# Let's Talk Bunions! How Big Toe Mobility Affects Mobility - and therefore Walking Longevity! Transcript

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## Big Toe Mobility and Gait

The mobility of that big toe connects to another very important muscle, your glutes. As soon as that first metatarsal starts to swing out, it is now what's called osseous.

It's bony. You're going to start to denude your cartilage and wear it down. So you do that over and over, and year after year, so eventually you have bone on bone.

Hello and welcome to another episode of Root to Rise. My name is Dr. Emily Spickle, your host, and today we are going to be talking about a topic that I get asked about as I put out interest all the time.

And that, my friends, is bunions. Now, instead of just going heavy into just bunions and what causes them and how to treat them, we're also going to focus on the big toe and why the mobility and the function around our bigtoe is so important for movement longevity.

Because again, as a functional podiatrist, that is my goal and a mission is to help people think about and prioritize their movement, longevity, So when we start thinking about the big toe, what I want you to think about is walking and our ability to walk the right way to supports, again, that movement longevity.

Now, when think big-toe, really what we're thinking is extension. It's called dorsiflexion. And if you are listening, you're think of how does our foot and toe move is if put your foot in like a calf raise position, This would be a high heel position.

You're lifting your heels off of the ground. What is happening as you do that is you are extending or dorsiflexing that big toe.

## Why the Big Toe Affects the Glutes

Now, functionally, when we walk, where this happens is when one leg is in front of other and the back leg which is in a hip extension position is a position called a rigid lever that is that heel lift position.

It's called the rigid leaver but it's also the propulsive phase of gait. Now what this means to break it down is this is where you are essentially releasing your power.

So the power position of the human foot is a rigid lever that calf raise when your leg is behind you and you're about to push off, you are ready to release your power or your energy.

That's essentially what recoils that leg forward to take your next step. And I've done webinars and podcasts and I have spoken a lot around the art of walking.

And the Art of Walking is really based around movement efficiency. It is a series of essentially loading your rubber band, recoiling that rubberband, bringing that leg forward and repeat, repeat repeat.

So the ability to walk the right way for longevity is based on a proper push off position or a propulsive phase of gait and that my friends is tied to the big toe and how your big tow has sufficient mobility and your mobility of that big connects to another very important muscle, your glutes.

And what happens is that you can have a big toe to butt connection. If your big toes is not working the right way, guess what? Your gluts are not. When you get lazy glute or your glut are a little bit weaker or slower, this has a

myriad of issues that can be presented.

It could be SI joint pain, it could low back pain. It can be instability into the knee. You can start to get meniscal injuries, ACL, just stress to the joint, osteoarthritis to knee, you can get ankle sprains, planar fasciitis, Achilles tendonitis.

So you see there's a lot of things that happen when we lose that optimal function of our glutes. So when I work with professionals and they're thinking about the glutes, I'm always teaching them you cannot think about gluts in isolation.

You have to go all the way down to the foot and look at that big toe. What is the range of motion in the big toe? What does the alignment of the Big toe, what is this strength that we are able to tap into in that Big Toe?

Now, for any of professionals that are listening out here, as we push up into that rigid lever position and you're extending your Bigtoe, we need at least 30 degrees of dorsiflexion of our BigToe.

If you lose 30 degrees dorsiflexion in your big toe, you're essentially falling into what's called a limitus. That limited ankle doriflection is going to change the way you move.

Inherently, it's going change that way that you can move, You cannot cheat around it, well you could cheat it around, but you are not going cheat in a way, that maintains that optimal function.

So again, what we need is a minimum of 30 degrees dorsiflexion in the big toe. Now a test question when I was in podiatry school was, What is your ideal range of motion in that big tow?

It's 65 to 75. And for any of the ladies out there who wanna wear their stilettos, if you want to wear stiltos and walk in them, you need even more than that 75 degrees.

You need like 90 degrees and sometimes even up to 100 degrees of dorsiflexion of big toe. If you do not know what that looks like, it is a lot, okay? So we need to make sure that we have sufficient dorciflection in our big-toe joint.

