

Ep #150: Exploring Your Breath Part 8 – Mechanics of Breathing: The Relationship of Your Quadratus Lumborum and Breathing



Full Episode Transcript

With Your Host **Susi Hatelty**

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Male Announcer: 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.

Welcome and welcome back. With this episode I want to explore the quadratus lumborum as it relates to breathing. This is a part of my ongoing miniseries on exploring your breath, which is the lead-up to my Mechanics of Breathing program that begins on January the 16th.

So as you're listening to this episode and you're finding that what I'm saying is really resonating with you, I encourage you to join me. You can also go to this episode's website and you'll see the previous episodes as well as other episodes I've recorded on the QL.

I've spoken a lot about the QL, I've written a lot about the QL, there's some of my blog posts that have found their way to many different corners of the internet world, so I'll have a lot of people emailing us about what they can do about their QL. And sometimes breathing comes up, sometimes it doesn't come up.

I want to utilize this episode to bring it up because it's a really interesting exploration with my clientele who typically have persistent issues of pain, and along with persistency of pain there is more often than not a breathing issue at play. Whether that breathing issue has led to the persistency or whether the breathing issue has resulted because of the persistency I don't know.

But when we can enable a resolution or some type of resolving of the breathing pattern, that the QL can also resolve but also shifting up the QL can resolve the breathing, right? So I'm kind of tripping on my words there a little bit because it's not necessarily that the breathing changes the QL, although it can, and it's not that QL changes the breathing, that that's the linear path, it can be either.

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More what it is is that there's a real interesting curiosity between the two, between the breath and QL and the persistency of pain. And that as people get to understand and know their QL, as they get to understand and know their breath they see this interaction and they see this relationship that becomes very, very, very curious.

So to say that this episode is really geared for people who know that their QL is involved in their persistency of pain, that would be an accurate assumption that you're making. And if you, maybe you don't know but you're curious, then this is a place for you to explore as well.

So I'm going to be talking about the anatomy, some of what the anatomists say about the relationship of the QL to breathing, which you need to know that there's conflictual ideas about it, which is the same in all of anatomy, really. And then have it open the door to a somatic experience for you to tune into your own QL and your own breath, okay?

So when we take a look at the QL we're looking at its attachment points at the pelvis and the lower rib, as well as onto the transverse processes, the lumbar spine, L1 to L4. So when we're looking at its movement, when we look at the right QL for example, it will side bend to the right, pulling the right ribs down towards the right pelvis or the right pelvis up to the right ribs. I mean it could pull both together. It could both the ribs and the pelvis together on that same side.

Now, when the two sides bilaterally QL engage, they will extend the spine. Although the force for actually doing that is really, really low. So it's not considered to be a very strong extensor, but the muscles do do that when it's a bilateral engagement of both sides of the QL, okay?

The QL is also an incredible compensator. I like to call it the superhero of compensation because it will come in when we have difficulty with swinging that leg through on the hip socket and will hike that hip. When the shoulder girdle is not functioning well, it can get right in there and help you with some bracing patterns of the ribcage to make that shoulder girdle function better.

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I've seen people over utilize one side of the QL to create a bracing pattern between the ribs and the pelvis to help build up or develop some kind of stability, even if it's not the greatest stability. But some type of bracing pattern to enable you to push weight over your head or out in front of you. So it's not uncommon for CrossFitters or other weight lifters to develop QL issues. It's also not uncommon for skiers to develop QL issues because of their hip function not being as great as it could be.

Those are just some examples that I've seen. Same with cross country skiers, same with water skiers, runners. I mean lots of people will have QL issues because the QL has swooped in with its superhero cape on to try and enable a person to do what they need to do to live their greatest life and to get on with things.

And what's important to also understand is if we want to resolve a QL issue, we need to understand what's not in our level of awareness. Because the QL as a compensator, is compensating for things that we're not aware of. So in the process of settling through the QL, the process in the context of this episode of settling through your breath will likely bubble up other things in your mechanics.

And sometimes when people do that, they get frustrated by their body, whereas I see that as all really good news. So I am prepping you for if other things start to bubble up, it's not meaning that there's anything wrong necessarily happening. But rather that which is under your level of awareness is now starting to bubble up. And that is something to pay attention to, perhaps to take some moments to resolve.

