Ep. #318 - Core is Not a Muscle; It is a System



Full Episode Transcript

With your host: Susi Hately

From Pain to Possibility with Susi Hately

Introduction 00:00:01 You're listening to From Pain to Possibility with Susi Hately. You will 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.

Susi 00:00:23 Welcome and welcome back. I'm so glad that you're here because today I want to talk about something that gets said in almost every single yoga or movement class. And it's something you've probably heard dozens and hundreds of times, and perhaps you even use these words yourself; and those words are "engage your core." And I get why it's said and it's often well meaning, this idea to support the spine, stabilize the pelvis, and help people feel strong or grounded. But here's the thing: the core is not a muscle, it's a system. It's not a single part that you turn on and off. It's not a spot you grip and hope for the best. The core is an integrated, coordinated conversation; a relationship; a system of muscles, fascia, breath, pressure, timing, and perhaps most importantly, safety.

Susi 00:01:16 And yes, of course, at a very basic level, your core supports your back. It keeps you upright. It offers structure. And that's just the beginning. Perhaps it's the baseline. There's so much more available when we stop thinking of the core as a singular thing to engage and start relating to it as a system we can listen to. Because when the system is coherent, when the core is coordinated, we gain access to something really powerful. The body becomes adaptable, responsive, fluid. As I like to say, and I wrote about in my first book "Anatomy and Asana: Preventing Yoga Injuries," you can move from fast to slow and slow to fast. You can pivot, change direction, absorb force and generate it again without strain. That is true core function. That's where agility and ease live. Nimbleness too. So today's episode is about redefining this relationship, about shifting from bracing to breathing, from gripping to guidance. And I'll say this up front because it's important: this isn't about abandoning strength or stability.

Susi 00:02:21 It's about recalibrating how we understand it. Because the strongest systems are not the tightest. They're the ones that can respond, adapt, and release just as easily as they can contract. So let's begin with a breath. Not a performative one, one that you can feel. Let your body guide you. Let's start to unpack what the core actually is, because the way I was taught initially, and the way many people still think about the core, is that it's this zone; a specific muscle or collection of muscles. Usually many people think of it as the abs or the back, or the obliques. Sometimes people throw in the glutes for good measure. And then from the mental model, we get all sorts of cueing: pull your navel to the spine; tighten your belly; squeeze your ribs in; brace your core. But if you've tried those cues and still feel unstable, tight, or even in pain, you're not alone and you're not broken. Those cues are trying to micromanage something that's supposed to be coordinated.

Susi 00:03:29 Let me say that again. Your core system isn't meant to be controlled, it's meant to be coherent. It's a system of signals, not a solo instrument. And when we reduce it to a single muscle or a mechanical engagement, we actually get in the way of its function. Let's look at what the core actually involves. We can start at the top with the diaphragm. Not just for breathing, but for modulating interabdominal pressure. And let me just say, when I say top, I

mean the top of the inner core. There's also the pelvic floor, which co-regulates with the diaphragm to support not just organs and continence, but also posture, breath and pressure. We also have the transversus abdominis, often touted as the girdle muscle, which wraps around like a corset but doesn't work in isolation. There's also the multifidus; deep spinal stabilizers that subtly respond to movement before you even consciously decide to move. And then there's the connective tissue, the fascia that links all these parts together and gives the structure its shape.

Susi 00:04:37 Now what's cool, I have to say, about the transversus abdominis and the diaphragm to start, is that there is a weaving of the transversus abdominis in with the diaphragm. So if we're not breathing super well, that can impact, perhaps, the way the transversus abdominis engages. So there's a really significant and cool coordinated relationship that can be built and cultivated between these four structures, including the connective tissue that weaves together and links these parts. Add in, now, intercostals sitting between the ribs, the obliques, the rectus abdominis, the thoracolumbar fascia, and even the muscles of the jaw and the tongue. And you start to see how the body can organize itself around pressure, tension, timing, and breath. But even that list doesn't quite capture it. Because what ties all this together is not anatomy alone. It's function; it's communication. A true core system is about timing. It's about subtle sequence and feedback. It's about the way your breath shifts as you reach forward, the way your pelvic floor and diaphragm coordinate as you change levels, the way your deep stabilizers subtly fire when you turn your head or change your center of gravity.

