



Episode 481: Joshua Levitt on Real Solutions
for Musculoskeletal Pain

Child: Welcome to my Mommy's podcast.

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Katie: Hello, and welcome to the "Wellness Mama Podcast." I'm Katie from wellnessmama.com and wellnesse.com. That's wellness with an E on the end. And this podcast is all about real solutions for orthopedic and musculoskeletal pain. And I'm here with Dr. Josh Levitt, who draws on the science of both conventional and natural medicine, he's a naturopathic doctor that has a really complex, unique approach to dealing with musculoskeletal pain and orthopedic pain. And he talks today about his wide-ranging approach to this and why it's much more than just addressing the acute pain. And he talks about how he got started as a naturopathic doctor, the patients he works with and his approach to care, the root causes of pain, the mind-body connection that we can understand through understanding things like phantom limb pain, understanding inflammation and how it relates to pain, and so much more. He's also the founder of upwellness.com, which is a new company. I've been using some of their products and really enjoying them. And we touch a lot on pain in this one, but he has expertise in a lot of different areas. I think you will learn a lot. So, let's join Dr. Josh. Dr. Josh, welcome. Thanks for being here.

Josh: It is a real treat to be here. Thank you for having me.

Katie: Well, I am super excited to delve into your area of expertise, but before we get there, I have a note in my show notes that you are a surfer. And I'm currently in the middle of a tropical storm, which is the only time we have good waves in our area. So after this podcast, I will be taking some of my kids to go surfing in a hurricane. But I have a note that if you were gonna give a TED talk, you would talk about how surfing imitates life. So, I know this could be a topic of its own, but can you just give us a couple high points there, to start off?

Josh: Yeah, absolutely. Well, stay safe out there, and, yes, hurricane waves are the best waves. I know it sounds crazy to people, when everyone else is wanting to hunker down, surfers grab their boards and head outside. I can totally relate to that. So have fun and stay safe out there. Yeah, absolutely. I mean, one day, I'll probably kind of develop a whole talk around this subject, surfing imitating life. Oh, my gosh, there's so much to say, right? Probably one of the most common things that comes up in my clinical practice is about balance, and surfing and surfers, I think, are kind of like the people who would be accused of having really good balance, right? It's a balance-intensive exercise, and so, you know, we talk a lot about balance. And I'm sure, you know, it's a subject that comes up, work-life balance, marital balance, you know, all these sorts of things in balance and health and wellness and keeping yourself together.

And so, you know, a surfer seems like a good person to talk to about that, right? Well, it turns out that in surfing, and I suppose it's also true in life, there's not really anything...there's no static fixed point of balance, right? Surfing is this, like, ever movement, ever-fluid activity that requires constant sort of assessment of what's happening with the wave, with your board, with your body, with the currents, and whatnot, and then readjusting. And so, the idea that a surfer is at any point balanced is really not true. Instead of being good at balancing, what surfers are good at is the effective management of imbalance, and I think that those are two really different things, right?

So, when a person's surfing on a wave, the wave pitches, and you move, and then it pitches the other way, and you move the other way. And I would argue that in life, this idea, there's a pursuit that a lot of people are looking for, "I wanna find balance in my marriage, balance in my parenting, balance in my work, balance in my life." And I kind of wanna tell people that, like, take it from a surfer. There's no such thing. There's no fixed point. It's not like something balancing on something. It's not static. We're talking about a fluid thing here that is life and work and relationships. And so, take it from a surfer, just learn how to effectively manage the imbalance, and you'll be much better off, so that's kind of like just one of the bullet points of my surfing imitates life talk. And, yes, we could go on and on.

Katie: I love that. I hope you actually do that as a talk one day. And I agree with you. I've written about that too, that, like, balance is a moving target, and adaptability is much more important than finding that fixed point often.

Josh: Totally.

Katie: And also I wanna make sure we have a lot of time to delve into your area of expertise, because I think this is something that affects a lot of people listening to some degree, and from what I'm seeing, it's something that's on the rise as well. But, to start broad and kind of understand how you got here, I have a note that you went to UCLA on a pre-med track, and then you pivoted. So, can you walk us through what caused that change for you?

Josh: Yeah, absolutely. And, yes, we'll spend the majority of our time on our content, because pain, I think there's very few people who don't know about that, and who have an experience in some form or another. Yeah. I was one of those kids who just always wanted to be a doctor. So, it just made sense. I studied neurophysiology at UCLA, and I had the good fortune to sort of, like, become friendly with, because of parental relationships, with a lot of doctors at UCLA at the time, many of whom, now, we're talking 25-plus years ago, many of whom discouraged me from medicine, career in medicine that is. They were seeing the changes afoot. Many of them have actually come to pass now, relating to insurance companies and big pharma and all that sort of stuff. Life as a doctor, as they used to know it, wasn't as good, and so they were saying, you know, "I don't know if you wanna do this. You know, it's gonna just get worse."

