Your Knee(s) Hurt, You've Been Told To Keep Moving. Now What? | #401



Full Episode Transcript

With your host:

Susi Hately

From Pain to Possibility with Susi Hately

Introduction (00:00.00)

You are listening to From Pain To Possibility with Susi Hately. You'll hear Susi's best ideas on how to reduce or even eradicate your pain, and learn how to listen to your body when it whispers so you don't have to hear it scream. And now here's your host, Susi Hately.

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Welcome and welcome back. I'm so glad that you're here because today I wanna talk about knee pain, particularly as it relates to squatting and lunging, and what's possible when it comes to actually improving your squat and your lunge and reducing or eliminating knee pain. Now, if what you are hearing today resonates with you and you wanna dig in more to it, I am running a Power of Pure Movement program in December on strengthening and gaining stability around the knees in squatting and lunging, and you can check it all out at functionalsynergy.com/knees.

And the reason why this is important is because how we used to believe the knees aged is different than now. So to begin with, it used to be that we believed that our knees, as we got older, would wear out like tires, and modern science is saying that that's not quite the case. Now, unfortunately or fortunately, depending on how you wanna look at that, there's actually a real disconnect between those two worlds.

For many people, there's a real fear, right? They maybe have big-time issues with their knees. Getting down to the floor and back up again is getting harder and harder. Squatting to pick up a grandchild is getting more difficult, and there's a niggling thought in the back of their mind: "Is this the start of the decline? Am I going to have to give some things up here?"

It's also very possible, because of the advances in what we understand about pain and pain science, that you might be hearing from a healthcare provider that everything's okay. Sure, yeah, your knees are sore; there's pain; there's some X-ray that is indicating that there's some joint narrowing. And they're emphasizing that all is okay, that the X-ray doesn't tell the whole story. And perhaps they're even saying that you should just keep moving because motion is lotion. And in what they're saying, they may also be providing you some pain science education where you're learning that the brain plays a role in how you experience pain.

And then you come into a lunge and your knee hurts, or you come into a squat—you're getting down to a chair or back up again, or onto the toilet and back up again—and your knees hurt. Okay, well, now what? Do you just keep doing it? I mean, obviously getting into a chair and onto a toilet is necessary, but do you keep doing the lunging? Do you keep doing what you're doing? Or, like, are you meant to ignore what you're feeling? Like, where do the feelings and the sensations—not the emotion piece, but the feelings of what we actually are sensing interoceptively and proprioceptively—are we meant to ignore those?

So there's a gap in my mind between what we used to believe, what we now understand, and how that really plays out in terms of helping yourself—and if you're a teacher, or a fitness professional, or a movement professional, like, how to really, really help your students. So this episode and the Power Up Your Movement course are really meant to help bridge that gap. And I've got a couple of client stories to share as we go through this just to give you some perspective here, okay? It's really important. I think it's super empowering, and there is a big, big gap.

So let's get into what we used to believe. We used to believe, like for decades, that as we got older, our knees simply wore out like tires on a car. And if you've, if you've been on the planet for long enough, knee pain will be inevitable. And if we see on an X-ray that things are wearing away, well, there you go; there it is. And there's also an aspect of that where that structure dictates function, and that structure means what you feel in terms of pain. More on that later.

Fast forward to today: we have a new view on what modern science sees about X-rays, knee function, structure, and pain. When we are shown a standard X-ray, we can see bones like the end of the femur or your thigh bone, the top of your tibia, the top of your shin bone, and you can see how much space there is between them. And so when the gap between those two bones—the tibia and the femur—when that gap appears smaller, we call that joint space narrowing. And the cartilage itself does not show up directly, so the width of that space gives an indirect clue about the cartilage in that part of the joint. Okay, that's a really, really important statement, right? It's an indirect clue.

