Lymph

Transcript from Detox Reset Educational Webinar with Dr. Lauren Tessier

About Dr. Lauren Tessier ND

Dr. Lauren Tessier is a Naturopathic Physician licensed by the state of Vermont. Her practice serves clients suffering from mold-related illness complicated by conditions such as multiple chemical sensitivity (MCS), mast cell activation syndrome (MCAS), and chronic infections, including Lyme disease, Epstein-Barr virus (EBV), and cytomegalovirus (CMV). Dr. Tessier, CIRS certified in 2016, treats not only biotoxin illness, but also other overlooked forms of mold illness, including allergy, infection/colonization, and mycotoxicosis.

She serves medically established patients via her mold illness specialty practice, Tessier Medical LLC. Life After Mold, her consultation business, offers educational wellness consults for the consumer, and also for practitioners looking to improve upon their mold-literate clinical skills. Dr. Tessier's free e-book Mold Prevention: 101 is available on her website.

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Hi, everybody. And welcome back. I'm so happy to be here once again. And this time it's going to be for the fifth and final installment of our detox reset educational webinar series with Econugenics. And this time around, I'm going to be talking about one of my favorite subjects. And that is lymph and the lymphatic system.

It's a largely overlooked, unfortunately. However, And we will get into it. And I think by the end of this, you'll really work to appreciate, um, just how wonderful it is for us and just, um, yeah, how important it is to support it and what we can do to honor it and, uh, keep moving forward with our detox supports and cleaning up our, our bodies as we go.

So finally, one more time, a little bit about myself. Dr. Lauren Tess here. I'm a naturopathic physician. I'm licensed by the state of Vermont and by California. And my practice, Life After Mold, really works to help people who are sick after being mold exposed. However, um, within that group of folks, I'm also doing a lot of work with environmental medicine.

And of course that is everything in the environment that makes you sick. So in the work that I do with folks, I am doing a lot of work around, um, detoxification and supporting proper metabolic health. And then of course, um, all the other stuff that comes with this, which is like mass cell activation syndrome and multiple chemical sensitivity and all the Lyme infections and co infections and Epstein Barr virus, all that stuff kind of just runs together as complex chronic illness.

And so that is what I do day in, day out. Um, and I am so. So I'm so thankful to be here with ecoNugenics and getting to talk about some of my favorite subjects. So I'm so thankful to be here and I'm so excited to move forward and talk a bit about the lymphatic system, its parts, its function, and then what we can do to support it, of course.

And. I, you know, would be doing our due diligence here, um, we want to make sure that we are reminding you that none of this information is for medical

guidance, medical advice. It's non endorsements, non referrals, anything along those lines. This is strictly for educational purposes only for the consumer.

And that just goes for myself, ecoNugenics, and anyone else affiliated. with these processes. And of course, when you're speaking with your physician about anything that you've learned here, you want to make sure that they are privy to every aspect of your health, including any preexisting conditions, um, which also includes pregnancy, breastfeeding, but no matter what.

Again, educational purposes only, and this is not any type of medical guidance or advice, and watching this does not create any type of doctor patient relationship. Okay, so let's get into the fun stuff. Let's get into LIMP. So, when we think about the human body, you know, they say that we're 70 percent water.

I'm sure you're a lovely person, but you're a big bag of water. As am I. I'm a big bag of water. And so, the, the different parts of our fluid in our system can be broken into, you know, our, our, our blood, and then our, our lymph, and then our serum, um, and so different parts of those fractions are going to have different stuff in them.

Um, so, for instance, um, our, Our, our blood has all of it, our lymph plus our red blood cells. Our lymph though is essentially everything minus the red blood cells. And the reason why we see that is because our capillaries, which are the tiny, tiny little vessels that bring, uh, red blood cells through so they can drop off their oxygen.

And they can pick up their CO2 and head on to the vein side and head back to the heart. They never actually leave the capillary. They get squished through and get really tight, but they never actually leave. Instead, what leaves the capillary and starts to bathe the tissues outside of the capillary is the lymph.