Susi 00:05:57 My point is this is not something to "engage" per se, but rather something to feel, refine, and rebuild from the inside out. It's subtle and it's also strong. And what I've seen over and over again is that when people start to relate to their core as a system, when they begin to listen rather than just tighten, their strength shows up in ways they didn't expect. Balance improves, pain decreases, breath deepens, transitions get easier, and they feel not just stronger, but safer, more capable, more at home in their own body. Because that's the thing: strength doesn't always feel like tightness, and I wonder if it really should or ought to. I like to think of strength feeling like space and support. Ease, fluidity. Like the breath has the ability to move all the way down and up again. Consider maybe, strength is also knowing when not to grip. And that brings us to something really important. Most of the tension people carry in their bellies, that low grade holding, that almost invisible clenching; it isn't strength.

Susi 00:07:13 It's protection. It's the nervous system doing its best to create stability in a system that doesn't feel safe. Bracing, anticipating, containing. And if we layer cues like "engage more" on top of that bracing, we don't help. We actually reinforce the pattern, which is why in the next part of this episode, we're going to explore what happens when we stop gripping and start listening. What happens when we shift from bracing for movement to preparing for possibility? Because the core is not a fixed point. It's not a red light, it's not a wall. It's a crossroads. And when it's integrated, you can move in any direction with less effort, more ease, and a whole lot more trust. So consider then, "core" is not a muscle; it's a system. As we continue, if we consider that core isn't about bracing, what is it actually doing? The core's job at its most fundamental is to respond; to feel, to adapt; to stabilize without rigidity; to move with, not against, the forces acting on your body.

Susi 00:08:23 And I want to be clear here: this doesn't mean there's no engagement. It doesn't mean that we flop around. What it means is that the quality of engagement changes. It moves from being a clenched, preemptive gripping to a dynamic response of adaptability instead of tightening before anything happens, your core is ready to respond to what actually does happen. It's a massive difference. It's the difference between clenching your whole abdomen in anticipation of a movement versus allowing subtle, specific adjustments that meet the moment. Let's unpack the distinction between bracing and responsiveness, because the difference is really, really, really important. When you brace, you're usually tightening globally. It's a widespread contraction often of muscles that don't even need to be involved. You tighten the obliques, you hold the breath, the glutes clench, the neck gets stiff. Maybe even your jaw locks up. It's like trying to keep a balloon from flying away by squeezing it on all sides. Sure, it won't move much, but it's under constant pressure. It's rigid, fragile even.

Susi 00:09:30 And if the load shifts suddenly, if life throws you a curveball, you have no adaptability left. No shock absorption. You snap, you strain, you hurt. Responsiveness, then, is different. It's the body's ability to sense load pressure direction and adjust accordingly. Subtly. Elegantly. Precisely. If the balloon analogy holds, it's like holding the string lightly, just enough tension to guide it, but enough "give" that it can dance with the wind. This is true core strength. It's not about holding yourself together through force. It's about staying coherent through change. Imagine this: you're walking down the street, maybe carrying groceries, thinking about dinner, and suddenly you trip on an uneven sidewalk. What happens? If you have a responsive core system, there's almost an immediate subconscious coordination. Your foot adjusts, your center of gravity recalibrates, your arms move out to balance, your breath catches and then deepens and you recover. Maybe you wobble for a second, but you catch yourself. Your core system responded. It adapted without you even thinking about it.

Susi 00:10:35 If you have a braced core, if everything is locked down in a preemptive contraction, it's harder to adapt. You're more likely to stumble hard, maybe even fall. The system was too rigid to respond. This is why bracing isn't protection. Coordination and timing and ease? Those are your safeguards, which is why I keep coming back to one of my favorite lines: your core helps you move from fast to slow and slow to fast. To be agile and nimble. It's not just about holding your spine together, it's about shifting gears. Dancing with gravity. Living. So then why do we default to bracing? You might be wondering if responsiveness is so much better, then why do I brace? Why do so many people brace without realizing it? It's a great question, and the answer in many cases is protection. When the nervous system perceives threat, whether it's physical, emotional, or even imagined, the body prepares; it locks down. It creates stiffness to create the illusion of safety. In a way, bracing is brilliant.