And it wouldn't surprise me if you also start to notice a shift in your breath and a shift in your QL, right? Because, as I've said before, where the pain is, is not the problem, it's merely an expression of a problem. And I have yet in my whole career to see that anybody has one muscle being at issue. Now granted, my clients are clients who have persistency of issues, right, persistency of pain, so there's lots going on typically. So it's not ever one muscle that's at play, okay?

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When we're looking at the QL as it relates to breathing, it becomes really interesting, particularly where it's attached at the lowest rib. Some will say that it interweaves with the diaphragm because it has attachment points that are synonymous or similar, or next to, or overlapping with the diaphragm, depending on which author that you read.

So there can be a very, very close proximity between the diaphragm and the quadratus lumborum, to the point that some will say that it provides this stabilizing effect on the diaphragm. Which can be interpreted as meaning that it will hold that rib down to enable better inhalation or it might hold that rib down to enable better exhalation. Again, depending on the author there's a different viewpoint of what that role is.

But it does become super interesting to see where those attachment points are and how they interweave. But not only that, when we zoom out just a little bit we see how the QL is a part of the thoracolumbar fascia. And the thoracolumbar fascia, according to some, is this primary postural stabilizer. They're layers of muscles and fascia, and I like to think of the thoracolumbar fascia as connecting the upper extremities with the lower extremities.

So there's this force transfer between the upper and the lower, and the QL is a part of this. So it's important to see that because, again, what I'm highlighting is that it's not just one muscle to work on, but it's this relationship to a bigger whole.

And while the thoracolumbar fascia is not the biggest whole when it comes to our body, and when I say whole I mean W-H-O-L-E, it is a bigger relationship. So we can start to zoom way in and see the attachment points, but then zoom out a little bit and see its relationship to more. And it starts to highlight more and more of this relationship.

We start to see how we can really create a lot of tension in through this area of the body in order to create more stability. Even if it's not the greatest quality of stability, it can create a level or a quality of stability to enable us to do things.

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Now that kind of stability, which isn't the greatest quality perhaps, that can have an impact on the way that we breathe, right? So if we've got a bunch of tension pattern in and around that lowest rib and it's limiting our ability to inhale or exhale, that's going to have an impact on our ability to breathe. That's going to impact our mechanical pump.

It's going to impact the ability for that air that's sitting in front of our face, it's going to impact the ability of that air to go in and the air to go out. So you start to see this relationship to, huh, it's curious to start to gain an understanding of how these tissues attach to certain structure and how that can impact that flow of inhale and exhale.

It also highlights how if you are someone with QL issues, when you start to breathe a bit better, that you'll notice that the QL issues start to shift. So I've seen two things happen, that as the QL starts to function better I've seen people's breathing improve, and then their voice quality starts to shift. And I've also seen how people will work at improving their breathing, either through a very standard breathing practice or through a pranayama yoga practice, and then their QL, if there was issues there starts to shift.

So I've seen it happen on both sides. And the mechanics overall between their upper body and their lower body starts to change, in part because of the way the tissue dynamic has started to change. And also the way the nervous system is playing in between these tissues and with the breath.

So there's just this overall connection to what's going on between the ribs and the pelvis, as well as the way the diaphragm is functioning and the way that that air is moving in to your body and then out of your body.

So to take this into an exploration, if you can, bring your hands to the lowest part of your ribs, if you can find that lowest rib. So your hand is on the backside of you between your spine and your side. And your hand being on your back, you can feel where that lowest rib is, and just kind of gently press or poke around there. I know poke isn't the gentlest word, but see if you can be gentle with it.

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And then notice if there's any points that are a little bit tender. And then be sure to go to the other side and do the same thing. And simply by pressing your fingers into this area of your body, notice if just that action shifts up the way that you're breathing. Notice if that action shifts up the way that your pelvis is, or the way your pelvic floor is functioning as you breathe. And it's not that I am leading you to try and make those things happen, it's more that I want to guide your attention to notice what exists there.

So not only just whatever you feel, maybe there's a tension pattern, or maybe there's some tenderness in that area, but what also occurs as a result of placing your fingers and gently pressing or gently poking in that area.

And now if you're sitting, sit up, or if you're standing just notice yourself staying on your feet. And we're going to move your hand position from being in the posterior part of your back by that lowest rib, and you're going to bring your hand forward and up by your collarbones.