## Big Toe Range of Motion and Compensation Patterns

minimum 30 degrees. If you do not have 30 degree dorsiflexion in the big toe and your leg is behind you and you are trying to take a step, you're going to compensate.

You're gonna cheat or move the body in a certain way that is going allow you to still walk. Can you still walk without 30 degrees dorsiflexion in your big toe?

Absolutely, but you're going to be doing it in a way that is less efficient. So the way I see this in my patients who have a limitus, so a Hallux limitis, a less than 30 degree dorifluxion, in that big toes, is they are going do Really four main things.

First one is they're going to start to shorten their steps. Now, if you listen to anything like I've said about walking and walking for longevity, there is a right way to walk for Longevity.

And one of the key components of walking, for Long Jeopardy is long steps, Long steps allow us to walk fast enough. When you walk FAST enough, what happens is you start to rotate your pelvis, you counter-rotate your T-spine, and you potentiate your entire fascial slings of your body and then you recoil through.

So it's an amazing way to hydrate your connective tissue, but It also activates a systemic, so a whole body circulatory pump that makes sure that you get sufficient blood to your brain.

And when you gets sufficient blud to brain, you stimulate brain derived neuro growth factor, which is cognitive

protective. To do all of that, you have to be able to take long enough steps.

To be to able take a long-enough step, You have have at least 30 degrees thoracic flexion in your big toe. So, first compensation is you start to shorten your steps When you shorten you step you no longer need to rotate your pelvis or your rib cage.

so then we actually start you lock up these areas of the body. When you do not rotate your pelvis and your T-spine, you essentially are creating spinal and rotational stiffness.

It's like everything just starts to get stuck The fascinating thing, when you look at someone walking and you really break down the gait cycle, there are so many rotations that are happening.

There's rotations and spirals everywhere in the human body, from our bones, our connective tissue, to our joints, and the way that we do what's called joint coupling.

So if you take away these rotations and these spirals of movement and you lock the body, well, that rotational energy has to go somewhere. It's not getting dissipated.

it's being freely expressed through the bodies. So what happens is it just gets stuck in the joints and we get a lot of joint pain, joint wear and tear.

This leads to premature osteoarthritis or degenerative joint disease. can be very, very painful. And it's again, because you're just moving in a way that is overly restricted.

So we start to get joint stress, body stiffness, fascial stiffness. You of course not moving as energetically efficient, so it is exhausting to walk without that full spiral long step length.

So, we just aren't going to work as much if it's not comfortable, right? So that is a very important part of it. We are going start shortening our steps.

Now another compensation that may happen, and I'm sure you've seen some people do this, is if we do not have enough ankle or big toe dorsiflexion, What happens is if you cannot move through a joint, you actually go around a joints.

So what happens, is the individual is going to start to turn their foot out. This will look a little bit like a duck walk. Now there's many different reasons for a Duck Walk.

The Big Toe is not the only reason of why someone walks with their feet turned out like duck, but a common one is especially if they do it at the moment of push-off.

They turn the foot out, roll through the inside of the toe. That abducted push off position happens to be called a low gear pushoff, low-gear push, off turning the feet out.

This is essentially unlocking and destabilizing the rear foot. As soon as we turn the foot out, it rotates your ankle in a certain way that unlocks it and destabilizes it.

Very common cause of post-tib issues, perineal issues knee stress, energy leaks. So I consider that push-off position an energy leak. You're pushing off of the inside of toe versus going through the toe.

You go around the toes which can contribute to bunions which we are going to be talking about soon. But this turned out position where you go round the big toe joint called a low gear push off is a unlocked unstable foot position.

energy leaks, joint stress, inefficiency contributes to bunions and different tendonitis.

## What a Bunion Really Is

So that's another very, very common one. Third one that I want to mention, which is kind of an extension of the shortening of this stride, we see this especially when people also have ankle arthritis and they have more arthritis so think of someone maybe a little bit older is that they've insufficient range of motion in their big toe so they start to shorten their steps they started to short in there steps so much that the actually no longer have what's called hip extension they become They start to march, they start shuffle, and I'm sure you've seen these patterns that the foot is just so arthritic that they just slide their feet or they're picking up their feets like they are marching, turning the hips out.

