Flat Feet Aren’t All the Same: What Your Foot Type Really Means Transcript

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Introduction to Flat Feet

Too much stability is possible and it's not a good thing. Flat feet causing low back pain. You cannot build an arch through exercises in that type of flat foot.

you need to strengthen your foot and the goal of strengthening the foot is not to see a visible shift in the arch. That would also be a huge takeaway.

I can actually identify and tell which children have ligament laxity by around two to three years old. Hello and welcome to another episode of Root to Rise.

My name is Dr. Emily Spickle, your host, and today we are going down, all the way down to your feet. And we're talking about different types of feet, specifically flat feet.

Now what does it mean when you have a flat foot and what are the different types of flatfeet? What do you do? Can you reverse them? How do your strengthen the feet?

And essentially how does a Flatfoot affect movement, strength, and of course long Jeopardy! This is going to be a great topic. It is one that I get asked about all the time.

And yes, we're going talk about children as well and how flat feet can affect our children. So the way that i want to kick this off and set the tone is that not all flatfeet are the same.

And actually, we shouldn't even be calling them flat feet because it doesn't tell you anything. We want to get very specific about our foot type, the different types of instability we can see in the feet, and how does it affect the chain upward.

So again, not all flat feet are created equal and it really doesn't even need to be called a flat foot. The word that we should be using when it relates to our foot and a sense of a instability or an unlocking of the foot is another word you may be familiar with and that is pronation.

Now pronations, I'm sure you've heard this on the internet or Instagram. Pronation is not a bad thing, and it's not bad a thing. But when you overly pronate, that's what we're talking about.

Now, if you have no idea what I am talking pro now what, right? I going to set the tone with what that pronation, is what's the opposite movement. How are our feet supposed to move?

So when we understand a deviation away from that, today we are talking specifically on pro-nation side, what does that mean?

Pronation vs. Supination Basics

So let's get started with the two key words that relate to the foot and foot movements, pronation and supination. If you are not driving, you're at home, or you were somewhere where you can stand up, I would invite you to stand, of course take off your shoes and socks, and you will stand with your feet shoulder width apart.

And as you stand there with you feet, shoulder-width apart, i want you exaggerate and roll to outside of your foot. And then let's exaggerate and roll to the inside of the foot.

And, then you'll go back to outside and to inside. If you're driving, you could almost visualize that you are doing this. Every time you move to out side of foot, I want you to hold there for a moment, we're going to call that position

supination.

Then let us roll inside, imagine a foot collapsing and rolling towards inside that we're going to call pronation. And then this movement back and forth from supination to pronations is what happens in your foot with every single step you take.

Now have a seat. If you stood up, what I'm going to do is put some meaning behind these words. Supination, which is again rolling to the outside of the foot, creates a simultaneous lifting of arch.

So as you roll to that outside to foot your arch lifts and essentially your foot becomes stable. So supination is going to equate with higher arch equal stable foot.

That's what I just want you to think about that right now. As we roll to the inside of our foot, you are essentially dropping the arch and creating an unstable foot position.

pronation dropped arch equals unstable foot supination high arch stable foot and then we essentially go back and forth between supinations pronations or lifting the arch dropping the Arch or stable unstable And that's how you are essentially articulating with the ground, absorbing the energy from every step that you take.

That's you store energy or you potentiate energy and you release energy. This is just the dynamics of human movement. Supination and pronation and the back and forth movement of that is completely normal.

Now, where this starts to deviate is where you become too extreme. I like to think about your foot function kind of like a seesaw or a like, a legal scale, right?

And we go back and forth on the seesaws or the scale is tilting one way versus the other. And when we supinate, we're going to start to go on one side of the tilt.

and then when when pronate, We go the on other side. We want to back-and-forth in the small degree of movement. If I tilt the seesaw or the scale too far in the direction of supination, I'm essentially becoming too stable.

Yes, too much stability is possible and it's not a good thing. When you become too, to stable or overly supinated, your foot becomes very rigid. It's like it stuck and locked.

Or we could tilt the scale over here and we tilt too far into the unlocked or over pronated position, which means now you have a lot of mobility and instability in your foot.

So it is the extremes on this scale, Which is where we start to see pathology. It's not just pronation is bad. I'm not saying that pronations is not bad, that's like saying, hip flexion is bad or internal rotation of the shoulders bad.

It's not over pronation, uncontrolled pronations, the inability to decelerate pronatation. That is all where you start to see pathology. And I'm still not going to use the word bad, it's just where do you see Pathology?