So I took that advice and took off, for a year. This is kind of what a lot of people call a gap year. After I finished UCLA, instead of going on to a graduate medical education, I just took off for a year, and this was me hair growing, you know, hitchhiking and traveling around the world with a backpack, sleeping in youth hostels, sleeping on beaches, all that sort of stuff. Anyway, the origin story, if you will, was, on this fateful flight, I was leaving from Israel, actually, where I had been, and hiking around, and heading to Europe, Switzerland, in fact, and I had a blister on the back of my foot just from, you know, a lot of walking in sandals and not great hygiene, I have to admit, at the time. Anyway, that blister got infected, and I knew enough to know that this was something serious. As I'm flying on this airplane, my leg is red. I'm getting a fever. It's creeping up my leg. I had cellulitis, which is a very serious medical problem. And so, I had the good fortune to be able to call in my people back home. I got a prescription for antibiotics, called into a pharmacy in Zurich, Switzerland, and I hobbled my way in there in a feverish state, and took antibiotics, which saved my life, or at very least, saved my leg.

And in that pharmacy, I saw, like you will still see today in many European pharmacies and places around the world, all these other medicines, right? In addition to the antibiotics that I so desperately needed at the time, I also saw homeopathic medicines. I saw herbal teas, all this nutritional stuff, vitamins, minerals, herbal extracts and things. And this was just...maybe it's because I was kind of, like, you know, in a febrile, hallucinating state or something, but this was really, really eye-opening to me. It's like, wow, there's this whole medicine that's not antibiotics and surgery and all the stuff that I knew of, and that was the beginning. Like, here I am now. It's kind of funny to think about it this way. I'm, like, the naturopathic doctor who got his start in a pharmacy where I was picking up a prescription for antibiotics, you know, which I'm very grateful for, but it opened my eyes to a whole world of medicine that I did not know existed, and has since become my passion, my career, my life.

Katie: What a cool story. And I have a similar thing, like, I definitely tend toward the natural side of things most often, but I also very firmly believe there's a time and a place for Western medicine. And I've been very grateful for the few times that it's saved my life as well. I think that's an important caveat to remember in this conversation. So, what kind of patients are you seeing now in your office when you're working with people?

Josh: I'm glad that you phrased it that way, what kind of patients, because I always like to think about this. Even in contrast to the mainstream or conventional medicine that we're talking about, yes, we can be grateful for things that have saved our lives, saved our limbs, but there's also a lot to be learned from the pitfalls in Western medicine. And so, I think the type of patient that I see, that's kind of like a fundamental question here. So, for me, first of all, and most importantly, my patients are people first, right? I've never seen arthritis come walking in my office, although I've seen a lot of cases of it. I've never seen cancer or thyroid disease. It's always been, so far today, 20-plus years and counting, a person with arthritis, a person with heart disease, a person with cancer, which I think is a really important distinction, and unfortunately often gets lost in Western medicine.

We're gonna talk about orthopedics and musculoskeletal pain, and it's so common. I mean, anybody who's been in a big factory-like orthopedic office can know the feeling of, like, you're "the knee in room six," or you're the "hip in room seven." And that's really frustrating to people because they feel like they are just their body part, just their disease, just their gland, just their illness. And so, yeah, the first part of that answer is they're humans. They're patients. They're people who have problems, in many cases, in my world, people who have pain. So, a lot of my practice was devoted to the care of people with musculoskeletal pain, but certainly not exclusively. And then another sort of philosophical point there is that if a doctor like myself treats people, then I treat the problems that those people have, which is, again, very different than Western medical specialties. I live in Connecticut, right down the road from Yale. And at Yale, there's hyper, hyper-focus on specialization, right?

So, I've had, and I kid you not, a patient who had a very serious thumb problem who went to see, not just a hand doctor, but someone who specializes in thumbs, which is kind of amazing if you have a thumb problem, but it's pretty easy to feel like that's, the blinders are on, and all you're being treated for is that problem. So, my practice, even though I had a fairly significant focus on orthopedics and musculoskeletal pain, was a practice that was like the anti-specialty, or is a practice, it's like the anti-specialty. Whatever you got, you're a human. I know how to treat humans, let's go. And if we need to kind of move on down the line to greater specialization, then that's fine. But mostly people with musculoskeletal pain, and everything else, too, is my answer to that one.