And here is where science—modern-day science—gives us a little bit more of an expansive, perhaps even a hopeful picture. Two people can have similar narrowing on an X-ray and have quite different experiences getting up from a chair or coming into a lunge. So they can have similar structure, but different function. There's also more around the experiences of pain: so you can have small joint narrowing on the X-ray and have a lot of pain; you can also have the, the similar or same type of X-ray—small joint narrowing—and have no pain. And they've also found that you can have an X-ray where there isn't any joint narrowing and have pain, just like you can have an X-ray which has a, has a great-looking knee, but have no pain.

So here we can have... the X-ray can show what it shows, and it's not directly tied to whether you have good function or not, whether you have pain or not. So in many ways, this is awesome, because the structure does not dictate the function; the structure does not dictate the pain experience. But really, let's be super honest: it's enough to mess with your mind, right? Especially when we're coming off of decades, decades, decades of believing that structure dictates both function and pain experience—like, we see something that's not right, that's not structurally normal, of course it makes sense there's pain; of course it means that there is reduced function. But yet we have this other thing entirely where you can have people who don't have pain, or have a lot less pain and way better function, and have a very similar-looking X-ray. So again, it makes a lot of sense why it can totally mess cognitively and emotionally with people's states.

It also begs the question: well, if I have this structural scenario that doesn't look so good, but that structural scenario isn't related to the pain perhaps, perhaps that I'm experiencing, then what is? Like, I'm doing a lunge, I'm doing a squat—why do I have pain in my knee? And so what the science is now saying and really understanding is that knee function is impacted by what goes on at the hip, pelvis, as well as the foot. And from what I've seen with my clients, there's a huge correlation between knee function and actually the shoulder girdle. There's also a real impact for the tissue that's directly around the knee, and this is where the mind-body connection comes in: the pain experience can be highly impacted and influenced by how we interpret the sensations that we feel.

So let's relate this to some movement. So you can be coming into a squat or into a lunge and the knee hurts. And what I have found when I'm working with clientele is that there's things I can do to help them connect to the hip, to c- connect to the foot, to connect the foot and the hip, so we get better function overall between that whole kinetic chain between the foot and the hip. Consider what's going on through that pelvis, and oftentimes what we start to see is that the pain levels in the knee go down, the feeling of stability goes up, and sometimes even the depth of range can change quite dramatically. So that can happen when we change up the biomechanics between the ankle, knee, and the hip, because the knee really is the midway point between the hip and the knee.

And I, uh, in the past I've said, like, the, the knee's not really the knee. Like, if you really look at it skeletally, the top of it is the femur, the bottom of it is the tibia—which both connect to other joints—and then we have the kneecap, right? So the only thing skeletally that's unique to the knee is that kneecap. So then when you look at where those bones attach, what happens at the ankle and what happens at the hip are going to highly impact what goes on at the knee, which is why I think when I work with people's shoulder girdle, they're like—it's like freedom born within. Like, it's absolutely crazy what can sometimes happen. So when we change up the mechanics here—the way that our bodies load, the amount of gripping that we have, how we breathe—all of that plays into the way that someone can not only move and function, but what they actually feel in terms of sensation.

Okay, so now let's, let's dig into a little bit on the, on the pain piece. And this is an arena of rehabilitation that I, I want to spend more time on over the next number of months and even perhaps through the year of 2027, because there is a real gap here. It's, it's so powerful, but yet because we have had this past of believing that structure dictates function when it comes to, um, injury and pain and all of that, it c- it's, it's, it can be s- it can be difficult to, to make the bridge to realizing that when you see an image, it's merely an image in time—or as our resident PT Kirsten Richardson likes to say, the image, whatever scan you're looking at, is like saying, "Here is a telephone." We don't know if the telephone is ringing or not, right? We don't know if it's ringing or not. So there's still, still so much that we can do even with what we see in terms of the structure.

And this is where I like to dig into the sensory motor loop. So the sensory motor loop, the way I like to explain it, is the relationship between how we move and what we feel. When you get up

from a chair, you can feel pressure through your feet; you can feel effort in your legs. You might even feel a variety of sensations in through your knee: maybe you feel strong, maybe you feel unstable, maybe you feel grindy, maybe you feel wobbly. Maybe there's an anticipation that feels a certain way, right? Maybe there's a force or a strength that you're utilizing as you move up away from the chair and then back down again. So there is movement and there's a sensory experience of what you feel—and I want to distinguish this "feeling" word from emotional feeling; this is purely the sensation that you feel.

