The Future of Performance Starts with the Feet, Fascia & Fundamentals Transcript

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Introduction to Feet, Fascia, and Performance

Our opponent is gravity. Like, we have to overcome. That directionality is very, very unique. How do you teach an athlete to own directionally? So the body can self-organize.

I highly, highly encourage people to listen to this again because every so many minutes was this incredible mic drop moment. Hello and welcome to another episode of Root to Rise.

My name is Dr. Amelie Spickle, your host. And today we have what I know is going to be a very exciting conversation because it is gonna be around three of my favorite topics, feet, fascia, and performance.

and my guest is a colleague turned very good friend that I've been speaking next to or alongside for probably over a decade. His name Bill Parisi. Now, before we bring them on, I do want to share a little bit about this incredible gentleman.

So, Bill Parisi, he is a legendary coach, entrepreneur, and founder of the Parise Speed School, which is one of most influential performance training systems in the world.

In addition, He is the founder the FASHA Training Academy and we'll be diving into that soon. Bill works on bridging science, coaching and human behavior with a focus on fascia, movement quality and long-term athletic development.

His mission is simple. It is to build better movers, stronger minds and more durable humans. In this episode we will explore the future of athletic performance, the role of fascia in human potential and what it truly means to build athletic power from the ground up.

So of course we're talking about the feet, nervous system and foundations in the human movement. Thank you Bill for being on the show and welcome. My pleasure, Emily.

It's an honor to be here and I'm so excited to, uh, be working with you now more closely. I remember when we first met where you were one of the pioneers to get involved with the NFL teams.

Uh, when I was running their, their educational events and programs, you are a big part of that. And I know you continue to to. Yeah, thank you. And this is clearly long overdue and working together.

I just remember being next to each other at the Perform Better Summit and I was like, there's got to be some synergy there and of course there is.

Bill Parisiu2019s Athletic Background and Javelin Origins

But when we did a webinar a few months ago, a couple of weeks ago and that is when I first started to get a little bit deeper lens or perspective of how you look at feet and fascia, which is totally speaking my language and we were saying a lot of very similar things but in slightly different angles.

So from that I learned your story about starting with Javelin and how you were introduced into a different lens of looking at athletic power and then of course fascia.

Can you share a little bit about that for the listeners so they can get a understanding of your perspective? Sure, you know, started out as an undersized, slow high school athlete, played football, coach said go off for track, went off

the track.

The coach tried every event, tried all the events, took a liking to the javelin throw, was pretty good at it. A lot of biomechanics will use the Javelins throw as example to express human movement and force production and really how to manage ground reaction forces actually to transfer Through your whole body right from the ground all the way through your hand to hand speed and I really dove into that and wind up being a top 10 thrower in the country.

My senior went on to earn a full scholarship in that in The Javelin believe it or not. And then traveled the the world competing and learning from some of the best athletes in world and that was really how I got introduced to you know functional training I or I should say Moving away from traditional training and this was in the eighties believe it or not so I've been on this kind of you know approach for a very very long time.

Training the fashion system, but I didn't know it was fashion back then right. I just thought of training for athleticism. and the expression of force and how to express force in a way that is gonna optimize performance and human movement or longevity.

So now there's so many things that are coming out due to the ultrasound equipment, the advancements in technology that really allow us to understand the human body and to absorb force, and then ultimately return force.

And express that force different ways. It really comes down to management of forces, you know, management of gravity and great reaction forces and how we do that as everyday people, how do we that is athletes is critical.

And I look at that through more of a Biotensegrity lens. Okay, I love that. Can you define that word for the listeners? So it's in integrity. It's a combination of your compression elements, compression, elements which are the steel bars held together is tensile tension elements.

Which are more of the cables, right? So that's its integrity model. So it's compression. held together with tension or the compression or metal struts with the tension.

Now, that concept of tensegrity is very energy efficient, meaning that it's a stable but flexible object that allows movement but also has this stability.

So it's kind of moving away from the traditional Newtonian approach where you think of stacking bricks on top of one another and you're building this column.

Well, that's stable but not flexible, right? And if you build a bridge in California like that, well, the first earthquake, they're going to collapse, right?