How Flat Feet Affect the Kinetic Chain

So in the case of flat feet, really what we're talking about is an over pronated foot, a foot whose foot type has essentially tilted the scale too far over that they now have too much laxity or too instability in the foot.

Now to further understand the impact of this is I want you to understand, the timing of how this works. So let's go back to our seesaw. I remember as we take every single step, we go a little supinate, with a, little pronate, and we goes back and forth in this small movement.

Why we keep it within a narrow range of movement, a few degrees here, few, degrees, here a is because it has to do with timing. To go from supination to pronation has, to happen very, very quickly in the foot.

It's quick, quick quick. Right? Has to, do it timing when someone deviates way too far over. They tilt their scale way, way way over into that over supinated, or they tilt the scale.

Way, away, over, into the over pronated. they don't have time. to get back to the other side. That's the way that I want you to think about it. So it's a timing thing.

We keep our foot in this small range of motion so we can have the time to go back the the movement. Overly pronated feet don't have time, to stabilize fast enough when they are walking, running, jumping.

And therefore that's where we start to see the pathology. Okay? So flat foot is going to mean over pronated. We have a dropped arch. So we've defined this pronation.

Now the elements of pronations that I want to take a little bit further has to do with what happens a bit higher up because this will help you appreciate the impact of our feet on our knees, our hips, or lower back, all the way to the shoulder, the neck, and the jaw.

All the up. You can stand up again. I want you to feel these movements. When I teach, when I when teach my patients, why teach workshops, teaching professionals, I really want them to Feel it because it locks it in and you can experience it within your own body.

So let's stand Up again, if you Can, feet shoulder width apart or if You want to just kind of visualize the movement. And if we go back to moving our foot to the inside and to The outside.

So exaggerate rolling to the inside of your feet, exaggerating rolling into the outside of the feet. We now know that supination, pronation. Do that a few times.

And as you do it, can you feel or almost imagine what is happening to your knees as do this? Do you feel that as you collapse in, roll in to the inside of your foot, that your knees are coming together, your needs are knocking?

And then if we roll to that outside of our foot your, knees move further away from each other. Roll back to inside your of foot. Your knees come together.

Roll to the outside of your foot. Your knees move further apart. What is happening here and what we're feeling or experiencing or describing is rotation within your legs.

Your foot and every movement your foot does creates a rotation up the rest of your leg into your pelvis. So let's actually stay where we are and let us put our hands on our hips on her pelvis, put them on the side of the pelvis and then do that again.

Roll to the inside, roll to that outside and as you move your Again, we're feeling the rotation up our leg and now that your hands are on your pelvis, do you feel that you're pelvis is moving as well?

Every time we roll to the inside of our foot, our knees come together and your pelvic starts to roll forward. As you roll the outside of your foot your knees move further away and you pelvis starts tuck under.

This is called joint coupling and it helps you to understand the impact, the functional impact of flat feet or different foot types on the rest of the body.

Since we're talking about flat feet here or overpronation, I want to really emphasize that so we understand what's happening. But if we collapse to the inside of the foot, we start to get our knees that come together.

That's actually called knee velgus. It's a velgous internal rotation of your knee. You start feel your pelvis move forward. that's called an anterior tilt.

So if were to stand in that position, that is actually call a lower Crossed Syndrome. Lower Cross Syndrome is foot

overpronation, leg internal rotation, knee valgus, so knees together, anterior tilt of the pelvis.

That is called the lower crossed syndrome. If that is your foot type and that's how you stand, that it's demonstrating a unlocked, unstable foundation which is affecting your legs, your knees, you hips, lower back, pelvis and everything that sits on top of it.

Flexible Flat Feet: Muscle Weakness

That's you can start to talk about flat feet causing knee pain. flat feet causing low back pain, flat-feet causing sciatica. All of these things are connected based off of that joint coupling that we just described.

I just want you to appreciate that so that, we can take ownership of those movements in our body and then I truly feel that when you understand the way that the body works, you are more invested in making healthy decisions, in trying to strengthen the, body to work out, to use devices that support the foot, whatever it is, but you were essentially invested.

In this process. Okay, so that's the way that your foot works, okay? That's a way the flat feet can start to affect the body. So the that I wanna now break this down, because there's way we can get very, very specific on this, has to do with different types of flatfeet.

Now, the the I break down flat-feat over pronated feet, again, we're not using the word flatfeit, but I might say that a few more times. But when I am presented with a patient who has Low arches, okay over pronated feet not that high supinated foot.