That sensory information goes up into our brain, and our brain interprets what that sensation means and the level of meaning that we should give it. Now, our brain interprets this with a number of different things: past experience, what we know about our knees, what we know about squatting and coming up and down from in, in a chair, experience with how the pain feels or doesn't feel. It looks at, um, just our general state of stress. It looks at the overall environment that we are in—from our history, our personality, and what we know about the anatomy and function of our knee. And based off of all of that information, there's then a response that it then gives out to how we move. So then we start to move based off of that information, and we have more sensory experience from moving in that way, and that sensory information goes back up into the brain—and that's the loop.

And all of this pretty much is happening without you even having to think about it. So we can be moving and having these experiences and interpreting the experience, and if our brain is interpreting the experience as being dangerous or threatening—in some circles of the pain science world, they call that a DIM, a danger in me—then if we interpret that way, then our experience of pain, our experience of fear is gonna go up. If we are experiencing what we're experiencing as like, "Oh, I've got it, like, there's, this is not a big deal," then it's more experienced as a SIM, or a safety in me, and then the experience of pain goes down.

So this is where it gets really, really interesting. Your experience matters, right? So if you've had pain in your knee the last 10 times you've come into a lunge, that history comes in with the next time you step forward or you come into the actual lunge, and you might find yourself hesitating or shifting some weight off that leg before you're even aware that you've done it. And if you're wondering whether this lunge is gonna hurt, well, then it makes sense that you might be going into the movement with a bracing experience.

And this is where I think a little bit of the gap arises. If someone hasn't really understood the role of the sensory motor loop, the role of movement, the role of motor control and coordination, the role of compensation, the role of really understanding what we are feeling sensorily—again, I wanna define that from the feeling emotionally right now—if someone hasn't really gotten great understanding about that, where someone can tend to land then is that the brain plays a role in pain; that the feeling of pain doesn't necessarily mean you're damaging your knee. And while all of that can be reassuring, here you are back on your mat, back about to lift your grandchild; you come into the lunge or come into a squat, and it hurts. So then what do you do? Do you keep lunging and squatting? Are you meant to ignore what you're feeling? And that becomes a bit of a quandary.

That sums up the gap so, so well, right? Like, we know that structure doesn't dictate function when it comes to helping someone get out of pain and improve from having whether it's some osteoarthritis or whether you, whether you've had a knee replacement or whatever. Like, we know that the structure does not dictate function; we know that the structure does not dictate pain necessarily. But then what? You've got the pain, you've got the anticipation, you've got the fear. Having someone say to you, "You're okay; you're safe," doesn't actually necessarily shift what you feel inside of yourself and then what to do next—and this is where I come in.

What I've noticed over time is what I can do very, very well—what my job is great at—is helping people to, number one, improve the way that they move so there's a different sensory experience. Remember, sensation goes up to your brain; your brain's interpreting that. So how about we provide different sensation to your brain? That's number one. So there's a couple parts to this. Now, first part is that the idea of a different sensation: so number one is I wanna help someone simply reduce their level of pain that they're experiencing. And typically, even with someone with a persistent level of pain, I can help them find movement where pain is either less or doesn't exist. And when I can do that—when I can help that person find that for themselves—we now have a different sensation. We now have a new platter, if we could call it, of sensory experience: there's pain experience, and then there's something that's a less-pain or a no-pain experience. That's number one.

Then we start to help them move more, and we recognize what contributes to that less- or no-pain experience moving to a pain experience. And what typically will happen in the line of my work is they'll notice a breath holding, they'll notice compensation patterns, they'll notice gripping patterns—they'll, they'll notice any number of ways that we can move that are not actually ideal. But the beauty of this, if I use the platter analogy again, is we're getting more and more ingredients on the platter, and out of that, we're understanding what contributes to the various sensations that we're experiencing.