They have to have an element of movement and have some type of flexibility. And the human body is built that way. Dr. Steven Levin really brought that to the forefront.

So Tensegrity was around for a while. And the concepts were created many years ago. But when Dr. Levin, who's an orthopedic spine surgeon, was in the Natural Museum of History in Washington, D. C.

Biotensegrity and Managing Force Through the Body

, looking at this great big dinosaur, and he did the math in terms of how heavy the bones were and the skull and neck, the vertebrae, then looked at the muscle tissue on that dinosaur and it didn't add up.

The skeleton didn' have enough muscle tissue to hold up the head and neck. Kind of like when you use the Newtonian viewpoint, building a brick column on an angle, right?

Like it would collapse unless it was rooted into the ground and had steel rebar to reinforce and all this. It would collapsed. Well, like the dinosaur didn't have that.

And then he walked outside and he was like puzzled and was doing the math and did all these calculations, went back and forth to the museum. Then he noticed this tensegrity structure.

outside, and he coined the word biotensegrity. So the body is a series of compression elements, the skeletal system, held together with tensile elements.

You know, ligaments, tendons, fascia, tissues, these tensil elements that allow us to absorb force and return force in a holistic, full-body fashion. And whenever there is issue or there's a change in balance in any one of those areas, obviously it could lead to a chance throughout the entire structure.

So that's how I look at the human body, how we look human performance, and it starts at feet, right? Because that is where most issues occur. with the feet being bound up and not having that ability to absorb force and be that really nice shock absorbing system that can allow force to transfer smoothly up the kinetic chain.

So yeah, that's my long-winded answer, or I should say short-witted answer for a very complex subject. But I love that. And I loved the way that you word it and how you refer to this Dr.

Levin and his perspective. So, just so listeners can hear how YOU view this, how do you then refer TO GRAVITY? And, I know you've said some key words in there, such as force and impact transfer, etc.

But, do YOU talk to your athletes about gravity? Gravity is our opponent, right? We need to punch gravity in the face. And what does that mean? From an athletic standpoint, we're always trying to overcome gravity to be athletic and to fast and explosive.

So when you think of a martial artist, and this is a really great example, You think of someone like Bruce Lee, right? The two-inch punch. And you could call that the amount of force he was able to create in two inches.

In the end, the force this 165-pound man can generate. I always say I would rather get punched in the chest by a guy that can bench press 600 pounds, opposed to a man like me.

Because a person like you would kill me, a bench-presser probably wouldn't. So it's a different type of force production. And it is a combination of utilizing the connective tissue, the fascia system, and its neurology to create high levels of speed and rate of forced production, followed by massive co-contractions that create pulsing stiffness.

That is the essence of athleticism. The essence is is the ability to overcome ground reaction forces. So as a martial art athlete, and when you think about martial arts, there's many forms of martial artists.

There's Brazilian Jiu Jitsu, Taekwondo, you know, Hikido, all different types of different arts that athletes study. Let's use Taekwondo as an example and simple punching and kicking.

Well, these athletes, they're not necessarily lifting a lot of weights, right? But they can generate massive amounts of force. And their opponent is a bag or an opponent in the competition.

Their ability to generate these forces on a more of a horizontal you know, plane is tremendous. We wanna do the same thing. Our opponent is gravity. Like we have to overcome gravity and managing and developing these skills in terms how to harness that energy through training the fascia, the neurology of the fescia is how I look at gravity, and how will I wanna overcome it.

Because as an athlete moves on the athletic field, it comes down to a few things. how fast we can generate force, how much force can we generate in that short period of time, and in what direction are we applying that?

Because that's going to determine where and how we move. Yeah, I like the directionality of it. So it's timing was the first one, right? Kind of that rate, volume, theoretically, you could say, and then direction ality.

I think I absolutely love that.

Gravity, Directionality, and Speed Mechanics

And that's the side of your heavy on the site of the performance. I'm seeing breakdown of performance injuries and compensations that I am trying to get them better so I can pass them back over to you.

But that directionality is very, very unique. Can you just share a little bit more about that as far as directionally and how do you teach an athlete to own direction.