I am starting to create a map in my mind as far as how I'm going to classify it. because again, not all flat feet are the same. Not all feet created equal.

We have to start to differentiate them. So that differentiation helps me help you even more. I can't give the formula or prescription to every flat foot that walks into my office because it's not how it works.

They're all very, very different. So the way that we're going to start this is by first breaking it down into is it flexible or is rigid? If you are listening and you have flat feet, are your flat feets rigid or flexible?

The way that we start to differentiate this has to do with what happens to your foot when you've no body weight on it, which is called open chain, and then you stand on your feet put body weights or closed chain.

Non-weight bearing, weight bearing. If you are sitting with your feet extended out, no body weight on your feed and you look down at your foot and see a beautiful arch and then as soon as you stand up and put bodyweight on you feet and your feets go vroom and they collapse down.

That is going to be flexible. That's a flexible flat foot. And what that's telling me is that you have arch potential. You have the potential ability and the flexibility to create or to shape or control the arch in your foot The opposite of that is going to be rigid.

A rigid flat foot is one that non-weight bearing open chain, sitting in a chair feet extended, you can see from across the room that these are big old pancake feet.

There is no arch in those feet and then obviously if you have no Arch non weight bearing, as soon as you stand in your weight-bearing, You're not going Okay.

So that is a rigid flat foot. That is rigid foot, no movement of that arch is happening. There is no potential to create an arch in a foot that has no arch when it is non-weight bearing.

Very, very important distinction. Okay, now between those two, flexible or rigid, that's your first kind of breakdown in this chart. We are going to start by talking about flexible because that is the most common that I see.

That wouldn't be the more prevalent. I've seen a lot of rigid flat feet, but the majority of who is listening to this podcast right now is going fall under the flexible.

or if you're a professional and you work with clients and athletes and patients, most likely you are going to be over here navigating the flexible flat foot.

So let's break that down even more. There are two most common causes of a flexible, flatfoot. The first one is muscle weakness. The second one is going to be ligament laxity.

This is a very important distinction because guess what? One of the most common myths that I hear is that all flat feet can be strengthened. Your foot is flat because it's weak.

Well, that's not true always, right? We also have a ligament lax foot and that ligamen laXity is oftentimes genetic or it is a sequelae of moving on a flexible flat foot for too long and then we've essentially torn certain ligaments.

But that is over here. You cannot reverse certain components of la xity. But let's create that distinction. So we are going to start with the muscle weakness.

We've got a flexible flat foot that we've determined is muscle-weakness. What are we going do about this? With this one, the way that you observe this and can differentiate this from ligament laxity is that muscle weakness in a flexible flat foot is primarily held in joints called the subtailer joints, but this is your calcaneus.

So it is just your heel bone rotating into a little bit of eversion. We typically see it in the back of the foot. Real quick, just so this is very clear for everyone, if we jump real quick back over to the ligament lax one, the Ligament Lax Flatfoot is going to have the falling heel, but it is like the whole arch just spilled into the inside of the body.

It's like, dropped into the middle. That is laxity, that is mid-foot, your arch in the mid of the foot, thats over here. When we think muscle weakness, we're just looking at a little bit of an unlocking in your rear foot.

So this is where someone may say, well my heel is collapsing, But I swear it still looks like I have an arch, might be a lower arch but I still have and arch.

That's where I start thinking about muscle weakness. Okay, so that sounds familiar, that's what you could start to be thinking. Now, our goal on the muscle weakness side is to go after the intrinsics.

You have 26 muscles in the bottom of the foot, and it is go to after your posterior tibialis, which is a muscle on inside of your foot and your glutes.

Yes, your Glutes can actually control your arch height and foot tight. I will give glute strengthening to every single one of my muscle weakness flexible flat feet patients.

Okay now for this again you're thinking muscle, weakness, slight drop of the heel and unlocking of rear foot creating a internal rotation of lower leg.

Maybe the knees are going a little bit valgus, maybe you've got a litte anterior tilt. First thing on this, how to strengthen your foot. The way that I strengthen the foot your step one always has to be finding proper alignment.

because what benefit does doing foot exercises with poor alignment do to your feet? This is like doing bicep curls with pour posture and you're just doing by some curls.

No, we always first step one before any exercise that you do, I don't care what part of the body you are exercising, you achieve alignment first, then you execute the exercise.