And so it is a clear fluid. That has water, carbohydrates, fats, electrolytes, enzymes, um, antibodies, cells, um, lots of different things, um, and the whole

purpose of them, um, actually it's a multifaceted purpose because again, remember the body. Does not waste and the body is really good at just kind of recycling and repurposing things.

So many things in the body have multiple uses and when it comes to live, we know of course that it. Aids in the immune system functioning, right? That should go without saying, like, we know that we are all my lymph, my lymph nodes are like inflamed, you know, I have a sore throat. Like we know that there is a interaction, um, between lymph and our immune system.

But what we also know about lymph is that it helps to transport any type of metabolic waste products, right? We're talking about detox, any metabolic waste products from the capillary beds. In and around that space where red blood cells couldn't leave, but everything else could. So that metabolic waste from that tissue space gets processed into the lymph.

And then the final one, which I think a lot of people forget about, is lymphs roll in the gut. There are these tiny little finger like projections in our gut called villi. And within the villi are tiny, tiny little blind ends of lymphatic vessels called lacteals. And lacteals take fat from the gut, from the diet, and they absorb it, and then they bring it back into circulation.

And so what we're saying here is that your lymph is integral to your immune system functioning. It's integral to your Digestion and your fat balance and fat is in every cell in the body. So, I mean that I will, I won't get on my soapbox about that just yet. So the other thing that it also does, of course, is helps to move and, um, eliminate toxins, uh, from where they're being dumped out of cells locally.

So this photo here, um, although now looking a little closer at it, um, the man does look like he's crying, um, lymphatic vessels and I apologize for that. I didn't want him to look so sad, but this is our essentially our lymphatic system and so we have different parts, our lymphatic vessels that are responsible for clearing Different parts of our bodies.

And so our vessels are, um, you know, they go from large to small, very similar to our, um, blood vessels. We have capillaries like, uh, lymphatic capillaries. We have ducts, trunks, which are a little bit bigger. And then those trunks kind of coalesce and dump back into circulation. Specifically, one of the big ones is at the subclavian vein, like right under, right out of our heart, we have our subclavian vein.

And one of our biggest, um, thoracic ducts for a lymph kind of just pours right in there. It's like a little, little vessel spout that just dumps it right back into circulation. And so all those green lines, there are vessels. If you look a little closer there, though, you will see. kind of little nodular green bumpy lumpies.

And those nodular green lumpy bumpies are our, um, our, uh, lymph nodes and our, um, lymph system. And so we do call those lymph lymphoid organs. And technically those are our secondary ones. We have primary lymph organs. Um, and I want people to think about the lymphatic organs as, uh, places that your immune system goes to be schooled.

So you have your initial schooling of your lymphatic organs, and that's going to happen in the thymus, that little gland right here in that picture, um, and also in your bone marrow. This is where your white blood cells are going to learn initially, kind of. What is self, what, what is safe for me to protect versus what is the outside world and what do I need to go after?

And then after these white blood cells and your lymphatics are produced in the bone marrow and educated in the marrow and the thymus, then they go into lymphatic circulation. And then they eventually make it to, um, your lymph nodes and your spleen and your tonsils. And there, that's where your lymphatic cells hang out and kind of peruse everything that's going by.

It's like, you know, the, um, the, the, the staties, that's what we used to call the staties that would sit at the, the park and ride. Or even at the turnabout on, on the long highway stretch and kind of watch and survey and watch everyone kind of

going by your lymphatic cells, your lymph cells, your lymphocytes do that they hang out in lymph nodes and they hang out in other lymphoid organs and void tissues so that they can do.

That surveillance and make sure that there's not some foreign invader or something happens that the immune system needs to alert and orient itself to. And then of course, with our cells of our lymphatic system, we're thinking of our lymphocytes. So our lymphocytes are going to be, um, our, our, um, our B lymphocytes, our T lymphocytes, our macrophages, our monocytes, our dendritic cells, even epithelial cells that we have lining.