Yeah, it's a great question. And it is no different than a martial artist learning different techniques in punching and blocking and kicking and whatnot.

So as we move in space, on the athletic field, whether it be a court or field or whatnot, or even track, you know, there's phases to movement, right? We really break them down to two macro phases, two macrophases of movement is basically linear speed and multi-directional speed, so there are two micro phases.

Now, underneath those phases we break down further, in linear speeds there is acceleration and then there's maximum velocity sprinting. So when we run in a linear straight ahead fashion, we accelerate and we break that down to the next phase, which is initial acceleration, transitional acceleration.

And then It's you know, then going into maximum speed. So there are the force angles going in to the ground. The amount of time we spend on the Ground when we're accelerating, it's more horizontal in nature, the Force angles.

And as we come out of acceleration, The Force Angles going Into the Grounds as We hit maximum Speed are more vertical going In to The Ground. So the direction of force is different compared to accelerating to running at top speed.

The amount of time we spend on the ground, the force application phase, which we call the expression of Force, is difference as well when we accelerate compared running a top-speed.

So that's linear speed and there's body positions and angles we talk about, training methodologies we talked about to enhance the ability to accelerate which is really critical in all sports.

And then, obviously, running at maximum velocity. The other component, multidirectional speed, we break down to four subcategories. the first category is deceleration.

Deceleration training, understanding how to slow down. Like, would you get in your car today if it didn't have any brakes? No, right? Would you on a plane if the pilot didn t know how So why would we coach our athletes to go out there and play sport if they never really understood how to decelerate?

Deceleration is a skill. And when you practice and train that the way we do, you're not only going to enhance the skill of deceleration, but you've got to really help develop the neurology but also enhance tendons and ligament strength.

There's been studies that show these ligaments actually grow in volume and in size when load them correctly. So that's one phase of our, and there's body angles and how we accept forces from gravity, ground reaction forces in decel.

Then we have change of direction, which is a pre-planned movement, a planned approach to practicing deceleration, then re-accelerating. And we know exactly what that move is going to be.

We're rehearsing it. we're building like motor engrams or motor skill, like building this motor vocabulary. For a lack of better words, we are learning this foundational movement and building a vocabulary of motor skills.

So that's the second phase of four. The third phase is curvilinear running, being able to run on curves. So the expression of force is different when we run curves, obviously it's more of an angular position and depending on the feet, you know, will be either inverted or inverted and you have forces going through the foot at speed.

with these different foot positions, we need to experience that and express those forces at those angles, at speed to prepare the tissues and to be prepared to create those ground reaction forces on running on curse.

And then last but not least is our agility, our multi-directional reactionary training where now it's more managing chaos and putting those first three components together So the body does that naturally and the buddy begins to self-organize in terms of without mental thought and that's called movement literacy.

So we take this foundational movement system that we actually put together over the last 35 years of linear speed, multidirectional speed. Build a foundation of vocabulary movements or motor vocabulary.

have that foundation and then bring it into a chaotic environment, a non-predictable environment and now have the athlete train. So we hopefully retain some of that vocabulary so it now becomes second nature.

Just like learning a language, right? When you learn how to speak a new language you're totally locked in. You're learning vocabulary, you learning words.

Then after you are good at it, boom, it flows. You know, and listen, if you want to become a better speaker, a writer, you're always working on vocabulary, always on words, working how to use words.

And now you become great writer and speaker and you are highly literate. You are learning new things, learning ways to express yourself, philosophy, history, whatever it may be.

Movement is the same way. We take that same paradigm in movement that we do in the human language. I love that. And when someone is just speaking my language, it always gives me goosebumps when you were talking about it.

It's like, oh my God, where's my pen and paper? I need to take notes on this. So for the listeners, I would rewind it and listen to that again, because that is, to me, one of the biggest demonstrations that you know what the bleep you're talking.

About and that's why you are the founder and really this name and face behind speed. and athletics, it's so, oh my gosh, Bill, I loved that. I'm an academic nerd, and I love that, so this is just a- I was just gonna say the goal is always to make it simple, right?

The goal for me is to always make complex subjects simple. And hopefully I do that. Yeah, but it makes total sense. But there's also a methodology behind it where it's not just, well, to run fast, you just practice running fast.