So, in your foot, it's not gonna be just a foot but in you foot or starting with your feet, you are going to lift your toes and find your tripod. Spread your toe as wide as you can, place them back down onto the floor, and then keeping

your toes on the floors, I want you to externally rotate your hips.

You're going, this is essentially like squeezing your glutes, rotate that hip out, which is like squeezing your glutes and you should feel your arch lift or engage.

From here you are going to take your rib cage and your are gonna stack it with your pelvis. So think of your ribs cage as a cylinder and pelvis as cylinder.

you are stacking the cylinders. And then I like to keep nice neutral head alignment. At this time, you can very much make sure that your tongue is resting on your palate behind your front teeth.

So you always want to be aware of the tongue position in the story. That is a stacked position. Again, real quick as a recap, foot tripod, first, fifth, heel, spread the toes as wide as you can.

If you have bunions and hammer toes, I would throw on some toe spacers. You would then externally rotate your hips to lift that arch, stack your rib cage and your pelvis, stacked those cylinders, and then bring your tongue to your palate and you're thinking string lifting up.

you are now stacked. From here, you were going to progress into Short foot is really the most common exercise, but I like to start short foot with an exercise called forward lean.

You will stay exactly in that alignment that you have. And staying in alignment, you are going to imagine that your stiff as a board. Stay stiff is a bored and ever so slightly you're going lean your body forward.

you can almost think of this like you were a tree swaying in the wind. That's how I liked to think it as well. So you were a tree, think of the tree trunk, and you're ever so slightly leaning forward and back to neutral.

Every time you lean forward, you will feel your toes activate or anchor into the ground. And then we bring it back. Slightly lean your toe's anchor, bring them back, I like to do five to eight forward leans, nice and easy.

And then on that eighth one, you're going to stand nice, and tall, stay exactly stacked as we did in the beginning. Now you are going push your toes into the ground without a lean.

As you push you toes in to the floor, exhale your breath. Then you will relax and inhale the breath, relax your feet. Exhale the breathe, push the toes down into ground.

and then relax the breath, inhale, relax your feet, and you're doing that for five repetitions. From here, I like to transfer into a single leg stance.

So from here you are going to start to exhale, push your toes down on your foot, just like you did, shift your weight to your right leg, then bring your left leg up so you were balancing on one leg.

Your breath is continuing the entire time. When you run out of that exhale, you will put both feet down and inhale. Start to exhale. Push your toes down again.

Shift your weight to your left leg. Bring the right leg up. So now you're balancing just on your side. And you are going to continue exhaling until you out out the exhale and then inhale back down.

You're essentially repeating. And I like to do that three times each. From here, you're going to grab like a lacrosse ball, a narrow ball something like that.

And you going place the ball between your heels.

Flexible Flat Feet: Ligament Laxity and Support

So you standing with your feet close together, put the bowl between you heels and what you gonna do is you slightly lift your heel and squeeze the balls together between the heels Keep squeezing the ball between the heels and you're going to lift all the way up into a calf raise.

You're gonna go up as high as you can in that calf rise and then you are going lower back down. I always like to relax at the bottom and then start again.

So you would relax, slight lift of the heels, drive your heels into the ball, lift, all the way into that beautiful calf raise. And then lower all way back down, place the bowl back.

Down. I like do that 10 times. Now, what you're doing here is that you are strengthening the posterior tibialis, which is a muscle in your lower leg that is responsible for lifting the arch.

That's what that muscle's job is. So by doing the ball between the heel calf raise, you are strengthening the posterior tibialis. From here, I would love to extend into more advanced single leg exercises.

This is where the neboso-kinesis board is great because we're going to be strengthening in the post-tib and the intrinsics all the way up the hip. into your glutes.

So I would do a few exercises on that and then I will throw in some single leg exercises really targeted at the gluts. I love reverse lunges. i love bowler squat where you bring one leg behind. I love a rotational lunge.

Sometimes a bowlar squat is called a curtsy squat. I like a rotational lunge, I love single leg deadlifts, single legs squats, step ups. So anything that is single-leg based, you are focused on your foot, on the core, and on you glutes.

That is going to be how you want to strengthen the flat foot that's flat because of muscle weakness. And then I recommend that programming. Realistically, I incorporate that into, let's say if you're bringing stability to the foot post plantar fasciitis and you are trying to regain the strength of a foot before you get back into your normal regimen, then you can do a little series every single day and I'll have people do in a little 10 minute foot strengthening, you cannot over fatigue these muscles because we use them every single day.