I'm not going into the inter- interpretation phase right now; I'm simply helping grow someone's level of awareness so that they can understand and recognize—so it's really recognize first, and understand—the sensory world that is existing around their knee and is related to their knee. Do you see how powerful that can be? They don't just have one sensation that grabs their attention and off it goes to their brain and interpretation happens, and then onward they go; but rather they start to have more of a, a platter, a buffet of sensation, and they start to be able to tune into it. They start to recognize which ones feel better, which ones feel worse, what contributes to better and what contributes to worse. We haven't even gotten into the interpretation, but interestingly enough, out of defining what feels better and what feels worse, they're already doing the interpretation themselves.

So I'm not having to have a dialogue with someone saying, "Hey, you know what? Everything's fine and safe; you're good." I'm not a doctor, I'm not a PT, I'm not any of that—that's, that's not my role. My role is to help you move better. My role is to help you to become aware of your

movement and the various sensations that live inside of your body, because that is where your power lies.

So maybe you become aware of how much weight you shift off of a leg as you come up from the lunge. You've done the movement how many times, and maybe this is the first time you're actually allowing yourself, or giving permission to yourself, or actually feeling yourself do the movement. The "how" of how you're doing your movement is coming into your awareness. That sense of where you are and how you're moving is proprioception. It's powerful. And then that opens up the doors of interoception, or your awareness of what you're feeling internally. And you might notice, for example, that you've been holding your breath on the way up, and on the next round when you actually breathe on your way up, all of a sudden proprioceptively something changes, and sensorily the sensation you experience changes as well.

And as you practice this, you might notice that your coordination improves, and also some of the ways you compensate reduce, and then the way that your muscles of your legs take load changes. All of that is giving you a different sensation to experience. And then what arises is like, "Oh, this felt different. My knee felt easier coming up that time, and interesting—as I lowered down, my knee felt better, too." So this is, this like, this is so powerful, because I'm not trying to convince someone they feel safe. Instead, I'm in the gap between what we knew about knees wearing out way back decades over decades over decades into this new world of pain science, which is like, "Hey, you know what? Structure doesn't dictate func- dictate function, and guess what? Structure doesn't dictate pain," so we're gonna play in that world. What other sensory experiences do you have other than pain? And I'm not gonna, like, get you to list them off, but rather I'm gonna get you to move and move in a way that enables you to notice and then enables you to name.

It's where my red, yellow, and green lights come in—or if you've been listening to me for a while, how you've heard me talk about the screams and whispers. For a lot of people, what they're noticing and what they're really afraid of is the scream—of course, their knee hurts, right? But yet, as their awareness grows, they so often begin to recognize something else, maybe something that happens earlier, or in addition to, or as a compensation. And then over a few, few practices, they begin to notice, "Oh, when I start shifting off that leg, huh, that's when the knee starts to ache," or, "Oh, then I get to that certain point in the lunge and my pelvic floor starts—like, the rear part of my pelvic floor just starts to get so tight. Interesting: when I release that or let that go, my knee shifts."

So maybe that's the pattern I get to shift, and I've seen that countless times with clientele. Right now, they're starting to recognize the whispers before the screams. They've begun to recognize the relationship between how they're moving and how they feel. And guess what? That sensory information goes up to their brain, and guess what their brain starts to interpret? "Hey, this is pretty darn cool. We are now experiencing this wide range of sensation." I kind of feel like if you've watched the animation movie Inside Out, which is about, um, really emotions for a young girl and then as she goes into puberty, this is like the Inside Out for knee recovery, really—that would be really quite a fun movie to create, right?

But the point here is, as you grow this awareness of all of s- this experience, all of the, the data of this, of sensation—which it is, it's all data—that's what enables you to build strength in a way that really, really resonates with you, that feels safe. You don't need to create safety per se, but safety arises out of all this awareness that you have, right? And then you can make a better choice about what you do next—the depth of the lunge, the amount of load. This is what I mean by growing your awareness: you're learning through your own movement what contributes to the way that you feel.