Katie: I love that answer because, having been a patient that I felt like was just a diagnosis when it came to thyroid disease for a long time, it's really awesome to hear a practitioner explain it from that perspective. And it's interesting when it comes to pain as well, because I feel like as functional and naturopathic medicine have gotten more well-known, people are looking into more root cause approaches now. So, for instance, by the

end of my journey, I wasn't just a thyroid patient anymore. Most of the people I was working with understood the gut connection, understood how the body works as a whole. But it seems like with pain, especially with joints, there's still maybe, like you said, some blinders there, that while we can look at the whole-body approach in other areas, it's often a temptation to go, "Oh, you have a knee problem," and not look at the whole rest of the body, or not look at pain as being the whole rest of the body. And I would guess that there's still, of course, going to be whole-body connections there. So, how do you approach someone who comes in with a complex case that maybe also has this musculoskeletal pain, or some kind of orthopedic issue?

Josh: Yeah. And that's a great question. I mean, you can totally relate. Patients with thyroid disorders are sort of commonly sort of just siloed into endocrinology. And, yeah, pain is a really tricky one, a lot to say here. I mean, certainly, if someone twists their knee and tears their ACL skiing, they do, they have a knee problem, right? That's pretty clear. But they also have pain, this mysterious sensation that we have. I'd like to sort of share something that everybody can relate to, and I can relate to this, not personally, but professionally, having had patients who've suffered with this. There's this problem that we've all heard of probably before, it's intriguing, called phantom limb pain. This is in a person who's an amputee, who doesn't have a limb. Maybe they lost it in an accident or injury or whatever the case may be, and they still have pain in that limb, or itching or other types of sensations. Really difficult to manage.

But it gives you this very interesting perspective when you just think about it, right? If a person doesn't have a foot, and their foot that they don't have hurts, it's pretty clear that the pain is not in the foot, right? It can't be, because there is no foot, right? So, here we have our skier that we just talked about, who tore their ACL. Well, they have a knee. It's just kind of damaged right now, and they have this pain, not unlike the pain that the phantom limb patient has. Is the pain in the knee? Well, it certainly was generated by structures in the knee, but the pain is perceived in the brain, right? It's really a brain problem, and, yeah, it has its origins in a trauma in the knee. And then the brain grabs a hold of these signals that are coming from a traumatized area, and then tells the person a story about it, and then there's all these biochemical things that happen, like inflammation and muscle tension and fibrosis, and we can talk all about that, in and around an area infiltrated with blood and cells to help heal. And there's this whole story, an emotional part.

So, pain, gosh, it's really something. And so, your question was how do I approach a complex patient with a pain disorder? Again, it goes back to that fundamental philosophical standpoint. It's a person, right? We have to understand what stories they have around that pain, what it means to them, what they're afraid of. A lot of times, there's fear wrapped up in there. And then we have to understand nutrition, biomechanics, biochemistry, environmental medicine, including toxicity and all the sorts of things that functional and naturopathic doctors talk about, occult infections, and all the other things that could make something that is traumatized or injured and otherwise painful even more painful. And I think that's actually the key to discuss here is there's so many people who have exaggerated reactions, be it inflammation, or pain itself, beyond what their injury or trauma deserves, right? And I think there's so much room for helping and healing people in that space, in that delta.

Katie: Yeah. So, let's go deeper on that, because having had a few joint injuries throughout my life, it seems like the mainstream model of care is just pain relief and let it get better, unless a patient needs surgery. But it sounds like from what you're saying, there's a lot of things that could be done differently and on different levels that would really change outcomes. So, let's go deeper on that, and how that could be done differently.

Josh: Yeah, absolutely. And you're right. I mean, pain is considered now a vital sign, and, you know, that was kind of an idea that wound up kind of being a big problem, because it initiated or was part of the initiation of the opioid crisis that we have now, treating pain, managing pain, staying ahead of pain, all that sort of stuff. When the reality is the pain is a signal, right? Pain is a sensation that we experience, that our body is telling us to change our behavior. The most kind of primitive example I can think of of that is, like, if your hand starts feeling really, really hot because it's close to a fire, the pain tells you that there's something that needs to change, and that something is that you need to move your hand away from the fire, right? That's great. And that works really well. If you have a thorn in your foot, you'll limp to not press more on that thorn, these sorts of things. It's a very primitive kind of reaction. And yet, like, there's all these stories that get wrapped up in it, and also, it gets enhanced or increased by all of these underlying baseline factors like nutrition and whatnot.