Right? And just do the 100 meter over and over. There's obviously the technicality in it. I'm sure you've worked with some high level track athletes as well in your history to get that speed.

But I'm curious, just on my own personal side, is how did you get involved with the Combine then and the NFL? Yeah, it's interesting. I mean, goes back to it goes way back in 1992. It's funny because when I graduated college, I was an All-American and I went to a lot of different seminars and educational events.

When I was in college, going to strength and conditioning seminars around the world, literally, I went the Finland for a summer and I competed there. I put fundraisers together.

20 years old, traveling the word, learning about human performance in 1987, 1989. And I'm still on that tangent today. So I don't know. You know, it's just what I do, right?

For the last 40 coming up on 40 years now, just attacking. So anyway, I did that. I went to a local seminar here in

New Jersey.

Combine Work, NFL Connections, and Coaching Influence

The head strength coach of the New York Giants, they just won the Super Bowl, was giving a seminar and he flew in this guy, Angel Spazov, from Bulgaria, who was an Olympic lifting coach for the Bulgarians.

They won all the Olympic medals for Olympic lifts back in the 80s. He probably knew how to use drugs better than anybody else, but they did have a lot of good techniques.

So I got to the seminar, sat in front, and I was 21 years old. Asking questions and then the head strength coach of the Giants, you know, we started talking He tell me about yourself.

What's going on and I told him I just got back from Finland I Just got off an all-american season throwing the javelin. I you I think my best was like to 238 or something like that.

Oh, and it was really impressive I want you to come down and train Phil Simms on on those medicine ball drills. You'll learn so my first client I was 21 was Super Bowl MVP Phil Sims.

Yeah, yeah in 1989 and that's That catapulted me to continue this quest. And then from there, I actually moved down to Florida, trained with Tom Puskis, who was the American record holder, and then was a strength coach for the track team at Florida.

Then moved back up here and started the business and really started to continuing to unpack. Having that relationship with Johnny Parker and starting my business, They have this event every year, the strength coaches do, where they recognize each other at the combine.

They award each and it got to a point in the middle 2000s, they asked me to come and help out and get involved and take it to the next level. And I did that for 13 years and that's where I got you involved.

You came to the event and I, you know, put together a great banquet for them. I put the other education, I worked at Gatorade, hired me to put to together education for then and bring in different speakers.

And it was a good run. Now I handed it back to The Strength Coaches and they made it an official non-profit. organization, you know, which is great, run by them with an executive board.

My role, I kinda got them together. When I first got involved with those guys back in 2010, no one talked to one another. like they don't like really standoffish.

And we would get at the combine, I would have sponsors come in, we'd buy a great dinner for everyone, and I'd go around the room and have everybody say who they are, what their goals are and start to break down those walls.

It was a good opportunity to do that. That's how I got involved. I got. I love it. So to switch gears a little bit, I know you're the founder of the fascia training academy.

When did you find this? We all know, you love fasci. But what is your goal behind the Fascia Training Academy? And kind of what do you see is like the future of that?

Yeah I mean my my discovery of fascia really is when my um my young my oldest son started playing competitive basketball um you know and he kind of made this high level team and I saw these athletes competing at 14 years old dunking and and i noticed none of them had a lot of muscle tissue on them and that was like It started to come together that I started doing more research and then I realized I always knew what you know knew about fascia.

But that was well over 10 years ago and I start to really really dive in and to the point where I network I was on the board of directors of the fashion research society for 3 years.

Yeah, I built really close relationships with Robert Schleip and Wilkie and some of these high-level scientists from Germany and Italy and all over the world, you know, was able to dive in.

But what got me involved in my mission for Fascia Training Academy is really to help people understand how to optimize performance and not just performance on the athletic field, but general health and fitness.

There's so many injuries So much people going through so much pain and so watch of it maps back to not managing your collagenous network, you know not that engine it correctly and and just not understanding movement patterns, I'm just talking just general movement hygiene not understand the.