These vessels, so long story short, we got organs where the cells of the lymphatic system learn, we have vessels that help move the lymph around, and then we have the cells that help carry out that immune system functioning.

So traveling, travel of lymph. We'll talk about the lacteals first.

So, traveling of lymph through lacteals, as I mentioned, lacteals are these tiny little blind ends that are hanging on the finger projection of the hollow tube of the intestine. And remember, the intestine is technically the outside world still. Even though it's inside our body, it's coming in contact with the outside world.

It's not actually inside the way our blood vessels are inside. It's a hollow tube from opening to opening all the way through. So what you see here in this little picture, this little blip, and this is one of those finger projections called villi on the inside of that hollow tube, that is our, our gut and that little kind of, um, almost looks like a piece of rolled up silly putty, right?

Uh, that is supposed to be a lacteal, uh, usually they would color that green. So, you know, we wouldn't get too confused. It's kind of universal to consider lymph green. Um, but here in this picture, that is a lacteal and it's a blind end. And what it does is it absorbs fatty acids and glycerol from, um, the lumen of the gut.

And sometimes that can happen, um, passively. It can happen actively. Um, and so we tend to forget about the lacteals in the gut. And when we have an upset gut, we really have to remember that, um, you know, our, our lymph in our gut is likely being impacted too. So the other way that our body. Moves lymph or the travel of lymph doesn't just happen in the gut, but it's our systemic circulation.

I'm going to have some pictures on the next slide to explain this a little bit. Um, but it can happen passively. And so, um, if you guys remember to back to basic chemistry, maybe where they would put like, um, a semi permeable Um, Semi permeable membrane. I'm sure I'm just losing everyone here with these horrible flashbacks and on one side they put salt water and on other side they put pure water and after some time there was a movement back and forth of either.

Depending on what was happening there, either the water or the salt in the two compartments would come to a closer equilibrium, um, working to really reduce the overall salt content in one or increase the water content and the other vice versa. Anyway, so that whole process, if you recall, is called a, a concentration gradient, it's the same way that if you had lots of people jammed into one room.

And then you open the door at some point, people would probably start to trickle out and more people would spread out. And so we consider that really like a concentration gradient that's resulting in passive motion. And so, um, the other way, not just through that concentration shift and change, the same reason why we brine turkeys and things for, for, for meals.

Um, We're not just relying on that concentration shift. The other thing that can happen is the body has systemic parts to it that operate as a pump. It's really the best way to put it. And so, um, kind of the, the overarching flow here is that, um, If you remember, I mentioned the subclavian vein. We have that big lymphatic duct that comes back in, dumps into here.

It mixes back with the blood. Then the blood gets pumped by the heart and goes all throughout my body, all mixed in with the lymph. And then we get down to the

small capillaries, the tiny, tiny bits. And that's when our red blood cells stay there, but our lymph ekes out of the capillaries and moves into that tissue space around the capillary bed.

And then eventually that lymph is pulled back in to a lymphatic vessel and then that lymphatic vessel is pumped or manipulated or something to get that lymph fighting gravity and get back up to the heart where everything gets pumped all over again. So this travel happens by Three, three different major, major, uh, means, I would say three different pumping actions.

And the first one here that you'll see furthest on, um, this slide to the left that shows the heart and then the capillary bed at the bottom is that, um, the, the capillaries of the lymphatics, the green lines. We'll suck up all the lymph that's in and around that capillary bed where the red is transforming to the blue and it will pull that all the way back up and into the subclavian vein near the heart and the heart is doing the pumping to move the lymphatics through that system.

Our other system that we have for this is our muscle pumping effect. So. The lymphatic system does have some small, um, some small valves and the valves are there to prevent backflow. So if there is going to be a little bit of backflow, it's going to, some of it's going to get caught up against the edge of the valves and only a little is going to kind of like trickle in between.

So if you look at this. Middle picture where you see muscle pump effect and you picture the blue as the lymphatics and the, the red pink stripes as your muscle bellies, when you're walking, when you're moving and you're contracting that muscle, that muscle is going to push on that lymphatic and kind of like.