This apropulsive gait is of course very inefficient as well. And if we move with no hip extension and we shuffle our feet or we have a very anterior gating or marching, your glutes, the whole backside is going to shut off.

If your posterior chain shuts off, Woo! Back pain, SI joint pain. Instability in that pelvis. That instability of the pelvis is going to go up and down.

Hurts the shoulder, hurts the neck. You can get migraines, throws off the jaw. Everything is influenced from this. And again, We are talking about the root cause being the big toe.

So if no one is looking at the Big Toe, we are missing the actual cause of the rest of all of these presentations. I don't know about you, but if anyone has ever had low back pain, SI joint pain sciatica, piriformis syndrome, knee pain whatever it is and you go to an orthopedist maybe chiropractor, physical therapist and if no one is looking at your big toe They are, they are missing a huge contributor to what we're talking about here.

So you need to then make sure that you have the insight to say, well, what about my big toe? What's the range of motion in it? Right? Do I have range motion?

Is it limited? It's a painful or do I. Have a bunion. And that leads me to, again, one of the most common conditions that I am presented with questions, but one the conditions, that has probably one, of most prevalent myths and misconceptions around it.

Yes. Bunions. We are talking about bunions now, some of, the common questions that, I get asked or the misconceptions, around bunion are, My bunions are genetic.

I got them. My mom has them, my grandma had them so therefore I have bunion. Bunions in themselves are not genetic, it could be they're caused by my shoes, My shoes did it and therefore shoes are the worst thing in the world, right?

That's very common one that I hear. Another very common one is that I reversed my bunions by doing exercises and stretches, and therefore bunion are reversible.

So these are three of the most common ones. I want to address those three as a functional podiatrist. and as a podiatrist that for 10 years did surgery so I did bunion surgery for ten years.

I understand the role of bunions surgery, the benefits, really the patients that benefit from it the most and then which bunians can be for the I won't say reverse, but you could push pause on the presentation of the bunion.

We'll go into that. And then really what are the most common exercises or techniques to push, pause, on a bunions? Okay, so first one was, my bunians are genetic.

I got my buns from my mom. Okay. So one, this is not true, But what is true in relation to that, is that our connective tissue, the integrity of our connected tissue that's genetic.

So if someone has ligament laxity, right, and there's over a hundred ligaments in the foot, these hundred liggaments can be a little bit looser than in other people which contributes or predisposes them to a bunion.

Now where that will make sense is when I explain really what's happening when someone gets a Bunion, okay? So now in our foot, We have these long bones, and if you could picture the foot and you're only listening to the audio, on the top of the feet we have long bone that are called metatarsals, you have them in your hand as well called Metacarpals.

These are long-bones metatasals You have five metatosals and each metatoal extends into your five toes. these metatsals are stabilized by ligaments. Now, on the inside, the first metatarsal has a little bit more ligamentous integrity around it.

And there is a joint in the middle of your foot at the base of the metatarcel, happens to be called the Metatarcel Cuneiform Joint. There's not a test after this episode, but that joint is really where the bunion occurs.

So bunions are not a big toe issue. Bunions or a mid foot issue, if you are lacking mid-foot stability, then that is where you start to lose that stability at that joint that met cuneiform joint is just a joint in your midfoot, which allows the first metatarsal to swing out.

It opens up the 1st and the 2nd metatal start move away from each other. creating the classic bunion bump. The bump of the bunions is essentially the head of first metatarsal.

And then because your toe is still connected to the metatasal, you have muscles on the inside of your foot I guess it would be relative to the outside of the foot, that is going to pull the toe towards the second toe.

So you have muscles that pull big toe toward the 2nd toe and simultaneously the 1st metatarsal is moving away from the 3rd metatasal creating the very classic bunion bump.

I'm sure we could all visualize what a bunions looks like. Okay, so once we understand the way that that works and that it is really a mid-foot ligament instability that allows that first metatarsal to move over.

That ligamentos integrity, that's genetic. and there is a foot type that is most commonly associated with bunions. Bunions that are typically considered hereditary or genetic, and that's going to be the flat foot.