So come up to your collarbones and then slide your fingers down to the space just below that between two of those ribs. So you're not right at the collarbone, slide down. And then gently press into and just kind of wiggle your finger and your thumb on either side of the manubrium or the sternum, depending on which ribs that you are playing between, and just gently press there. Just wiggle that around.

And then as you're wiggling that finger and the thumb around, now notice that lowest rib posteriorly. Notice your pelvic floor. Okay, and then let your hand go. Bring your hand back to the original position by the lowest rib and gently press in or gently poke. Try to do the exact same pressure if you can. And notice if there's any change of tissue.

So if there was a change of tissue, like it became softer or if it was less tender, it's this idea of the relationship of the QL or the thoracolumbar fascia in terms of postural control and playing around with the forces coming up from that upper part of your lower back, moving up towards the

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top of your breastbone, manubrium area. And the play of that force factor from the lowest rib posteriorly to close to the collarbone anteriorly.

And now notice your breathing. Notice the quality of your breath. And if anything has changed, and again, I'm not trying to seek out or lead you to breathing better. It's just notice and be curious about what is actually there. Notice if there's anything new or different in your jaw, or in your head, or into your feet or pelvic floor.

Okay, so now bring your hands, or hand depending on what's the most comfortable, and come close to your lower back spine. And then gently touch, poke, gently prod the area of your lower back from L1 down towards L4, so between the ribs and the pelvis.

There's more muscles than just the QL, right? But just kind of play in this area, getting to notice of what you feel. Or if you know your QL quite well, then take your fingers over two areas that might have trigger points or tender points or whatever you want to name them, and place your fingers in there and just kind of poke around really, really gently. Be easy with your breath. You can even breathe into those areas that you're feeling with your fingers or your thumb or your hands.

And then we're going to come up to the armpits and then gently place your thumbs into the armpit. So the right thumb comes into the right armpit, and the left thumb comes into the left armpit. It's as if you were, if you had suspenders on, you know how you could put your thumbs around the suspender, so you're just going to kind of place your thumbs and hook them into that armpit.

And then imagine you can breathe through your armpits right now. I know that's such a funny cue, but imagine that you can breathe through the armpit. So you got some nostrils in your armpit. I know, again, a very funny cue. But imagine you can breathe there through the armpits.

Okay, and now come back to that lower back area and just kind of poke around with your fingers, again, by the spine. Or maybe if you're in some

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tender points that you do know exist for your QL, come to those areas. And then tune into your breathing again, your inhale and your exhale. There you go.

And what do you notice that might be the same or different or new? Even the quality of your breath, is there anything different moving through the ribs, whether it's the lowest rib or the ribs higher up? Again, sometimes the change that is happening is not directly where we had our hands or where we were even placing our focus of attention.

Because again, of this relationship fascially elsewhere in our body, the way that change happens is not necessarily local to the area that we are working, which can be sometimes really frustrating. But also on another hand, super cool because it just has us recognize how broadly connected all of our tissue is.

Okay, now from here, placing your hands again on your lower back and then sliding one hand more to the center of that lower back and then the other hand on the navel. You might find that your hands are directly opposite each other or one might be higher than the other, just it's whatever is the most comfortable. So feeling the connection between your hands. And then bring both your hands to your ribs, just below your collarbones and be aware of your feet.

All right, and before you finish up with this episode, take about five or six breaths, and count those breaths on your exhalation. Because you might be feeling quite good here or you might be ready to move on, but take that time to transition between where you are now to what you're about to do next. And allow your awareness just to settle through your body and notice what your body is doing and saying.

The next episode is going to be on the psoas as it relates to breath, so do tune back for the next episode and have a great, great, great time exploring. If this has really interested you, check out the Mechanics of Breathing 3.0 course at learn.functionalsynergy.com/breathing. It would be

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an honor, a true honor to work with you. Take good care and happy exploring.

If this episode has resonated and you're looking to deepen this idea of getting your body back on board, of listening deeply to your symptoms, of listening to the whispers so you don't have to hear the screams and you're looking for one to one support or professional training, then reach out to us at health@functionalsynergy.com where we can customize your learning path. That's health@functionalsynergy.com. Looking forward to hearing from you.