Push it up to the next valve and then that lymph will travel up and then maybe with another muscle contraction, it will incidentally compress that lymphatic vessel and do a little bit more upward forcing. So we have that. That's why it's really important for when people have lymphatic issues. We say gentle movement, just like move the big muscles of the body.

It gets it pumping and helps return it back to circulation. Now, the third picture that you'll see here, this has to do with breathwork, and breathwork is really, I mean, it can go on and on. I'm sure all of you know how important breathwork is, and of course posture tails into this, but we have a very large thoracic duct.

That comes up through that back, uh, that posterior, that backside of that rib cage behind the lungs. And so when people breathe appropriately diaphragmatic breath, where they're taking an inhale, their diaphragm is dropping, and then they exhale and the diaphragm is pushing up. That is also causing that upwards push of.

The big lymphatic channel that's lying inside, um, your, your, um, thoracics just behind your lungs. So the main ways that we pump lymphatics because they can't really pump on their own is through our heart pumping, our musculoskeletal pumping and through our breath. And with all of that being said, there is some research.

Of course, that shows that while they do have valves, some of them do have some small, small traces of smooth muscle cells, which allow them to contract ever so slightly, ever so slightly. When I was in school, there was no smooth muscles. Uh, smooth muscle cells in lymphatics. Um, it was only in our elastic, elastic E, um, um, blood vessels, which were our veins and our arteries.

And so, um, seeing that there is a little bit of a smooth muscle component, um, in our lymphatics is, um, an interesting thing if you're a little bit of a nerd like myself, but. Anyway, speaking of nerds and new discoveries and new information, um, I wanted to call attention to this because a lot of folks, um, when it comes to detoxification, they have a lot, or at least in my clientele, there's a lot of brain fog, forgetfulness, headaches, fatigue.

Um, I mean, the, the list goes on and on, but I always say that it's your, your central processing unit. You know, it's your CPU. It's up here. Your brain has a lot of information to process. And also, just like any other part of the body has a lot of

like chemicals and toxins to process. So what we see or what we found in the early 2010s is that there is a new discovery that there was Something called the glymphatic system in the brain.

Now, um, back before then, it was the blood and the brain is completely separate and none or neither the two shall ever meet. The brain is aseptic. It cannot have any type of bacteria. It cannot have anything crossing into that brain space. Um, and then. Over time, we realized that that's just not the case.

And then additionally, we found out that, well, the brain has a lymphatic system too. It looks a little bit different from the rest of the body. So on the right down there, excuse me, on the left, you'll see the lymphatic system where kind of the blind ends of the, the lymphatic hoses are wrapped in and around the capillaries.

Whereas. The glymphatic, um, system in the brain, those blind ends are kind of in sheathed around the, um, the protective barrier inside of the brain. So the brain does have some lymphatics and that is realistically, um, You know, kind of wrapped up in a protective sheath that also kind of encompasses the capillary beds there, too.

Now, the interesting part, of course, just like any other lymphatic system is these, it removes waste products, and we do have plenty of waste products that form in the brain. Of course, um, and that just doesn't come from metabolism, but we know that you can inhale something from the environment and if it's fat soluble, it can dissolve into the lipid membrane of the olfactory nerve.

The nerve that runs from the nose to the brain and find its way up into the brain. There's plenty of studies on air pollution in Mexico where they found the similar air pollution in the air, and they also found it on tissue nerve biopsy of the nose and the brain. And so, um, we do have that, you know, information there that toxins.

Toxins get into the brain and they need to be cleared out. And thankfully the glymphatic system is there to help us do it. The only kicker is it turns off during the

day, which means that you need to make sure that you are getting a good night's rest in proper alignment. Um, and so sometimes for folks, when you're working on supporting neurocognition in your detoxification process, you're pushing on sleep more than I think people would realize.

And even in instances where people say, I don't have a sleep problem, I'm fine. We still support sleep because we want to make sure that we are getting the system moving and flowing, um, out of the brain. And so there's always something being discovered. Um, and it's always interesting that as much time as physicians spend with the body and spend imaging the body and spend in, um, you know, medical schools doing dissections that we still find new stuff.