## Myths About Genetics, Shoes, and Reversing Bunions

The ligament, lax, flexible flatfoot is the one that stereotypically is at most at risk of forming bunion. And it is based off of the genetic integrity of their connective tissue.

So the bunian itself is not what's genetic. It is the connective tissue integrity and therefore also the foot type. Okay? So we just want to make sure that we're talking about these things in the same way.

Why this is helpful is because if you have a foot type and a ligament lax presentation, well then you can educate yourself and understand the role of foot strength, foot stability, holding your foot in a stable position, how to properly prevent the progression of the bunion.

That's essentially what we're focusing on is how do you empower yourself understanding what predisposes someone to forming bunions in the first place.

which leads me to my second myth or misconception is that shoes cause bunions. Now for this one, there's a little Disclaimer here. Okay, if you wear pointed stilettos all day every day year after year, after, year.

Can you start to push the big toe towards the second toe creating the angulation in your toes kind of that pointed position. Yes, you can do that. So that, I will give you that that you could blame shoes on.

However, let's go back to what I said before. What is a bunion? A bunions is not the angulation of the big toe. That's not what a Bunion is. A Bunions by definition is an opening of first metatarsal relative to the second metatasal.

You have them moving away from each other. creating a prominence in the first metatarsal head. And then of course, a simultaneous pulling of the toe. So if you wear pointed toe shoes over and over, and you get this angulation of your toes, just the toes moves over not the metatal sole, that's actually not a bunion.

That is a Halex abductus. It's not Hales abducta valgus, it's by definition a Bunion, It is an anglation of a big toe Sure, is it aesthetically not attractive or whatever you're looking at as far as function?

Sure. But we want to just be very, very clear of what a bunion is. Okay, so. If it's not the shoes that is causing that metatarsal to open up, what is it instead?

Not the shoe. It is that foot type. The foot and an instability in the foot without ligament laxity is the predisposing factor to that. Now, not all flat feet where you see bunions, and then not bunion that are on flat feets.

So you can also have ligament laxity and not have an overly flat foot. You can have a isolated first metatarsal cuneiform laximity which allows that bone to swing over.

Okay. Now, having said all of that, using pointed shoes, which is pulling the toe over, is going to start to compress the big toe joints. And when you compress, the Big Toe joints, it can start a wear down the cartilage.

It can be painful. it, can starts to create inflammation like a synovitis or a capsulitis. So you absolutely can present with that and that can be very painful.

And that of course can change the way that you walk. You could have an intelligent gait and you could avoid the big toe. So we still want to factor that in.

even if you have an isolated angulation of the toe, we still want to address that. Which then leads me to the third myth or misconception, which is around the reversal of bunions.

Now the myth, or the misconception is that you can reverse bunion without surgery. Or you've heard people on social media or the internet saying, I reverse my bunions or I have a bunion program and I guarantee you that you can reverse your bunian without surgery.

Now give me my money. If that was possible, i would have created a program like that. You cannot reverse bunians without surgeries. That is the statement.

that is a fact. Go back to what a bunion is. The angulation, the opening of the first metatarsal relative to the second metatarcel. That bunions, that is a Bunion.

You cannot get that first Metatarcel back in place without surgery. As soon as that First Meta Tarsals starts to swing out, it is now what's called Osseous.

It's bony. it's in the structure of your bone where that Bunions is, which means the only way to truly reverse a bunion or a first metatarsal that has opened up is to surgically do bony work.

You are going to either shift the first meta-tarsals head over and you're essentially creating almost like an illusion of straightening the metatal soul or what many surgeons will do and I'm sure you've seen this on the website or on internet and if not you will probably start because you hear me say these words.

It's called a lapoplasty or lapidus. And what they do with that is down at the base of the metatarsal, they essentially take out a wedge, like a pie piece, and then they swing the whole metatarcel over, throw a screw, through a plate, something.

And then you are fusing the first metarcel straight relative to the second. That is a true correction and reversal of a bunion. Boom. You cannot do that without surgery.