Susi 00:11:37 It's the body's attempt to create immediate stability when it's not sure what's coming next. But here's the catch: bracing is a short term solution. It's meant for quick moments like a car accident, a sudden impact, a reactive startle. It's not meant to be a chronic state. So when bracing becomes chronic, when it's layered into our movement, our posture, even our breathing, it stops protecting us and it starts limiting us. It keeps us stuck in patterns of rigidity,

fatigue, pain, and disconnects us from true strength. So there is a new way in and it's relearning responsiveness. The good news is the body wants to be responsive. The system is designed for it. We don't have to build responsiveness from scratch. We just have to uncover it. And it usually starts with a few simple shifts: feeling the breath move through the ribs and belly; noticing when you're gripping unnecessarily; exploring movements that invite adaptability rather than rigid control; allowing for pauses and spaces between movements to notice how the body organizes itself.

Susi 00:12:39 This is not about forcing anything. It's about inviting the system back to coherence. It's about trusting that your body knows how to respond when given the chance. And sometimes, especially early on, it can feel weird. You might feel less "tight" and mistake that for weakness. You might feel less "held" and wonder if you're doing it wrong, but stay with it. Strength built on adaptability is a different kind of strong. It's subtle, yes, but it's powerful and sustainable. And it changes not just how you move, but how you live. Because when your core can respond instead of brace, your whole body starts to trust itself more. You recover faster. You move with less effort. You feel more easeful, more powerful without having to try so hard. And in a world that constantly demands more effort, more speed, more holding it together, this kind of ease is revolutionary. So where we're going to go next is to explore how the core system is tied directly to the nervous system and why safety, breath and true support can't be separated because when we really understand this connection, it changes not just how we train the body, it changes how we listen to it.

Susi 00:13:51 Let's keep going. Now that we've started to shift our lens from bracing to responsiveness, it's time to dive even deeper into something that honestly changed everything for me when I really understood it. And that is: the core system does not exist separately from the nervous system. You can't separate breath from safety. You can't separate movement from protection. You can't separate the core, that central organizing system, from how your body feels inside of itself. Your core system is a direct reflection of your nervous system state. Let me say that again, because it's so important: your core system feels. When someone's core feels disconnected or they can't engage without gripping, or they feel chronically tight, it's often not a strength problem. It's a safety problem. Their system is saying "I don't feel safe enough to release. I don't feel safe enough to breathe all the way down. I don't feel safe enough to move with freedom." So instead, the body holds.

Susi 00:14:53 It protects. It stiffens. Not because it's wrong, but because it's wise. Because it's doing the best it can with the information it has. Bracing? You can consider it as a survival strategy. Think about it this way: if you're walking across a frozen pond and you're not sure the ice will hold, you stiffen up, right? You move cautiously, tense, braced. You're not flowing and striding and dancing across the ice, you're holding yourself together because you don't trust the ground beneath you. Now imagine you're on solid ground: you don't even have to think about it. Your steps are fluid, responsive, easy. Your system trusts the ground so your body can move more naturally. This is exactly what happens internally when your nervous system feels safe. The core system naturally coordinates, and when it doesn't, the body defaults to bracing, to

holding itself together because it doesn't trust the ground inside itself. And here's the kicker: no amount of "engage your core" cueing will override that fundamental need for safety.

Susi 00:16:01 You cannot bully the body into trust. You have to build it. You have to invite it. You have to listen for it. Breath truly is a barometer. So how do we know where we're operating from? How do we tell the difference between a body that's truly engaged versus one that's braced? One of the simplest and most powerful indicators is breath. Breath is like a nervous system barometer. It tells you instantly and honestly what's happening inside. When the core system is coordinated, the breath moves freely; ribs expand; belly responds naturally; pelvic floor shifts subtly with inhale and exhale; there's space. When the core system is braced, the breath gets caught; shallow in the chest, tight in the belly. Maybe even a feeling that you can't get a full inhale. And it's not just during deep breathing exercises or even simple, straightforward, natural breathing exercises. It shows up during simple movements: reaching, twisting, standing, shifting weight. If breath holds during movement, it's a clue.