So you never know how things shift and change and it's always a humbling experience to incorporate new knowledge into these processes. So the glymphatic system, super cool. By now it's 15 years old, but the way medicine moves is that still relatively new information, which is so fascia and lymph. Fascia and lymph are like the The, the, the twins, the under under acknowledged twins of the body, um, fascia is your connective tissue.

It makes up all the tissue scaffolding throughout the body. Um, if you've ever cooked meat before, um, and you've removed. I don't know, like a layer of, um, chicken skin. I apologize to, to vegans out there. Um, or, you know, you're, you're breaking up a pot roast and there's some of that silvery connective tissue that is called fascia, but that connective tissue is everywhere.

It is like the scaffolding that everything grows on. And so, um, you know. If you were to, um, somehow like dissolve away the cells on a liver, you would still have the connective tissue framework in there, almost like a soft skeleton holding the shape of the liver, but without the cells on it. And so fascia not only exists in these organs, in our, you know, the, the, the ba our bones, our.

Organs also exist in those spaces in between the organs, like what I mentioned that that's, um, you know, the, the stretchy, shiny skin in between, you know,

chicken skin. And so fascia is everywhere. Now, fascia gets bathed by the lymphatics. Because the fascias are it's outside of the capillary system and when things are outside of the capillary system here, you have your lympho all in and around it.

And so you have your capillaries and you have your fascia on the outside and then you have your lymph kind of filling in the empty space in there. Um, and so fascia is. So interesting, and I really encourage people to just read as much as you can about FASCHA, about, um, ground regulation matrix, all that kind of good stuff.

There's a huge rabbit hole there, um, but what I want to get at here. It's because lymph and fascia have such a deep profound connection. When you damage fascia and it kind of gets tightened up and into a knot a little bit or, you know, scarred up or maybe calcified a little, you're not going to have lymphatics that are going to be able to flow around that easily.

And so when we have blockages in fascia, what you're going to see is swelling. You're gonna see skin dimpling, you're gonna see fibromyalgia like pain, you know, um, a lot of the, the deep concerns that people have about cellulite, all things to worry about, my goodness. It's usually that there are fascia occlusions in that tissue.

That's stopping the fluid from holding, from moving really smoothly. And so when you break up those fascial adhesions, um, and it doesn't have to be as aggressive as it sounds, then you get smoothing of that space. You get really, really laminar smooth movement where the fascia can slide and glide over each other.

And with that comes the free movement of That also exists in that, in that compartment. So, um, fascia and lymph go hand in hand and people, I just want people to know like more about it and think about it, like, this is the reason why after you get a massage, they say, please make sure you drink tons of water, you know, so the, the, the list goes on and on and, um, there's so much information to.

To be learned about, um, connective tissue and lymphatics, and I encourage you to kind of go forth with your curiosity and have fun because it's, the body's amazing. So, we talked about the fascia, now we're talking about lymph and the gut. I already mentioned lacteals. Right through the little finger projections in the hollow tube, and they're going to absorb fats and fat soluble nutrients and, um, and a lot of the interstitial fluid from the gut, aka the lymph in the gut, or kind of the lymph surrounding the tissues in the gut and.

It acts as a secondary line of defense against gut pathogens. So not only is it going in and sucking up all the fats and all the good, good stuff from the gut, it's also surveying as it goes too. So this is another reason why we want those lacteals to be well taken care of, because we want to make sure That it can help to activate the immune system when something goes already in the gut.

So, um, you know, we also see studies with like babies where if they are given, um, appropriate probiotics and gut development, um, Um, we see that they develop really healthy lacteals and a really healthy lymphatic system because those lacteals and their health are really dependent on having a really well balanced microbiome.

Um, so it's. Another kind of just, it's amazing how deep the rabbit hole goes with lymph. So again, and that kind of ties back into that whole phase four detox and the gut ecology stuff that we've been talking about, you know, we really want to make sure that that gut is balanced because that's one of our first line of defense against our immune system.