What can you do without surgery? This is where you're looking at the toe. The toe that is angled towards the second, third, fourth toe, right, that angulation of the big toe which creates the illusion and a lot of people think that that's the bunion.

That's where people may be thinking bunions splints, toe spacers, anything to pull the toes straight is therefore aligning or trying to create a better alignment of the joint.

It's taking the component of bunion, that is the toe angulation and making it straighter. So if I do that, it will actually make the bump of the first metatarsal looks smaller, but you're not reversing the opening.

So anything that pulls that toe straighter is going to create that alignment and that illusion. This is where if you like toe spacers, bunion splints, anything, that's opening up the toes, there's different splinting and devices to support that.

That is really, really good for angulation of big toe, which is related to footwear. The stilettos, the more narrowed shoes, The loafers, anything that's pulling that foot into more of that triangular position.

Toe spaces are incredible. Bunion splints. Focus on the toes. Tow alignment is soft tissue. Soft tissue means it's the tendons and the fascia and ligaments.

So those you can open up and spread through those different modalities. But again, that not fully what a bunion is, right? But we can create that alignment and that illusion.

So I absolutely love toe spacers. Use bunion splints if you like.

## Toe Spacers and Foot Strengthening

To me they're a little bit more cumbersome. They have some plastic component to them so they are not overly comfortable. But there is a company called Bunion Booty.

Love that product. That pulls the toe out kind of like a bunions splint. Hooks around the heel. Of course, we have toe spacers at Naboso to open up all of the toes.

If you don't want to use the five toe spacer, you can get one that just opens up the first and the second. That is great as well. So you're getting that natural alignment.

And if you are using these consistently day after day, end of day or you wearing them in your shoes, You are wearing then when you work out, when do your Pilates, whatever it is, your supporting a more natural toe alignment.

You will over time create a more aligned hallux or big toe position. Remember I didn't say anything about bunions. you're creating that big to position so I am a huge huge fan of toe spacers, bunion booty, first and second spacors.

So we definitely want to do that okay. Now if we think about a bunyan the best ways to put pause on a bunion and we'll say that this is really the bunions that have to do with the metatarsal opening but if anyone has an angulation of the big toe and you're not quite certain if your metatasal is opening up then let's just think of this as something that you could do as well.

Or if someone just wants to flat out prevent any sort of misalignment in their toes, especially the big toe, then this is what you want to do. Okay, so my bunion programs is based around consistent use of toe spacers, bunions splints, Bunion booty, first second toe spacer.

So you're supporting that natural alignment. Second thing that I like to do is to also activate the muscles that hold you in that position. So it's really teaching through the use of your muscles, not just toe spacers, but the actual opening and the spreading of the toes.

Can you open them and fan them out? We have 26 small muscles in the bottom of the foot, and there are little ones that abduct and open up your toes. Those abducting muscles that are opening up is really important to keep the small muscle strong and stable.

So standing, lifting your toe up, find your foot tripod, spread your toes as wide as you can, fan them out, place them back down on the floor, feel that nice stable base, and then you can do it again, right?

Lift, feel the tripod, spread, place the toes down, relax. Lift spread place them down relax and you're essentially going through that a few times almost like a wave to really feel how those muscles activate.

Once you are in that tripod and those toes are spread I like to activate the true strength of our toes which is through toe anchoring. and I do this through an exercise called Forward Lean.

Now before we do the forward lean, I need you to do something to your rear foot. Your rear we want to rotate into our hips. We're going to externally rotate in to our hip, which is going lift your arch and create a nice stable foot position.

Remember that one of the most common contributors to bunions is a flat foot. A flatfoot is essentially a rolled-in, unlocked foot when we roll our hips out it lifts the arch and it puts the foot in a stable position.

Again, flat-foot, is rolling in, arch dropping, unstable. We want to roll the hips, out and essentially externally rotate that leg which will lift the and stabilize the rear foot.

That is the position that we want to hold our foot in with the tripod and with those toes long, straight, and wide. And then from here, now we can do the forward lean.