So to do a 10-minute foot strengthening series every day, that's not inappropriate knowing that your lower extremity muscles are used every, almost all day right?

They're your locomotion muscles. They are built for endurance. So I like to think of this as an endurance-based strengthening, also really good in the morning or the beginning of the day to really activate these muscles or at the begining of a workout.

Then long term, how you want to think about this is you would do these series of exercises before you do the rest of your training. If you are an athlete, you're doing this before.

Hit the court, hit the field, whatever it is. You're priming the system and you essentially incorporating it. Remember to always, always incorporate your breath in this.

Every time your toes go down, You should be exhaling. Hey, you want to be exhaling. So that is going to your foot strengthening for a flexible flat foot secondary to muscle weakness.

Now let's go to the other one. Flexible flatfoot due to a ligament laxity. Again, this is the one that it looks like the whole arch just spilled and dropped to inside of the body.

like a dumping or an unlocking of the whole mid foot. They're typically the ones that look the most obvious. If you go on like Google images and you're like flat foot, you can see a lot of just the foot dumping towards the inside.

That's a ligament laxity. that's not a foot that you strengthen away. You cannot build an arch through exercises in

that type of flatfoot. such an important misconception that I want to clarify because I get patients who have that foot type and I remember having this one patient who diligently strengthened their foot for a year like they were dedicated for year doing their food exercises and then they came to me and they're like I've been doing this for a year.

Like, am I doing the wrong exercises? And I was like, you have a ligament lax foot. You will never build an arch in that foot, so doesn't mean you shouldn't do foot exercises.

I'm not saying that, but the reality of the shape of, the foot of what we're trying to achieve, that part is really important. Okay. So in a ligament-lax foot type, you have this unlocking of the midfoot, kind of this bulging of your mid foot towards the inside.

Oftentimes there's bunions that present with it because of a laxity in your metacuniform joint. If you've a legament laximity there, the first metatarsal can swing out, so you absolutely could have that as well.

But this presentation, again, we are not strengthening the arch back. We are looking at finding or using external support. Now, you don't have to use external supports in a ligament lax foot.

However, in symptomatic ligaments laxx foot, this is where I start thinking about support because a ligament-lax midfoot foot is very unstable and just doesn't have the time to stabilize and it's starting to stress the joints and the ligaments and they keep getting post-tib tendonitis and keep get plantar fasciitis, and injure their knee, they are a high-level high school collegiate athlete and They're fatiguing faster than their peers, right?

So a lot of this has to do with our foundation where you may start thinking, well, what's the role of incorporating support into my shoes while still balancing my balancing it with foot exercises to keep that strength?

Okay. So for this, this is based around where we may want to look at art supports or orthotics. Now there's different degrees of support that you can bring into a shoe.

I will start with the most conservative and then the more aggressive over here. So the Most conservative would be, I would say actually even before a foot pad, but you could even do a heel toe drop.

So, essentially using a shoe that has a heel-toe drop puts the ankle in a plantar flexed position, which theoretically inverts or supinates the foot to slightly lift the arch.

So using shoes with a slight heel makes a foot more stable. Great. That could be one option. It's very, very conservative, but just know it exists. Then in line would be using foot pads to build up the shoe itself or the cleat.

This is good for skates, cleats, maybe certain shoes where it's difficult to fit some of these more aggressive foot support into them. Here you would get a pad that's called a scaphoid pad.

Scaphoid pad or LA pad, they're essentially interchangeable for the sake of this conversation. A scaphoid pad or an LA pad like Los Angeles, LA Pad. These are felt pads.

You only want to get felt. Felt pads that are put in the shoe, in cleat, whatever the footwear is to build up the arch and to essentially lift the bones of the midfoot up.

If you're going to try this, I would recommend getting a felt pad from Hapad. A-P-A-D. Hapad are these foot pads. And you lift the arch up and then you can add another one in the back, which is called a post.

So it's a rear foot post, a heel wedge or a varus post. So one of those is essentially what you're searching. But again, I would get it from HapAd, HAPad.com.

They have very, very good high quality pads. Of course, you can get them on Amazon. If you look for them Amazon, then definitely make sure you are getting quarter inch felt, quarter-inch felt always, nothing thinner.

Don't do silicone, don't to foam, okay? So you were building the shoe up and bringing the support to the parts of the foot that we need. If you want to go a little bit more aggressive, this would be an over-the-counter arch support.

This would something like the Naboso Form. At Nabosa, we have an arch-support with our texture on it, so you keep the foot activated while being in that support, that's an awesome option.