So to give a few examples of clientele, here's a, a summary of what has been reported in as I've worked with people in my classes, right? There's, like, a strong correlation between hip function and the knee. The femur bone sits into that socket, so if we have, um, a funky movement pattern of that leg bone—and sometimes we can say that the abductors aren't working well, or the adductors aren't working well, or a combination of both, or maybe there's a tendency towards internal rotation—we can go there, but then we se- actually see that in the movement pattern, and we help them find the movement without that happening. That's when they will say, "Oh, wow, my knee feels better." And then from there, they build the range of motion with that awareness.

Now, what's different here is I don't go after, "Let's get those abductors firing; let the, let's get those adductors firing," or, "Let's stop the internal rotation." I'm not responding in that type of reactive way because, in my belief, if I say to someone, "Let's just get the abductor working or the adductor working," without really focusing on the "how" of the movement, then we're just compensating in another way, because if those muscles were actually engaging, they'd be engaging. Now, I realize that might sound very different, but ultimately what happens if we move better and we move well, those muscles start firing on their own, truly, without having to try.

Because the way that muscles fire is from a direction of the brain. So if I give the ingredients up to the brain, and we're in a safe environment because of our level of awareness, then oftentimes—and I realize I'm, I'm, I'm making this overly simple, so someone out there listening is probably gonna go, "Susie, you've made this way too simple"—but the way that I see it play out is a person starts to feel more and more and more confident, and we see their movement patterns getting clearer and clearer and clearer, and there is a correlation to the responsiveness of muscle engagement. So we're then not having to, like, go after muscles to engage. Because we're moving better, we start seeing them engage in a much more coordinated manner, and then we don't have to think so darn hard about getting muscles to engage—they just do it.

And we can do the same thing with the feet and ankles. Time and time again, what I've seen with clientele is that as they've improved the way their big toe functions, for example, the way that their ankle moves as they load it through a walking pattern, that can change what happens in the knee; and you blend that together with what goes on at the hip, we've improved that kinetic chain. A really recent one was with a client who we dis- we discovered just how sticky her shoulder blade is, and as we started to play around with that shoulder blade with a variety of movements—not using the ball, interestingly enough, but a variety of movements between the

arm bone and the blade and the rib cage—she was on the floor; when she came back up off the floor, she just kind of jumped up and she's like, "Wow, I just feel really buoyant and solid, like I'm ready to go for my walk." So it's, it's, it's those kinds of experiences that can be had.

And to make this successful, you, as a student of this process, you do need one particular characteristic, and it's curiosity. If you're willing to sort of step back in your mind and just watch the way you move, notice the way you feel—kind of like you're watching the sunset, or a sunrise, or watching children play—and just being curious about what's happening in front of you. And I can help you get there for sure, but if you, you need to have a modicum of interest of being curious, because it's, it's in that curiosity that you start to recognize so much, so much of what contributes to the pain—because we know it's not necessarily structure.

But what contributes to the pain is under your level of awareness. You've gotta be curious enough to allow for that sensation to arise, and you've also gotta be willing to not jump on "what does this sensation mean?" Your sensation is your subjective experience, and as we map out more and more of your subjective experience, it will become clearer. But you've gotta be willing to step back and start to see and recognize the platter and the sensations that's present, and change absolutely will happen. It's happened over 30 years for my clients; it's happened enough that I can't ignore it.

So if this is interesting to you, then I encourage you: come join me. Power Up Your Movement—we're gonna build some strength and stability with your knees in lunge and squats with ease and solidity, with curiosity. Check it out: functionalsynergy.com/knees. I hope to see you there.

All right. So if that episode was interesting to you and is somewhat curiosity-building, and you're a yoga teacher, a Pilates teacher, a health professional who wants to do this for your clients, take the knee program, but also consider the therapeutic yoga intensive, because that's really where you learn how to do this with your clients. The next intensive happens in April 2027, and you can learn more over at functionalsynergy.com/intensive. I hope to see you there.