Susi 00:17:16 It's the body whispering "I don't feel fully supported here. I'm managing, but I'm not flowing." And when we notice those whispers, when we pay attention, we can respond. We can slow down, soften, support; invite a different experience. This is where the real magic happens. Restoring safety. Restoring responsiveness. When we create conditions of safety and breath, load and movement, the body begins to repatriate itself. You don't have to force the core to work better, you invite it to remember. You allow the system to feel stable enough, safe enough, connected enough that responsiveness returns. The diaphragm and pelvic floor begin to coordinate naturally. The transversus fires up appropriately. Deep stabilizers wake. The breath deepens. The center of the body becomes a dynamic, adaptable, responsive hub again, not because you told it to engage; because you gave it a reason to trust. So let's consider this idea of strength without strain. I want to pause here and say something that might sound simple, but it's actually profound: strength does not have to feel like strain.

Susi 00:18:41 Strength can feel supple. It can feel spacious. It can feel deeply alive and not locked down. And when the core system is integrated, that's exactly what strength feels like. It's not rigid, it's not exhausting. It's not a battle. It's a presence, an intelligence; a kind of steady, responsive support that moves with you. It's being strong enough to stand tall, and soft enough to breathe fully at the same time. It's being able to shift gears from fast to slow, slow to fast, without losing your center. Its true core function, and it's available to all of us not through more effort, but through deeper listening. So let's consider then, how the core isn't just about stability, it's about regulation. How it acts in a case like shock absorber, a stabilizer and accelerator all rolled into one. And why the ability to transition, to move from effort to ease, tension to release, is one of the greatest signs of an integrated intelligent core system. Because when your core is integrated, your whole body becomes more coherent.

Susi 00:19:51 And from that coherence, movement becomes not just easier; more joyful, more human, more free. Let's keep going. Now that we've talked about responsiveness, nervous system safety and breath, let's take it one step further because the core isn't just a stabilizer, it's a regulator. It helps you manage transitions, not just physically but physiologically. It's what

allows you to absorb force and then generate it again. It's what lets you shift from tension to release from stillness to motion, from effort to ease, smoothly without feeling like you're battling your own body. The core is like your body's shock absorber and accelerator. It's both at the same time. And this dual role, this capacity to regulate, that makes the core so essential for true agility, resilience and longevity? This capacity is powerful. Let's first talk about the core as a shock absorber. Imagine you jump down from a small step. What absorbs the impact? Sure, your legs play a role of course; so do your feet and your core system. That dynamic interplay between diaphragm, pelvic floor, abdominals, spinal stabilizers is crucial.

Susi 00:21:01 It helps distribute the load. It buffers the forces that move through your body. It dampens the impact so no one structure, no one muscle, no one joint bares at all. When the core system is responsive and integrated, this happens naturally and effortlessly. But when it's braced, when everything is rigid, the forces don't distribute well. Shock goes straight into the joints: the low back, hips, knees, neck. And over time, that kind of unmanaged force takes a toll. Pain. Injury. Chronic tension. The body was never meant to absorb life impact through rigidity. It was meant to respond to them with elasticity, timing, grace. That's what a healthy core system allows. Now, on the flip side, the core isn't just about absorbing forces, it's about generating them too. It's about acceleration, power, action. Imagine you're sprinting toward a ball on a soccer field, about to make a quick cut and change direction. The ability to accelerate into that movement, to create powerful forces in a specific direction, and then cut quickly and change direction, relies heavily on your core system. Not because you're gripping your abs, but because your center is coordinated enough to channel that energy efficiently through your limbs, down to your feet and hands, and back into the center again.

Susi 00:22:28 The diaphragm coordinates with the pelvic floor. The abdominals engage in a sequenced way. The spine stabilizes dynamically. The pelvis adjusts responsively and that energy moves, as I mentioned, through the limbs to the hands and feet, up to the head and back into the center again. A systemwide, beautifully timed activation. And what's amazing is all of this can happen without conscious thought. If the system is allowed to organize itself, then we build responsiveness, breath capacity, and nervous system safety. That's when the body starts to trust itself more. That's when the body starts to trust itself to move. You don't have to think your way through every movement. You don't have to manually cue specifically every muscle. You simply move. Fluidly, powerfully, and with ease. Imagine how your brain feels and how much thought can now be moved towards other creative endeavours when you're not having to manually cue every muscle. This moves us into the art of transition fast to slow, slow to fast and brings us right back to one of my favourite concepts.