PowerStep is another one that I like. They also have three-quarter lengths, they have shorter insoles for certain shoes like cleats and things like that.

So very much like that. A little bit more aggressive to that would be the custom, a custom orthotic. Custom orthotics, when I make these for patients, I can also vary the degree of support that I'm putting in it.

I could do a mild foot support depending on the belief of the patient and where they want to go with it or the shoes that they're going to put it in, or it could be very aggressive.

If they are open to it, if they need it if their symptomatic, If their footwear allows it you can go very Very, very supportive where you're using things like phalanges, which is a wall that just holds that foot up.

It's like a ball that the foot can't push through and drop down into that overpronated position. So it depends on there, okay? Now, regardless of that arch support, whether it's the pad, it is the over the counter, It's a noboso form.

It is a custom orthotic. You are still doing foot exercises. So whatever I mentioned in the beginning for the muscle strength flat foot, you are doing those exact same exercises for ligament lax foot.

However, this time you want to make sure that you were doing these exercises either barefoot and you have to hold your foot in the position that it needs.

If you cannot hold you foot into that position because of the laxity, which is very common, then I recommend checking out the foot wedges from Noboso.

These are wedged, 10 degree wedge, 25 degree wedge, and essentially prop your feet up into a neutral position, so then you can focus on the exercise. Otherwise, if you don't focus in keeping your foots and your focus is on exercise, you're foot is going to collapse right back down.

and then you're not getting the benefit of what we need. The other option instead of doing it barefoot with the Noboso wedges is to do it in your shoes with some of this support that we just discussed.

But it's all about alignment. Regardless of your flat foot type, you are achieving proper alignment first and you put the exercise on top of the alignment Okay, same exercises, I would recommend it in the same way with everyone.

There's one last thing that you can do for the ligament lax foot, especially if it's symptomatic, it gets flared up, and has a post-tib tendonitis, that has the tarsal tunnel.

there is a brace called an ASO. ASo brace, you could find this on Amazon. It is lace-up brace and you essentially tie it all the way up. I kind of think of it almost like a corset for a foot.

you put these straps across and it's going to lock your ankle and your rear foot. In extreme cases, I will recommend that to patients.

Rigid Flat Feet and Accommodative Care

I have patients who have had a ligament-laxed foot, a post-tib flare-up, they calm it down, but then they're going on a ridiculous hiking competition or trip, whatever they're doing.

So I know that they are going on to this very unstable environment that is definitely going to stress their foot and they just got over this injury and their in a recovered state but they still have their ligament lax foot.

I will tell them preemptively or preventively to use an ASO brace when they do the hike. That's a way that you could think of that as well. Let's now go into the other foot types.

This is the flexible one. Flexible flat feet there's two main causes muscle weakness ligament laxity and of course you could have a combination of both.

On the other side the rigid this is the one remember where you look at it open chain no arch standing up still no Arch right so the bones are essentially just fused flat Now, there's two main causes or types of this as well.

The first one is going to be that you are rigid in an overpronated position. So you're rigid and stuck and fused With your foot collapsing in and the internal rotation of the leg and knocking of knees and anterior tilt of pelvis, all of that is essentially built off of this rigid, stuck foot.

So it's rigidly overpronated. Why I emphasize that is because there's a rotational impact on the rest of the body. This can be very hard. on a person's ankles, it can definitely lead to ankle arthritis.

It's very hard on someone's knees, that can lead knee arthritis, very on the hips, the lower back. So that arthritis or that structural rigidity definitely affects the skeleton all the way up.

That's a rigid overpronated. The other rigid type is a Rigid Pancake. And this is not a formal diagnosis. This is my word of using it, but it is a foot that's not rolling in and collapsing to make the flat foot.

It is essentially just flat. There's no rotation. Just a pancake. All the bones are parallel to the ground. And that I see a lot. it's a genetic foot type.

You will see this in certain populations that it a wide flat pancake foot. And that's just how we'll describe it. Why that is important to note is because there's not a lot of play in these feet and if there is no play because of the rigidity, I can't recommend stiff custom orthotics to a patient like that.

If someone has a rigid over pronated foot that has stuck down and collapsed, they will not tolerate a hard, plastic, stiff, custom orthotic, why would I sell $1,000 orthotics to them, right?

It's one of the biggest misconceptions that I see out there and honestly a frustration because I get the patient who comes in with multiple pairs of custom, orthotics that they paid for and say they all hurt my feet.