With the Forward Lean, you're staying exactly as you are in the feet. You're standing nice and tall. Imagine you's stiff as a board. Stay stiff is a bored and ever so slightly, You are going to lean your body forward.

you not going break at the hip. Your gonna stay stiff, as aboard. and then you come back vertical. And you do that a couple times and every time you to it you should feel your toes activate.

When your toes activate they anchor into the ground. That anchoring into ground is technically called toe flexion. that toe flection is how you stabilize your big toe for push off for that propulsive phase of gait.

The way that I progress this forward lean is that, I have people then try to find that toe activation without the lean. So could you stay on the tripod with your toes wide, actually rotate the hips, find a nice super stable foot.

And then without leaning, can you push your toe down into the ground and then relax. Push your toes down in to the down and relax, Can you find the same pattern?

essentially you are creating foot stability by doing that. The way that I progress that again in this bunion progression or bunions prevention program is to link your toes to your pelvic floor to, your diaphragm into your tongue, which is almost everything I speak about.

If you go to YouTube, search my names called foot to core, toe to tongue. It's a fascial based way of creating stability in your body, but as your toes connect to the floor, you will essentially exhale and it's going to stabilize your diaphragm.

Toes go down, exhale, and then release. that as your toes push down, you take your tongue, push it to your palate. This is the basis of how I start to focus on strengthening the foot, stabilizing the for the prevention of bunions.

That is a core of it. You're using toe spacers in your shoes at the end of the day when you work out, creating a nice stable alignment. And then for those who truly have a ligament, lax foot over pronation, certain degree of foot type that is not stable, then I may suggest certain pads in the shoes.

There's a scaphoid pad, a scaffold pad goes along the inside of the foot, very important to use that. You can use pads on the back of this shoe, it's called a varus post, and it would be a wedge on inside the shoe and would tilt your heel into a more stable position.

These are pad options to add to the shoe if you want to stay in a more minimal shoe. And then, of course, you could do an over-the-counter art support.

I do custom orthotics for patients. But it depends on where your foot type sits, what your philosophy is. If you're trying to go really minimal and natural and you try to move away from the structure and the orthotics and support, then I work with patients to find an environment that is essentially the compromise, right?

What I know that they actually need for their foot type. but aligns with what they're trying to achieve. So we are creating support in our footwear. The degree of the support is based off of foot type and your philosophy of where you wanna go.

Two, we're strengthening our feet through exercises such as toe spreading, finding that tripod. Essentially this foot to core, toe to tongue is called short foot.

We're essentially extending shortfoot. Short foot exercise, forward lean exercise. Intrinsic strengthening. Now I get asked this a lot, so I do want to bring this up, where you do different toe yoga and you lift the big toe, you live the little toes.

Could you that? Absolutely. Is the research saying that lifting your big toes reverses or slows the progression of bunions? No. So I leave it to you. If you want do that exercise, please do the exercise.

But I don't necessarily recommend that. to my patients. Now, what I will say, and the last thing that I want to cover on this topic is which bunions truly would benefit from surgery.

Or if I see a patient and they come to me for a second opinion in relation to surgery, when do I say you might actually benefit or you may want consider the role of surgery?

So now, when I see a patient for a second opinion, because I don't do surgery anymore, I stopped doing surgery about five years ago, but when i do a Second Opinion for patient who has been told that they need surgery, they're curious about surgery.

They're just sitting in that surgical space of the appropriateness or they are trying to gauge more information around it. First, I always have to see an x-ray.

So if you schedule an appointment to me even virtually, i need to x rays along with the clinical presentation of your foot. What I'm looking at on x ray is not only the degree at which that first metatarsal is swinging open, But I'm also looking at the joint.

The joint health of your big toe joint, which is called your first metatarsal phalangeal joint your, first MPJ that joints the health, of it is what I am factoring in.

Is their joint space narrowing? Is there spurring? What is the angle of alignment? what is The degree of arthritis at which we are presenting with? Because most people who have a bunion for certain number of years is going to start to have joint wear and joint where is arthritis.

## When Bunion Surgery Makes Sense

So I'm gauging the health of the joints in the recommendation of would you benefit from surgery or not and then of course in addition to the first metatarsal opening.