And that's another first line of like, um, First line of defense against. Um, bringing in proper nutrients into the body. So the lacteals are a big deal. They absolutely are. So then a lot of folks know that there are issues around lymphedema and swelling and, you know, like stasis ulcers and all of these things.

So the question really here is when does lymph become problematic? The way I see it is that it becomes problematic when there's pooling because it's supposed

to, it's in constant motion, it's supposed to be bathing the tissue, it's not just supposed to be stuck there and being stagnant. Stagnant, stagnant is not good for anything, you know, stagnant water, mosquitoes, we don't want that also within our body.

We don't want stagnant water just holding onto toxins, not returning them to the kidneys and the circulation. And so, um, when we do have that pooling, um. It can be the result of two major things. Remember that whole concentration gradient semi permeable membrane. I jammed tons of people in this room here with me and it's tight and it's uncomfortable.

Yet soon as I open that door, we get this kind of equilibrium where some people leave, some people stay, um, That, again, is that concentration gradient. So when our lymphatic system and our concentration gradient of our lymph that's kicking around in our tissue, if that's out of whack, then we're going to have trouble driving that fluid.

back into the, the lymphatics. So, like, another great example would be me having, like, 50 people in this room. We open the door, a few people leave, we get more room. I try to put five elephants in this room, and they're just too big to even fit through that open door. We're never going to be able to Return them back to circulation.

I hope that makes sense. So when we have kind of to too much of something, either it's like too big to fit into the lymphatic vessel, it's like a big, chunky protein. Um, or, um, it's just that there's, there's not enough fluid to carry. the toxins along with it, we start to see pooling. Now, getting stuck is a lot like pooling, but when I think stuck, I think like physical entrapment, and that's where that fascia comes in.

Now, I'm going to go a little bit further here, um, and say that hypermobility For all our bendy friends out there, myself included, ligament laxity and hypermobility, that's also going to cause getting stuck. People think, well, you're bendy, so you can move really easily. Well, a lot of people, when they become hypermobile, or

their, their tissue integrity starts to suck, just to put it really blankly, what ends up happening is they sit back into their joints.

And when you sit back into your joints, You don't engage your muscles, your muscles turn off. And if you remember back to that slide, what are your muscles doing? Your muscles are pushing your lymphatics. So if you're sitting back into your joints, cause you're hypermobile, you're not activating all your different postural muscles.

You're going to get, you're going to get. stuck fluid. The fluid's going to get stuck. And so while it's one good thing to make sure that you got like good moving fascia and all this kind of stuff, there's the flip side of that coin where if you're just too stretchy and too hypermobile, well then Your fluid can get stuck that way, too.

And so what I really want to, like, drive back to people here, um, is that, you know, you can have, um, pulling that also happens with posture again. Like, I was just talking about hypermobility. Um. That fascia tightness can get it stuck muscle tightness. Um, you know, we have, um, a thoracic duct that actually starts low in our lower back at like, I think lumbar one.

Um, so right at the transition between your thoracics and your lumbar vertebra. And, you know, if you, uh, have poor posture. Or you're knock kneed, or again, you've been Ehlers Danlos patient, or you're just super hypermobile bendy, and you have trouble maintaining a posture that keeps that in alignment. If you're hunching and standing forward, like, you're potentially occluding.

The lymphatic vessels that are deep in your rib cage. So while it might sound really like simple, it's, we really want people to focus on good posture. It doesn't have to be aggressive movement, gentle movement, gentle stretching, but not too much stretching like that. You know, it's, it's, um, it's a little bit of a, uh, a minefield for folks sometimes.

So lymph stagnation is really what I'm getting. It's getting at here. It's either Duck

or it's pooling and the symptoms that show up for folks here are going to be like fatigue and itching and GI complaints, right? We talked about that skin complaints, sinus conjection, uh, congestion, brain fog, headache, fluid imbalance.