Susi 00:23:38 The core helps you move from fast to slow and slow to fast to be agile and nimble. This ability to transition to change states quickly and smoothly is a hallmark of a healthy integrated core system. It's not just about being able to move fast. It's not just about being able to hold still. It's about being able to shift gears effortlessly based on what the situation demands. Catch yourself when you trip? Core responsiveness. Decelerate smoothly from a sprint? Core regulation. Shift from a powerful yoga pose into a soft easeful child's pose? Core adaptability. Move from a heated conversation into a ground-centered state of presence? Yep. Even there,

your core system is involved because it's not just about muscles, it's the whole sensory motor loop. It's pressure, it's breath, it's nervous system tone, it's connection. It's your body's ability to move with life, not against it. When a core system is doing its job as a regulator, you tend to notice certain things. Movements feel smoother and less jerky. You can change direction without feeling hesitant or braced.

Susi 00:24:48 Breath remains fluid even as effort increases. Recovery after exertion is quicker. Stability feels like presence, not tightness. Strength feels expansive, not compressive. In short, you feel more like yourself. You feel more capable, more adaptable, more whole. And what's beautiful is this kind of core function is available at any age, in any stage and after any injury, when we approach it with respect, patience and listening. Our system wants to organize itself. Our job is to clear the way. Of course, the opposite is true; and this is the cost of ignoring regulation. When the core system isn't regulating well, when it's stuck in chronic bracing or the diaphragm-pelvic floor relationship is disrupted or compensations have layered in, we start to see breakdowns. Fatigue after minimal exertion. Chronic pain despite endless core strengthening exercises. Pelvic floor issues. Shallow breathing patterns. Difficulty shifting between high and low effort. Fear of movement. Fear of falling. Fear of change. Not because people are weak. Not because they're broken.

Susi 00:25:57 Not at all. But because the system is out of sync and often they've been trying to fix it by doing more more core exercises, more tightening, more bracing without realizing that what's needed is often less. Less but better. Less force, more listening. Less gripping, more breath. Less controlling, more allowing. That's how regulation returns. It's how true core strength is rebuilt. Not from the outside in, but from the inside out. Which leads us to the next section on what this really looks like in real life. We're going to get a bit more practical, and I'll share how these concepts show up when working with real people. How I recognize when someone's core is not coordinating. The common signs of signals I look for. And simple ways to begin to reawaken the core system without forcing or over-cueing. Because this isn't just theory. It's lived, it's felt, it's real. And when you start to see it and feel it, everything changes. Movement becomes a conversation, not a command.

Susi 00:27:01 Strength becomes a presence, not a performance. And your relationship with your own body? It deepens. So as we get practical, let's think about breath. Responsiveness and regulation. It's not a philosophy. It shows up in real, tangible ways when we're moving and teaching and living inside our bodies. Let's take a look at when the core system is out of sync, and what it looks like when it's waking back up again. One of the first signs I noticed when someone's core system is not fully integrating is how they breathe when they move. If someone holds their breath during basic movements like lifting an arm overhead, stepping forward into a lunge, or rolling up from the floor. Even just simple on-your-back biomechanical granular movements that I often do in the early phases of my yoga therapy clientele work. All of that's a clue. Breath holding is often a compensation for a lack of coordinated support. The body knows it doesn't feel stable, so it reflexively creates internal pressure by holding the breath. The fake stability?

Susi 00:28:13 It's not wrong. It's brilliant and protective. It's providing some version of stability, even if it's not really, really effective. It's protective, and it's also a sign that the underlying system needs attention. Other signs of a disrupted core system is gripping through the obliques during movements that really shouldn't require so much effort. When the feet start to grip and the toes start to grip, or the overutilization of the feet in movement. This is often a reflection of a body that's trying to create stability from the ground, because it doesn't feel it at the center. The same for locked jaws or facial tension, pelvic instability, or even delayed reactions. The body is recruiting anywhere it can to feel safe. Shifting or tipping during weight shifts into balance poses, or even slight lags between intention and movement, like the system isn't quite confident in shifting gears. And here's an important one: overcorrection in a posture. When someone is desperately, in a sense, trying to stand tall or sit up straight but you can see the rigidity, the holding, the exhaustion behind it, that's not true core support either.