Now, there is a window, a windows in which you have certain surgical options, procedure options. These are what's

called joint protective. A joint-protective surgery is essentially creating alignment of the metatarsal, alignment to the toe, and it is preserving your natural cartilage and the joint itself.

Oftentimes, you will do something that is decompressive. So you are trying to open up the joint. Maybe you shorten the bone even a millimeter to opened up that joint, take compression off of the cartilage to then allow a healthier, less compressive, and less deviated range of motion and function through that joints.

That's the ideal, right? Because it's joint protective, joint preserving, okay? That is where as someone starts to progress in the state of their arthritis and they have a decent enough opening of the first metatarsal and let's say they are 40. So they're a certain age where we know there's a lot of wear and tear that's going to still happen to the joint.

I may say, and oftentimes I have said, I would suggest or consider if you want to maintain that same level of activity that you are doing right now 30 years from now.

And the way that your joint looks right, now I will consider surgery. And the reason is that movement and activity and walking theoretically progresses a bunion.

Bunions are progressive conditions. Every step you take is theoretically progressing your bunions. So you may want to consider doing surgery. And if you do the surgery, I look at the x-rays and go through it with the patient and say, i would recommend a lapidus, which is the one at mid-foot, a Lapoplasty, another name for it.

I would recommended or you would be fine with a head procedure where you just shift the head over. So I'm trying to give them and educate them the information so that as they do these surgical consults, they have a deeper understanding of really why they would benefit from a bunion.

Not every bunion has to have surgery, even if it's a big old bunions does not mean you have to surgery. It's really based off of what is your goal, what are your movement goals, What is the volume of activity at which you want to be moving?

Is it painful? What does the joint look like? Was the degree of the arthritis? How open is that first metatarsal? what foot type do you had? Do you ligament laxity?

So you see that there's lot of questions that we want ask that is under it. And if I happen to tell a patient that they may benefit from this, do not look at the internet as far as stories of bunions.

That is the worst place to look because everybody comes in and heard this hundreds and hundreds of times is, I heard online that bunion surgery is the worst thing.

Oh, so many people have bunions surgery and their bunians come back. I would never have surgery. My mom had the worse recovery from surgery, bad experience, back experience back, experience.

The thing with that is almost like when people review restaurants or movies, you're either going to get the people who are elated And then you get the whole category of people who have a very loud megaphone and they've had the negative experience.

And you have the majority, the far, far greater majority who has a positive experience that maintains their function. They're happy, they're satisfied, They are good to go.

they are not talking on the internet. It's usually that polarity. So I tell people to just Don't even vet this out on the internet as far as other people's experiences.

So that is an important consideration. Okay, now here's the second type of surgery of where we want to be thinking about this and this is how I will guide patients just in case they're thinking well maybe I'll wait 10 years to do the surgery.

Has to with the degree of arthritis in the big toe. remember I said bunions are progressive so with every step we take you are essentially taking a step and moving through a joint with poor alignment of the cartilage you've deviated off of a cartilage which means you're going to start to denude your cartillage and wear it down so you do that over and over over a year after year right you start more and more arthritis or joint space narrowing, and you wear down the cartilage more, more more.

So eventually you have bone on bone. As you get bone-on-bone, that takes away your range of motion, which can lead to the limitus that I mentioned in the beginning of this episode, the less than 30 degrees of dorsiflexion.

So as you wear down the joint, creating more and more arthritis, losing the range of motion, your bunion is also presenting with a hallux limitus, which is changing the way that you walk.

As soon as change the that way you that walk, you become an inefficient mover and there's a direct correlation between the the you way walk and longevity.

So you have your bunion over here, right? So that's where you say, well, do I want to then have the surgery so I can protect this over there? Okay. But as it progresses to more and more arthritis and you're essentially bone on bone, the procedures that are available to you are now different.

I just decompress and create alignment of the toe and open up the joint and give you range of motion. because you have no cartilage in the joint. If I give range of motion to a joint with no cardilage, that is painful.

You cannot move bone on bone. That is why your body is locking it down by laying down spurs is because bone-on-bone, very painful, which means the procedure options if you wait too long start to become what's called joint destructive.

