order to walk fast, we have to be able to take long steps. Now imagine someone, or even mimic it, as you're listening to this podcast, someone taking a long step, that leg is behind them, and as that is leg behind, they're extending the toe, your ankle's in this plantar flex position, you leg's behind you, which means your hip is extended, your pelvis is rotating open, or what's called lateral, and then your opposite shoulder and arm are rotating in the opposite direction, which means your T-spine, your rib cage, is rotation opposite to your pelvic.

And this counter rotation of every step that we're taking is critical to walking speed and longevity. Now, what I truly believe is happening is there is a pandemic of short steps.

And when we start to take short stops, we started to lock up our T-spine and our pelvis. It's like we need to like open it up. For any of the listeners here who love like a performance car, right?

And what you do with driving a Performance car and absolute side note, I absolutely love driving Performance cars, but you have a car. And imagine like constantly having to drive it on the city streets, and you're like, oh my gosh, it's so not what that Porsche is designed for.

It is not the City streets. Get it out on a freeway, get it the track and just open up it. That is the way that I want you to think about your body as well, your mobility.

Let's get out of the short stochastic steps and let's open it up. That's swing our arms. It's got that healthy ooey gooey T-spine rotation with the counter rotation of our pelvis.

So doing daily mobilization. to your T-spine to, your pelvis is critical. Making sure that you have optimal ankle range of motion is, critical looking at your big toe is.

And if you lose range emotion in any of those, it's going to compromise your ability to walk fast. Now, one aspect of this that I do want to hit has to do with your big toe.

And these are some of my favorite ways to support optimal walking speed from a joint mobility perspective that starts from the ground up. So here we go.

If you have arthritis in your Big Toe, maybe got a big old bunion that now has arthritis and you've compromised range of motion in Your Big toe, it will lock up everything above it.

So what do you do? You either have surgery, you could use a dancer's pad. I absolutely love dancers pad and on my YouTube channel, I have videos on how to use the dancer pad, so definitely check that out if you would like.

And of course there's a mobilization to the fascia on the bottom of your foot, your soleus, you're gastroc, right? All the way into your hip flexor. So we can do the mobilisation work through soft tissue release.

But one of my favorite, and it might come as a shock to you, is rocker based shoes. And I'm going to say it. I am going say the four letter word, Hoka.

I know, I now, but hokas are a great form of a rocker based shoe, which I recommend to my patients who have a limited or rigid big toe dorsiflexion that is locking up and creating a compensation in the rest of the way in which they're moving.

So your trade off here is, What is the downside of not being able to walk fast enough and compensating? Or if I could use a rocker based shoe that allows me to take sufficient step lengths and it allows to roll through the shoe versus through big toe, I might actually go for the Hoka, right?

So we want to just always weigh our risks and our benefits, okay? A couple other tips and tricks that you could use to maintain sufficient walking speed through a joint mobility, right?

You got to get that reciprocal arm motion going. Swinging arms. You really need to swing your arms, look at any of those mall walkers, totally picturing my mom here.

Fascial Health, Diet, and Wrap-Up

She's a very fast walker, as I said. So swing those arms to support swinging arms you can use walking poles. Those are great. You could use a product called SMOVEY.

SM-O-V-E. Why SMoVE? Are these weight bearing where there's a ball that rolls through it. And as it rolls, as you're swinging your arms, walking, the ball is hitting these ridges and it actually creates a vibration through for your hands.

So it's really, really interesting device. Great for chronic neurological conditions. Then of course you could use the Noboso sensory sticks. They're weighted and they're sensory.

Waking up our hands, waking up, our brain, and then using the weight as we walk. All right, so we're heading into our third aspect of truly unlocking walking speed.

And that is going to be your connective tissue. This rubber band that's found throughout your entire body. We need to load it and unload it, we need recoil it.

It is literally a rubberband. Now that fascia, there's three features of your fascial that I want you to focus on. The first one is hydration. Your fascia needs to stay hydrated.

Fascia stays hydrated through literally drinking water, but also through movement and through bodywork such as foam rolling, acupuncture, dry needling, things like that are really great for maintaining fascial hydration.

The other component of your fascia is it has to be rubber bandy. It has be ballistic. So in order to maintain ballistic fasci, we have to bring a little recoil, right?

So it's doing ballistic-based movements. Jumping rope is great. Doing little bounding, little hops, doing a movement and maybe have a pulse at the end of it.

That's all training the fascial elasticity the recoil component of your fascia. The third and final feature of you fascial that you want to make sure you focus on is called tension.

Tension is how your fascia creates stability. That is created through isometric contractions. So when you do, let's say, Pilates. Pilate is a great method for understanding and connecting to your myofascial system creating tension.

When we lift the pelvic floor, when we engage our transverse abdominals, if I lengthen my arms out to the side, I'm essentially doing a series of isometric contractions that create myofascial tension Other fun one, short foot exercise I mentioned earlier and forward lean are both designed to increase fascial tension.

So those are the characteristics of your fascia that we want to be focusing on. Now one last aspect that I do want share with you as we are wrapping up this episode is has to do with diet.

And this goes back to longevity. Now, when we have a diet that is high in glucose, blood sugar, elevated blood, sugar or elevated glucose. What that does is that allows your system to create what are called free radicals, AGEs, advanced glycation and bodies.

Essentially, they are the free radicles that happen from elevated sugar and that free stickiness or a kink in your fascia. So for those that have a chronic elevation in blood sugar, there's a lot of research demonstrating that it has a damaging effect on your connective tissue.

This is also why, let's say, a diabetic, and diabetic is obviously the best example of someone with a persistent increase in glucose or bloodsugar, is diabetics because of this increased prevalence of AGEs or free radicals in their system are uniquely susceptible to tendonitis, tendon ruptures.

This is why when they get an ulcer or a cut or wound, it takes a long time to heal. Part of that has to do with their connective tissue has these kinks in it.

and a lot of diabetics are uniquely susceptible to decreased fascial mobility. So their flexibility decreases as they have their diabetes longer and longer.

Definitely a correlation here. Watch your diet, watch your blood sugar if you are trying to focus on key fascia health as you're thinking about movement and longevity.

Let's put it all together here, walking speed, Predictor of longevity, right? We want to be able to maintain a sufficient walking speed. If you wanna focus on that 2.2 miles per hour, excellent.

if not, I want you to focus finding momentum. To find momentum, think about that performance car. You gotta get out on the freeway or the track and you gotta open it up.

Go to the mall, go to park, leave your purse, or leave backpack. I need you walk fast and I needed you do walk to find moment. Your three components of optimizing and unlocking walking speed is balance.

Can you maintain a single leg stability for at least 10 seconds? If you cannot, gave you some great tips and tricks to improve your balance? What is your joint mobility?

When we say joint, mobility, we're talking about big toe, ankle, pelvis, and T spine. You got to unlock all of those. And then third, your facial elasticity and your fascial health.

I really, really hope that you incorporate these different tips and tricks, and they are things that they don't have to create a large shift in your lifestyle.

Just sprinkle them in where you can so that can really hit that movement longevity. So before we wrap up, we got another Dr. Omli's footnotes here. This is going to be a quote that ties in the theme for today.

Here we go. We are born to move and bipedalism or walking is our greatest gift, a gift that must be nurtured to last a lifetime. Thank you all so much.

I hope you enjoyed and I'll see you another episode.