You stand up too quick. You get lightheaded, you get dizzy. I'm sure that sounds familiar to a lot of you. Um, and then of course. Enlarged lymph nodes, but, but, but, but, but, but I don't usually use emojis in my presentations, but the three red flags here, enlarged lymph nodes are never anything to just mess around with and assume that it's lymph stagnation.

That could be infection. That could be a cancerous concern. Again, none of this is medical advice, but please don't, I mean, don't ignore any symptoms, but do not. Ignore large lymph nodes and just assume that it's a lymph stagnation there. So what do you do? How can I help my lymph? What can I do with my lymph?

How can, what's, it's the cherry on top of all of this detoxification, right? Because we've gone in with the autophagy, if you guys remember, and we've packed manned and cleaned everything up. And now all of that metabolic waste is. kicking around in that, that, that lymphatic fluid. And we somehow got to get that to the liver to start the detoxification process.

You have to move, you have to move. And that can be gentle exercise for folks that can be walking, uh, rebounding like the mini trampolines. That's something, uh, uh, uh, uh, water aerobics, aquatic aerobics, because the kind of buoyancy actually acts as a fluid pump to, um, skin brushing is another one that's cheap and easy lymphatic and trigger point massage.

That would be something that, you know, wouldn't be free to you. You'd go and pay someone to do that for you, but someone who really knows their way around the body and specializes in that can do some amazing work, um, deep breathing. Deep breathing is another one. Remember, we have that thoracic pump, PT for posture, physical therapy for posture, because you want to make sure that you're not hunched and, you know, crunching down and sitting into your joints and not using your muscles that are acting as pumps and even sweating.

You know, if there's, if you can't exercise and you're feeling really crummy and you're tired and you know, like, I don't expect people to, to be going to PT for their posture day in and day out, you know, sweating is another nice way around it. However. If you're someone who has trouble exercising because you feel weak and you feel tired, sweating can take it out of you too.

And so I don't have people, I don't mince words with this. If you decide to sweat, I want you to lie down to sweat. Don't stand up to sweat. Like if you have trouble exercising because of feeling lightheaded and dizzy, I'd rather you take a shower, bundle up the way we've talked, spoken about previously to get a gentle sweat on.

Put a heating pad on, crawl into bed, and sweat that way. I'd rather have you sweat safe and horizontal than upright and risk you getting lightheaded and dizzy. So there are a lot of simple things that you can do to help move the lymphatics. So then the question also might be, well, what can I take? You know, um, we live in a world where, um, even for all of us that are health conscious, we do still want some support.

We do want the supplements that can help us, um, be on the behavioral interventions. And so here, um, you know, I think it's important to think about what goes into the body. Electrolytes, proteins, fats in the diet. How are those concentrating in the lymphatics? Um, is that, is that causing too much stagnation locally in the lymphatics?

Or is that going to be at a really nice balance where that osmotic gradient just Pulls it right back into the lymphatic system and you're good to go. Another thing that I would want you to think about is reducing histamine in the gut or in the diet. Either way, um, histamine is released by mast cells.

Um, it has the ability to drive a lot of fluid. Locally to wherever the histamine is released. So it's going to be a lot of swelling and edema and lymph. However, one of the other things I want to call out here is, um, when we reduce histamine in the

diet or histamine triggers in the diet, we reduce mass cell activation in the diet.

I'm sure some of you are familiar with this, but there's a school of thought that suggests that some mass cells. secrete something called elastase 2. And that elastase 2 can make your fascia and your connective tissue. Weaker, so when we're triggering mass cells, we might be feeding forward into having weekend looser connective tissue that means that we might have insufficient valves in our lymphatic system.

It might mean that, you know, we're, we're not, um. We're sitting back into our joints even more because our joints are weak and we're not getting that muscular pumping from posture. So as, as, uh, kind of, uh, six degrees of separation, as it may sound that histamine in the diet can, can lead to, you know, um, can lead to worse connective tissue.

There is a school of thought there. Um, and I encourage people to fall down that rabbit hole and take a peek at that too. Now, of course, supporting the microbiome. The lacteal health. This is what we're getting into. It's transporting fats and proteins and it's the, the first surveyor of, you know, the, the antigens and any of the problems that are coming into the gut, any of the bugs.