What that means is you have two main options. Well, technically three. First one is, you would do a joint implant. So it would be kind of like a join replacement where you think of a hip or a knee, is that you are putting an implant on the joint surface.

The bone that has no cartilage and is very painful raw, You are essentially putting the implant ontop of that. So there's no nerve endings on the implant and therefore you get the alignment, you the range of motion and you take away the pain, but you're putting an implant in.

Great option. The improvement of implants has been incredible over the last 10 years. So that is a great option Now, but if that implant fails, you have no choice but to do the second surgical option which is a fusion.

So you would essentially fuse your toe. If you fuse you toe, you will not be able to walk the way that you need to work over here. It's impossible. You fuse it.

There's a plate or two screws going through the joint. it is stuck. Sure, it's stuck with maybe 15 degrees extension, but we need 30 degrees extensions.

So you'll always compensate when you walk if you do the surgical procedure of a big toe fusion. Period, there's no way around it, right? So that's where you wanna think about the timing of the surgery or what are my options as I progress and maybe I waited too long and now I'm here and it's a limitess or a rigidess is they may need to fuse my joint.

The third option, which is truly a joint destructive, it's called the Keller procedure, and you actually cut out the base of the toe, so you essentially just have no joints.

They cut away some of your bone and your bones is essentially moving on soft tissue. It's an option. they do it a little bit more, much older patients, but those are options.

So when it comes to surgery, if you're thinking about surgery if, you are curious to get a surgical consultation with

myself, always have to look at surgery.

That's what's going through my mind as far as where is the arthritis? What's your age? what your foot type? it's too far progressed, there's different procedure options, joint implant, fusion, et cetera.

Your goal in this entire story of thinking about bunions, the progressive bunion, s the impact of bunians, please, go back to this. Go back walking. Walking a certain way is tied to longevity.

walking with long steps at a specific pace is tie to the longevity, that's what's going through my mind when I see every single one of my patients with a bunian.

I need to maintain that optimal level of function. So as we wrap up here, what I want you to think about this, the big takeaways is the importance of the Big Toe, The importance and the extension of The Big toe.

Remember, we need that 30 degrees. If we do not have 30°, We are going to compensate. We went through those different compensations. All those compensators are tied to changing the way that we walk.

if you have a bunion. A bunian is of course one of the most common presentations that we see that affect the big toe.

## Rocker Shoes and Final Takeaways

What are the causes of bunions? How do we prevent the progression of them? Are bunians progressive? Yeah, for the case they are. Are they genetic? Right?

Or are they caused by shoes? So we can start to create a more accurate framework around the Big Toe and bunions and essentially the progression of them.

Last thing that I want to leave you with has to do with a certain type of shoes that i will recommend to patients who have a limitus in their big toe and these are the rocker base shoes.

So If I have a patient that is flat out refusing to do surgery, has a limitis, and they're changing the way that they walk, one of the best ways to kind of modify, not say cheat the system, but essentially maintain as functional movement pattern as possible by using shoes is the rocker.

And this is where, I know you're probably saying, don't say it, the hoca. Hoka has helped make the rocker more mainstream and has a lot of people achieve that more appropriate step length by rolling through the shoe versus rolling to the big toe.

So if you have big-toe pain right now, if have a limitis, a very painful bunion, and it is painful with every step that you're taking, this is where you could consider rockers.

In summary, please, remember the importance of the foot. Remember how integrated it is. Your big toe is critical to the way that we stabilize our entire body.

And of course affects so many muscles up the chain, namely our glutes and our pelvis, which translates everywhere. So yes, you can connect your big toe to hand pain theoretically.

It is all connected. Remember to take care of your feet. remember to start everything from the ground up. And if you want to learn more about bunions, I do have various bunion programs that are available online.

If you are curious to get a virtual or an in-person consultation, virtual consultations, of course, they do those with people all over the world. In-Person Consultations are through my office in Phoenix, Arizona.

Please reach out. My website again is my name dremilyspickle.com. I hope you enjoyed and I will see you on

another episode.