Fascia Training Academy and the Injury Problem

the power of isometric contractions and what it does to fascia and the ground substance and and really just a mission and then the injury epidemic in athletics you know it's a lot of it is fascial driven and not managing because fascist highly neurological has six times more eight or the proprioceptors than muscle so when you kind of don't manage it correctly.

Neurology is off and your ability to safeguard and co-contract and self-organize on a chaotic athletic field that you need to do. Your system's just not wired right.

It's not connected. You're wires are crossed and you're system is not firing and now you've got this collagenous tissue that might be overdeveloped in areas because you're doing similar movement patterns.

You're living in the sagittal plane in The Weight Room, you doing squat, deadlifts, step-ups, lunges, all the Sagittale Plane stuff and not only the wiring is so sagitally plane-driven, but now the actual physiology the the college and network now becomes stature plane driven in your bodies is not able to handle the chaotic moves you have to make on the athletic field so that is my mission to get education out there to to the masses.

Got it, love it. You mentioned one of my favorite kind of concepts is isometrics. I love, I was a former gymnast, so I'm all about isometric. Just talk about that.

Like what is the power behind iso-metrics? How do you use isome-trix, both from this injury prevention and then athletically? Yeah, like I have really done a deep dive into isometrics and I just coined a word called the yo, you know, the Yo method, right?

Okay. Yeah. The Yo Method. I, just, I coined that recently. And I don't know if anybody, came up with it, but I'm starting to use it. And the yo method is basically the three forms of isometrics that we use in our training.

One, it's yielding isometric, yieldings, overcoming gravitational force, meaning that if I have a bar on my back, like say heavy weight, and I'm going to come down to like a three quarter squat and just hold that.

I'm isometrically just sticking that thing, but I got gravity pulling me down. I am yielding. And that is kind of creating an activation for the tensegrity structure of the body to kind realign, and it's almost like a real alignment in a way, in lot of ways.

Your body has to co-contract, your body have to stabilize, so you have all this co-contractions happening to kind of realign the yielding. And that tissue is getting pressurized and it's getting challenged in a way that's gonna make it fire and quote unquote co contract, right?

That's yielded. Uh, overcoming isometrics is if now I am now, um, I have the bar on my back and I go into the squat rack and have pins and i'm pressing up against the ball, trying to push it, but it's it.

It's non movable. I can't move it right. So now that's going to be more focused now. You know all these concepts they overlap so it's not just like do this technique you only get this you get all of them, but there's more emphasis on different areas that one is more about neural drive and and more motor unit recruitment, you know through different

phases because when you when to do that in squat you're fired into that rack.

And you're not firing the same amount of force the entire set of 10 seconds or whatnot. You probably have force, but maybe it's a little less, then it is a bit more.

But with the weight on your back, you've got to maintain it or you are going to fall, right? There are differences, that's more neural drive and that is more of a neurology type reset, but there's still benefits to the tensegrity model.

So that's the overcoming. And then there is oscillatory isometrics where we're in a, you know, most likely a yielding isometric phase But the weight is obviously not as heavy, or it's a different movement where gravity is causing the isometric.

We're not applying force, we're kind of accepting the force or managing that gravitational force. But then we are isometrically contracting, but we have little mini-oscillating movements.

It's just a little mini oscillation. And that's like a pump to help manage the ground substance and help create micro shearing of the fascia layers to allow us to facilitate the secretion of hyaluronin and allow that to come and helps us slide and glide.

And there's a lot of research coming out on this. I'm excited to help push it out there and pioneer these concepts in terms of the quote unquote, yo method.

Yeah, no, I love that. I'm a huge proponent of isometrics. And that was, as I had mentioned, a big part of how I trained. When I do it personally, when I lift, at the end of the sets, is that where you like to think of Isometics?

Or do you do them on their own? Do you it before, before a heavy rep?

The Yo Method and the Power of Isometrics

I like them before because of stimulation that you get. Like waking it up. Yeah, I mean, because you're going to get so much, you know, motor unit recruitment, and it's such a great stem.

But I don't, there's lots of different benefits to isometrics, like tendon health is a huge benefit. Keith Barr has done a ton of research on isometric training.

The Germans have done you know, help tendons recover and heal because of the issues that we get with tendens and when there's the shearing forces that go through tendence and how they need to have this stress put upon them in a way that's going to realign the fibers.