And then I look at their feet and they fall under this rigid flat, rigid, flat foot type. Well, no wonder, it's not appropriate. So on this, what I want to talk about first is the rigid over pronated.

So the Rigid over Pronated is a sequelae of the flexible overpronated, so normally I will see the rigid, over-proneated foot in someone who is, a little bit older, seventies, eighties nineties, kind of like that.

And they had a flexible ligament lax foot. their entire life, but for years they just moved through that unstable foot without sufficient strength and alignment that they started to wear the joints down, wear them down and then eventually the joins wore down to the point that the body fused them to minimize the pain and now they have a rigid overpronated foot.

So that's the sequelae of where that could go. The rigid pancake one. that was essentially genetic. They were born with it. That's not a sequelae of something.

It's is not pancake foot because the arch is weak. Okay? Now, for this, whether it is a rigid overpronated, a ridged pancake, the way that we are thinking about this is the term that is called accommodative.

Accommodative means that, we're essentially trying to just distribute pressure a little bit more evenly across the foot. There is a type of insole that I recommend for these individuals and it's called plastazote.

You can find this on Amazon. Plastazot is actually a trademarked material and that material is like a peachy color. Plastazote is like memory foam, sophisticated memory phone for your feet.

And it redistributes pressure away from any of these hotspots because if you have a rigid foot, rigid flat foot in any way, there's a lot of bones that start to become very prominent and it can be very painful.

These feet are very, very pain. Painful on the bottom because it's like they're walking on their knuckles, painful in the middle of the foot because their whole mid foot is just fused and stuck.

painful into the ankle and then obviously the rest of the way up. So we want to accommodate them with this plastazote material or a memory foam material.

You can build these into custom orthotics. Yes, you could extend them and add plastizote to something with a very, very mild arch. Maybe that's for the pancake foot that has mild, mild movement still.

We could look at that. And then guess what? In addition to that plastazote insole or that memory foam in sole, we are still doing our exercises. But this time, the goal of the exercise is not to change the arch of foot.

We're not trying to build an arch in the foot, Even if you have a flat, a rigid flat foot or a pancake foot, your foot still needs to connect to your pelvic floor.

Your intrinsic muscles still have to connected to pelvic to diaphragm to tongue because that's how you talk to gravity. That's you maintain stability from the ground up or from a foot to core perspective.

So, rigid feet still need to be strong feet. We need to do those exercises. We to keep the toes mobile and activated. So I think actually the biggest takeaway here is, regardless of your flat foot type, flexible, rigid, weak, ligament-lax, pancake foot, whatever it is.

you need to strengthen your foot. And the goal of strengthening the foot is not to see a visible shift in the arch. That would also be a huge takeaway.

Your goal when you strengthen you foot, regardless of your type, is to not change the actual morphology of it. You're not going to do these huge movements and changes in foot because what's really interesting in a foot when see foot changes, Like let's say I use an orthotic and I'm going to create stability of the foot.

My correction with a custom orthotica in the heel on average is two degrees. That's it. So we're not looking for like a 30 degree shift. or five millimeters or a centimeter lift of your arch, that's not how the foot works.

Everything is micro. And everything is small. The blood vessels, the fascia, and the nerves, everything small, so one degree, one millimeter of a change in your foot is huge to the impact on the rest of the body.

That is very important to understand and appreciate. Okay. So last thing that I want to mention here before we wrap up has to do with the kiddos. Flat feet in kids.

Here's a few things. This will be my, my rapid fire flat feet children segment is first one. All children are born with laxity and lots of fat in their feet, primarily cartilage, actually very, very few bones when a baby is born.

So the flatness of a Baby foot, totally normal. They actually have more of the pancake shape to their foot. That is again from the fat and the cartilage.

They do not have the bony structure yet. But they actually don't have a lot of bones.

Flat Feet in Children

And then as they start to grow and develop, they will develop their foot through the age of seven as far as when it starts to determine what is most likely their type going to look like.

So an adult's arch is formed through age seven. Now, it is told by pediatricians that all children will grow out of flat feet. That is a huge misconception as well, because there are certain types of fat feet if we go back to our chart, muscle weakness, pancake, ligament lacks, I can actually identify and tell which children have ligament laxity by around two to three years old.

Now, I don't do anything with the children at two or three-years-old because I want them to be barefoot as much as they can through the age of four, for sure, but even longer, of course.

Of course, when we go to school, then their shoes, et cetera. So I will try to hold off any sort of arch support or intervention for a child until sure at least four or five years old.