So we want to make sure that we're supporting the GI microbiome. And the reason why this is highlighted here is again, because of the eco probiotic liquid support. That we're doing in that like phase four type of detox and in that detox ecology. So if we're supporting the gut well enough, then I mean, that's halfway to a well supported lymphatic system.

And then of course, hydration, but hydration, you need to make sure that there are electrolytes. And that's going to vary for everyone. You need to speak to your doctor, especially if you have, um, blood pressure issues, um, heart issues, kidney issues, liver issues, you need to be mindful of The personal balance of your own electrolytes that you'll need.

So unfortunately I can't specifically say there what specific things to take for electrolytes, but just know that you can work on it and make it your own and really optimize that now to further continue the discussion of what can I take to help my lymphatic system? There are some very, very safe stimulating lymphatic herbs.

Of course, all herbs you want to. Be cautious of in all situations. Again, not medical advice. You want to make sure that you're working with, um, a licensed physician who is very familiar with these before working with them, um, yourself, but in general, chickweed, red clover cleavers. These are all. Relatively gentle and also some of them are highly nutritive, um, herbs that can also go a long way in supporting your connective tissue too.

So not only are they stimulating to the lymphatics, they're also supporting that connective tissue that helps the lymphatics keep doing their job. So finally here, um, the last part of, you know, what can I take for connective tissue support? For hypermobility, because I truly believe that hypermobility has a big part in all of this and how often people have to detox and and how cautious they have to be about their body and how reactive they might be to different interventions.

And so there are tons of nutrients here that people can take for, um, their hypermobility and a lot of them are going to be, um, things that are required for good connective tissue, your lysine, your vitamin C, K, um, various minerals. Um, you can also use herbs that are also really profoundly high in, um.

Beneficial nutrients for connective tissue, highlighting a couple of those. There are horsetail straw, um, and then highlighted also on this side under nutrients, you'll see that I underscored minerals. I underscored magnesium. And that's because. Those are actually all in, um, the products that we are working with right now.

Um, the minerals, um, are really present in the GlyphoDetox product, and that's because of the kelp and the folic acid that it contains. Now, MSM is also included in the eco detox product as is the magnesium. And those two things are phenomenal for connective tissue. And I do have to have my call out here.

As I've mentioned before, if you want to support your connective tissue and your hypermobility issues or the possibility therein, you need to avoid glyphosate. And the reason why, if you guys remember is glyphosate replaces. Glycine in all of our tissue proteins, um, and anything that we're stringing amino acids together that contain glycine, glyphosate comes in, inserts itself where the glycine should be, and then causes issues with protein folding and as So, Causes a lot of downstream stuff.

And so of course I would go to say, well, if you have a hypermobility issue, you want to make sure that you are, you know, eating organically you're, you're doing non GMO AK avoiding glyphosate. And of course, in this entire process of this, um, detox reset, we've been working with a wonderful product called the GlyphoDetox that.

does provide, um, all of the, um, cofactors required and the binders that are in support of removing glyphosate from the body. So I know it's a little bit of a twisting, winding path that I've taken you on today, but I Do really hope that you enjoyed it. And I hope that there's a little bit of surprise there when it comes to the lymph system and just how integral it is to the structure and function of everything in our body, and just unfortunately how, um, overlooked it is.

So with all of that being said. I'm so thankful to have spent so much time with you all. Um, this does conclude the webinar series. And if you would like to stay connected with me, please do so. You can find me across most social media channels with the handle life after mold. And then of course, if you head to my website.

You can sign up for my newsletter and in exchange for that newsletter, you can get ahold of my free ebook mold prevention one on one, which walks you through your home, your work, kind of all the hot, hot spots, hot places to keep an eye out for how water intrusion might kind of, um, manifest or give clues to itself, um, for, for being there.

So definitely, uh, check that out. And again, thank you so much for joining me and it's been an absolute pleasure. And I wish you all well and keep in touch.