So the isometrics in terms of tendon health plays a big role because when a tendon has an injury, and we might not even know the injury. We might have not have symptoms yet, but a tendons like a rope.

And if you just take one strand of that rope and it breaks and a few more break, you might feel pain, But it's getting weaker. To a point where more breaks, now you start to feel some pain.

If you ignore doing things and eventually the tendon is going to rupture, right? So what happens when you have that stress on the tendon, the body wants to repair it or tries to prepare it, but those fibers now are repaired, and but they're not aligned.

They're kind of more like felt, they like carpeting. they are really stiff and they don't have a lot of mobility and that's where pain comes in and when a tendon isn't recovering correctly, It can rupture, but when you put isometrics through that injured tendon that's repairing, the mechanical transduction, it's going to now realign those fibers to be more of a lattice type angles.

where they have more spring to them. So think of a lattice fence. That's how the fibers align in a tendon, healthy

tendons. The fibers aligned in that type of fashion, opposed to felt, where the fibres are all crossing one another and there's no flexibility.

Your ligaments are more like felt. You tendens need to be more really strong rubber bands. Understanding isometrics play a big role to helping managing tendon health.

Yeah, love it. Love it, I speak a lot kind of on that injury side where I will do growth factors and regenerative medicine essentially to get that tendon in a more integrated state and then once they've done the remodeling and the whole process that takes three months, then I refer them for programs such as what you're describing as adding the isometrics and mechanical load now that they have these new collagen fibers to get them into that lattice pattern.

So I absolutely love this for the listeners to see, okay, well where do you take the athlete or the patient from the collagen deformation remoteling to Right, right.

And it's so important to, you know, to remodel the collagen the right way and stressing it the way through the different forms of mechanical, through isometrics that will stimulate mechanical transduction, which is obviously mechanical stress that causes signal to the fibroblast cells to lay down collagen.

But with the right types of stress, it's going to lay down collagen in the patterns. And that's why we don't put people in casts anymore, right? Because when you get a cast, what happens?

All the collagen gets laid down. It's like cement. Your body gets really stiff, and now your sensory system is all off. You lose all that proprioception, you're just a mess.

That's disastrous. People get moving right away after an injury. We don' want that to take place. Yep, totally. Totally. And one of the big injuries is like an ankle sprain is we move patients or athletes very quickly after an ankles sprains.

I've had some patients have deleterious effects because they've been like casted after ankle spring because there in a different country or something where the models different.

So yeah, absolutely love it. so I do want to transfer to our last topic, which is one that's near and dear to my heart and that is the feet. So tell us a little bit about your thoughts around the feet, how feet are so important to athleticism and how you incorporate this with your athletes.

Yeah, I mean, that's what the relationship with you and your organization, all your phenomenal tools. I have them all. You're so dialed into the feet.

But, you know, for us, we try to keep it really simple and keep basic. First, We're always going to have our athletes start off barefoot. Right. It's just basic and we're going do, depending on their training age and how long they've been training either with us or just in general like assess their feet and and see what they look like and can they splay their feed and we're not going to you know do the whole warm-up maybe barefoot we might do.

The first five minutes bare foot and as you progress and you build that we then will eventually do And then we go into training and depending on the training that day, we might stay barefoot or we put our shoes on depending upon the athlete.

So that's the first thing we do. And we really focus on doing and training bare foot in that warm up. Our warm-up is so much more than a warmup. It's our active dynamic warm-up.

We're really on 3.0 right now. But it's really movement prep, it is work capacity. It is all these things in the first 15 to 20 minutes of our training.

And it takes 15-20 minutes. So we do all of these thing, but we also then will work that movement prepping and

whatnot on different types of surfaces.

So we might be on an AirDex pad with a couple things and then we may be onto the turf and maybe onto a track surface and we'll intermix and create artificial surfaces where we will do different activities where that response is different.

Tendon Remodeling, Mechanical Load, and Recovery

The body has to now respond to that different ground reaction force, and what's it giving back? Because when the surface is softer, you're not gonna get as much ground-reaction force back through the system, And the systems gonna respond in a different way.