Do they make orthotics and arch supports for toddlers like a three-year-old? Absolutely. I never use them in two-year-olds. i want the child to be barefoot as much as possible but again that lacks that you can see in a child around two, three, four, five years old, you'll see that same kind of rolling in of the ankle, almost like the adult foot.

It takes a little bit of a trained eye. So if you have questions about a child, your child or a relative's child as far as their flat feet and are they going to grow out of it, please reach out, virtual consultations, very easy for me to do for a kid's flat foot, but when I see ligament laxity, in a child, let's say a four-year-old, I actually saw a five- year- old last week who had this, and I explained to the parents that this laxity of the foot was genetic, that's why she's standing like this and she actually turned out in an abducted gait.

I let them understand the impact of that, That laxity foot is going to make a child a little bit more easily fatigued. They may ask to be carried more.

The may trip over themselves. they may feel a bit awkward. Let's say they're doing soccer in school or something. You know, they trip on their feet. A flatter foot, pronated foot isn't an unlocked foot and it doesn't have time.

to stabilize fast enough. This is even in a child, right? So that's how a kid will start to present. Now, if you use arch supports in the child. So in this five-year-old, I recommended to start with an over-the-counter arch support.

I recommend PowerStep. PowerStep has great children's over the counter arch-supports. And what that is doing is it's creating a more ideal alignment of the foundation, making the foot a little bit more stable so it doesn't get as tired as easily.

It sets the foundations through which the bones, the joints, nerves, tendons, blood vessels grow through the rest of body, especially when you're five years old.

This is very important. And I said that that's the environment for when she's in school. When she comes home, I still want her to be barefoot all the time in the house.

Take off the shoes and get that bare foot stimulation. I want bare-foot play. If you can put her into gymnastics and martial arts or dance or something that is based around foot awareness, foot strength, pointing, all of that.

Very, very good. And then I gave a few exercises that is easy for a child. One of my favorite is to release the feet on a neuroball. Just set the little neuro ball domes down.

When they brush their teeth, they stand and they release their feet. It can just be, you know, there's just kind of playing fun, almost like it's a pebble path and they're just stepping on it.

That's the great way. Put the ball between the heel, I gave this exercise earlier, put the bar between heel and just

make it something fun for the kid to do, right?

Those are probably the two biggest exercises. You could have them do balance as well. So balancing for a child is great aswell. I love activity based or play based.

so that's where I would say do the dance, do gymnastics, to the martial arts for that child. But again, when you're thinking child, all children are born with flat feet.

Not all Children grow out of their flat feets. Typically you can identify ligament laxity in a child by around two, three years old, even though a parent might not bring them in sooner.

I don't do interventions of arch supports until four or five years. A child grows an adult arch through the age of seven. And yes, our arches can continue to shape and develop after that.

Of course. So yeah, that is where we want to be thinking about our children. If you have any questions in relation to your child's flat feet, I can definitely reach out for a virtual consultation.

I love doing pediatric or children-based assessments so that I could also educate the parents because the parent's play a very important role in setting the foundation of a healthy foot habit.

Our job as a parent is to teach the child how to prioritize their health and to understand their foot. And last thing I'll say about the children and flat feet, because I get this a lot from parents, is if a child has a flat foot, namely ligament lax, and you use custom orthotics for, let's say, five years, they start custom orthonics at age seven and your child uses them till age 12, 13, 14.

Do they no longer need it? So, yes, using custom orthotics in a child does not mold the foot into an appropriate position. This is important, this is not like braces or something like that.

You are not moulding, holding, and trying to create alignment like the teeth to shift. Once that arch, or that, arch support is removed, if they have ligament laxity, that foot is going to drop.

So custom a temporary shaping of the foot that once they are done growing through the age of 18 to 20, they no longer need the arch support because the food has shaped itself to support the body.

Unfortunately, that's not how it works, especially in the case of ligament laxity, but we build the strength on top of it. So as we wrap up, this episode is for all foot types, not just flat feet.

However, if you do feel like you have arches that are falling or you've a pancake foot or your curious of your foot type, then hopefully this helps you start to better understand your path and the realistic outcome that you can see from your exercises, art supports, et cetera.

If you have any questions on your foot type or you're open to a virtual consultation, please schedule that through my website, which is my name dremiliesplicl.com.

Remember to focus on you foundation. Consistency is key. A small dose of foot strengthening every single day will go a very, very far away. I hope you enjoyed, you learned a lot, and I'll see you on the next episode.