Susi 00:29:25 It's compensatory bracing because true core support isn't stiff. It's supple, dynamic, and it moves with you. So what are some signs that a core system is reawakening? Well, essentially we get to flip this conversation. When the core system reawakens, when coherence begins to rebuild, here is what we notice: there is an ease in the movement; breath moves more freely; movements become smoother. There's a fluidity between initiation and completion, with fewer jerky stops and starts. Subtle shifts in balance can just feel so much more coordinated. You can shift weight from foot to foot without feeling like you're going to fall. Ribs in the pelvis move more naturally with the breath, and strength really feels internal. People describe it like a quiet steadiness rather than a loud bracing. It's the difference between feeling like you have to hold yourself together versus feeling like you were held together by design, like the body has trusted itself, or at least has begun to. And movement becomes not just possible, but pleasurable.

Susi 00:30:45 How can we support this core reawakening? How can we help this process along? How do we guide people or ourselves back to this responsive, regulated, integrated core system? It starts with small shifts; simply noticing subtle invitations. Simple ones. Notice breath during movement. So rather than cueing core engagement, invite people to notice their breath when they move. So as you lift your arm, notice if your breath changes. As you step forward, can you stay connected to your inhale and exhale. As you're moving from Tabletop into Downward Dog, can you stay tuned in with your breath and move as easy as possible without having to brace? This kind of noticing does more for core integration than a thousand crunches ever could, because it brings awareness to the coordination that's already trying to happen. I love this idea of inviting less effort, but in a very specific way. Can you do 10% less and still have the same result? Because anybody can do less, anyone can soften just a little bit more and not have the same results.

Susi 00:32:01 So can you enable this ease while you move? These kinds of invitations can create space for the nervous system to recalibrate by reducing the background bracing so that responsiveness can emerge. Focusing on transitions, if you're working with people between poses, between steps, so much can be told and revealed. So rather than focusing only on static positions, pay attention to what happens between those positions. Can you be connected with

your breath as you move from standing to sitting? Can you feel your feet as you shift from side to side? Not about perfect form, but rather connecting. Finally, and maybe most importantly, trust that the body wants to coordinate. The nervous system is built for coherence. The core system is built for responsiveness. When we reduce unnecessary tension, offer supportive environments, and invite subtle awareness, and the system will often reorganize itself. We don't have to micromanage every fiber, we have to listen; guide, support, allow. And sometimes the most powerful thing you can do for someone's core integration is to simply get out of the way.

Susi 00:33:20 So let's bring it all together as we wrap up why core integration is about guidance, not gripping. How moving from survival bracing to responsive coordination is a doorway to strength, ease and trust. And while ultimately your core isn't about physical movement, it's about your relationship to yourself. Because the truth is, the core isn't a system solely of muscles; it's a system of trust. Breath by breath, moment by moment, everything changes. As you take these ideas back to your mat, whether as a student or as a teacher, remember: core stability is all about moving from fast to slow and slow to fast. Being able to change direction go down to the floor and back up again. Nimbleness and agility. We want to foster that capacity and that capability. If you are bracing through that, it's going to be difficult to train for nimbleness and agility. So even when you're moving small, if you're cultivating that ease and that softness, that idea of doing less but still having the same result, you'll then bit by bit, in actually probably a lot quicker time than you can imagine you'll move into that agile, nimble space.

Susi 00:34:33 That lighter, more grounded, clearer space where you can feel that core strength, that core stability from the inside, radiating out through to the hands and the feet, the tips of the toes to the tips of the fingers, and up to the head. An integrated whole. Because core is not a muscle, it's a fully integrated system. Now here, what gets really cool: if you are ready to really understand movement and nervous system mechanics so you can help your students move better, feel better, and get out of pain all through the lens of yoga and yoga therapy, I'd love to invite you to join 'I Love Kinesiology.' Inside you'll learn a very embodied and holistic approach to anatomy, biomechanics, neuroscience, gait training and strength, along with observational skills that make therapeutic yoga actually work without rigid alignment rules or overwhelm. Just head over to functionalsynergy.com/ilk. And that's for 'I Love Kinesiology.' Again, that's functionalsynergy.com/ilk. I can't wait to see you inside.