And this is a big conundrum in the NFL, where like MetLife Stadium here in New Jersey, there's a lot of injuries that occur at Met Life, Here's my, you know, assumption or here's, my viewpoint on, on this concept of athletes getting injured at MetLife.

Well, if you're an NFL athlete, You're a finely tuned race car, like you, your machine. And if your practicing on a certain type of surface, a, certain softness or hardness all week long and play most of your games there, and then you come to a field that has, it's much softer.

Well, it's like going to play a game on the beach. There's gonna be different risk factors with these athletes that are super high level generating massive amounts of force.

If their body isn't really ready for it, I'm not saying that's the only factor, there's probably absolutely pre-existing conditions, but maybe that softness was something that just put it over the edge for that to occur.

So, I mean, when we talk about feet, we talked about being barefoot, looking at different surfaces, obviously we want to strengthen all planes of motion of the foot.

We want, you know, to obviously get the dorsiflexion and the anterior tip strong. Do things at a bent knee, the soleus, because we really want hit the soles.

Because that acceleration, when we accelerate, you're at a bent knee. So we know the gastroc is shortened with a bend knee, so we don't get much out of the Gastroc compared to the soleus.

We got to make sure we're hitting the entire 360 of lower shank from a training perspective and being barefoot and on different surfaces and moving in different directions.

And doing different resistance strategies and Omni-Planar is how we address defeat. And it's a big part of what we do. Yeah. I know obviously the foot is the only contact point between the body and the ground.

So I knew you're going to train it. How did the athletes respond to being barefoot? Just the idea of bare foot training? How do they respond? Yeah, I mean, great question.

At first they were like they're a little confused. It's kind of weird. But then after they get into it, the first session, they like, oh, wow, this feels I can see this.

Feels good. And then they ultimately feel like better without shoes. You know, it's funny. When you start to train, you started to do things without choose.

you you get it feels better and it really it's interesting because i've been doing the barefoot stuff for a little bit now obviously and you know my walking i i do you part of things i I do my active warm-up and all but i love doing uphill stuff so i have a a treadmill i put it on 15 20 percent and i loved doing climbs right climbs are just great And I do it barefoot.

And it's so great. I'll do in different angles and whatnot, meaning I will do sideways walks and backwards on the treadmill. So I'm getting all 360 on that along with our active warm-up.

But I like sometimes just digging in and just going on a super high incline and getting a lot of activation.

Feet, Barefoot Training, and Surface Variation

Yeah, I love that. What was interesting is when, and I've been talking about barefoot for over a decade now and trying to get athletes bare foot, but I remember when I started reading some of the initial benefits of bare-foot research for athletes and they would get these athletes, get them bare feet, there would always be this little paragraph at the end that was all of athletes that were the subjects wanted to continue doing barefeet after the study.

I always just thought it was so funny. Yeah. And it really, to me, and I don't have any scientific evidence, you might, but I feel it also realigns the whole biotin-segrity structure.

Totally. Yeah, like when you're barefoot, I think it just kind of, it's almost another way to align the body. It's another to kind reset your system. And its a game changer.

Like it a complete, And you got to start off slow. You can't all of a sudden go run two miles bare foot, or you can do a full walk out bare-foot. Start off with five minutes.

of your one barefoot. It's just not up there. And then gradually build up. Yeah. Absolutely. Whenever I speak at like a strength conference, I'm like, whatever I am going to tell you, just put in the first 15 minutes of what you're doing with the athletes, then you don't have to.

I understand these are multimillion dollar assets that we are not trying to get injured. So put it in a movement prep. We're good. I love it. Well, I've enjoyed this so much, Bill.

I do want to ask one last question as far as where you see the future of athletic performance. Maybe it ties into fascia, maybe feet, but where's the feature that you believe or that where do you want it to go?

Yeah, I feel there's a big miss in athletic performance training, specifically, really, even massively at the high school levels, and I think at college and some professional levels.

Really understanding the collagenous network and how it ties not only to the feet, but the entire system, understanding co-contractions, of dynamic systems theory and what that means and training from a constraints led approach.

You know, I tell the story when I was down in Oracle, Arizona. I visited the Biosphere project. huge three-acre greenhouse where these eight scientists were living for two years without any outside air.

And they tried to see if they could live out of space, and they brought in animals and plants and trees and created a rainforest indoors and an ocean, indoor ocean and all these environments inside this three acre greenhouse in Oracle, Arizona.

I visited the place and obviously I looked at the history and I noticed and learned that When these trees grew, this was back in the late 80s, they did this project, 89, 90. These trees grow to like 30 feet, 40 feet.

The ceiling was very high. And after a while the trees got to a certain height and then tipped over because the tree did not create any stress wood because there was no wind inside this greenhouse.

Without that wind, without that unpredictable stress, the tress couldn't really create the appropriate strength it needed to survive. Humans are more like plants than machines.

We have to change the paradigm that we're not training this machine with lever arms and fulcrums and axis points. It's not how it works. You know, it's that body works especially specifically on the athletic field, but just in general.

And so we need unpredictable stress. The body needs to Learn from this unpredictable stress so the body can self organize and the party is very adaptable organism.

Will we apply the stresses in unpredictable environments like being barefoot or going on different services were naturally. teaching the system from the ground up so it's called the bottoms up approach and what i'm describing here is you know dynamic systems theory training which is a theory of of using different types of constraints to have the body learn skill through not necessarily repetition but through kind of Well, I guess repetition, but through trial and error and not a whole lot of conscious mental thought, let the body just figure it out.

The Future of Athletic Performance and Dynamic Systems

And I believe the fascia plays a very big role in this area to send signals to muscles to contract based on threat. And what do I mean by this? I think bird flocks and schools of fish, when you study schools fish and how birds flock together.

And it's amazing how you can see a flock of a hundred birds, 500, a thousand birds all flying and in sequence without crashing into one another. One of the reasons why they fly and flock is to avoid a threat, avoid to be eaten by a bigger bird or school fish.

But these birds have this sensory mechanism. They don't have one direct leader. It's not like the brain telling the body do this, do that. The birds are kind of signaled by this overall environment and they all fly together.

I believe our human body, the fascia connects the cells, and the contraction of the cell are like the birds in a flock. And when we sense a threat, when the foot hits a divot in the ground, where we're trying to change direction, The untrained athlete, or the improperly trained athlete is going to blow out his ACL.

The properly trained has already experienced that type of threat through different types of dynamic systems training where that local contraction is going to happen without even coming up to the spinal cord.

From the neurology within the fascia is like these birds flying. Every cell is a bird. It senses the threat and they all co-contract to create stability in that joint so we don't blow it out.

So that fascia plays a role, the research is catching up. I had a really detailed conversation with Robert Schleip, he's a top German scientist. And I ran this by him.

He said, absolutely, Bill, that is a very strong theory. That's where we're going, where the body can facilitate co-contractions through fascial, through protecting that joint in that threatening situation.

So anyway, I want to get that information out there. Yeah, no. I love that and I can tell and you are a wealth of knowledge. I highly, highly encourage people to listen to this again because every so many minutes was this incredible like mic drop moment where I absolutely, absolutely loved it.

So where do people learn more about your work, what you do personally and professionally? Of course, the Fashion Training Academy, PreC Speed School. Where's the best way to go?

Yeah, I mean, all those, we have our Anatomy of Speed course. It goes over a lot of our movements, everything I described from a movement perspective.

You can find that at Anatomyspeed.com. Obviously, FasciaTrainingAcademy. Com is where all of FASCIA stuff lives. you know, our Parisi Speed School, if anybody's interested in an affiliate.

So we sell not only certifications and education, but we also sell affiliates where people actually have access and

are part of the Parise family to be a Parisy Speed school or use our content and come to our annual summits and, you now, be part that Italian family that we have, which we invite all types of people, any race, We all like to eat though.

True Italian. I absolutely love that. Well, thank you so much for your time, Bill. It's been a pleasure. My pleasure and thank everyone. That was definitely an information packed episode.

Do listen back and there were some key key takeaways as far as gravity, isometrics, fascia, feet, mechanical load. I absolutely enjoyed it. So thank you for tuning in and I will see you on another episode soon.