So, the short story of how...the genesis of any kind of pain syndrome, I like to think of, like, you wake up in the middle of the night to go use the bathroom or something and smash your toe against the side of the end table there, toe gets crushed, right? Some tissue gets damaged in the area. Hopefully, you didn't break a bone, but, you know, there's damage to the area. And it hurts. And then a whole bunch of things starts to happen. Blood vessels opened up. Some tissue was damaged. That tissue that was damaged released some chemical mediators from inside the cells into the local bloodstream, and then the local bloodstream kind of got sense...has sensors for these kind of chemicals that are telling you that you've been traumatized in some way. And that kicks off this advanced, extremely complex cascade of interactions involving cytokines and leukotrienes, prostaglandins, and things that are all these chemical signals that tell your immune system, essentially, your white blood cells and all these cleanup cells, to say, "Hey, there's something going on in that toe. Get on down there and start to clean up the mess."

So, that's what happens. The white blood cells infiltrate the area, and the cleanup crew begins. The point here is that this inflammatory reaction, and we'll get into inflammation maybe even in more detail as we go along, is a necessary part of a healing reaction. You have a, I think of a matrix of events that happens, tissue injury, and then some pain, and then inflammation, and then muscular tension around the area, some amount of guarding, and then the healing response. And inflammation, which is a major, major part of the pain generator kind of cascade, is a major target, where we see excessive response based on the level of the injury, right? So, many people who don't eat well, who are exposed to environmental toxins, etc., will smash that same toe against the end table and see a greater inflammatory response. And so, the level of pain, the level of inflammation in response to an injury is directly correlated with the underlying biochemical health of the individual. So, that's how I think about these musculoskeletal pains, whether they come from trauma, acute injury like a ski accident, or from an autoimmune disease or a degenerative process like arthritis, it's all the same.

Katie: That makes sense. So, someone with already a higher degree of inflammation in the body would have a heightened response to that acute inflammation.

Josh: Absolutely. It doesn't matter if it's a mosquito bite or if it's an ACL tear in a skiing injury. A person who's healthier will respond in a healthier way, with reduced levels of inflammation, a speedier healing time, etc. And that applies no matter the trauma, whether it's a degenerative arthropathy, whether it is an autoimmune disease, or whether it's an acute injury like a trauma.

Katie: And you also said, like, that inflammatory response I would guess actually serves a very important purpose in the body, in an acute sense, because it's releasing all of those signaling mechanisms, just like there's an inflammatory response post-exercise, that leads to muscle growth. So this is...in general, inflammation isn't categorically a bad thing, but you're talking about when we have this systemically chronic inflammation that then makes all of these responses worse?

Josh: Absolutely. It's either systemically chronic or excessive in response to trauma or infection or injury. And the way I like to think about it...and, yes, you're right. The inflammatory response is a fundamental part of sort of human immunological reactions. If we didn't have it, it would be lights out. It's absolutely necessary. And I think, you know, this is really interesting. Perhaps you know this, or maybe not, that inflammation, it has a Latin root word, like so many medical words. Inflammo means to set ablaze. It means fire. Inflammation is named after fire. And very much like fire, I mean, it's a very aptly named process. Fire is... Well, here we are, you know, at a time when the world is burning up, especially in California, you know, these wildfires are so destructive. Fire is a massive human advancement and fundamental to our survival, right? We use it to cook. We use it to stay warm. Harnessing fire was one of the greatest achievements of humankind.

But fire is also extremely destructive, perhaps one of the most destructive forces on the planet, and so inflammation is very much the same. Like, we love a candlelit dinner, but if the candle catches the curtains on fire, we have a big problem, right? So, inflammation is named after fire, and properly so. It's necessary. It's fundamental. It's actually critical to our survival, but too much is a bad deal. And too much can be, like, a low-lying chronic burn happening all the time, like you mentioned, a chronic inflammatory state, or it can be that the brush is so dry, there's just so much tinder out there, that when something happens, a trauma, an injury, a mosquito bite, it flames up like that. And so, yeah, inflammation is good, but too much is not good.

Katie: And then it seems like a lot of the first line of approach to, like an injury especially, or to pain, is some type of anti-inflammatory pain medication. But I would guess since this isn't addressing the root cause of the other inflammation, and there are side effects to a lot of these drugs, that can, in the long term, have a negative effect, I would guess?

Josh: Absolutely. I mean, yeah, the idea of suppressing inflammation, you know, kind of a brilliant achievement in terms of medicine, but also not without risk, right? This is a fundamental biological process. I mean, you and I can both relate to this. If you have any biological process that's sort of been...that's part of kind of our system and who we are, and you just willy-nilly suppress that system, there's gonna be consequences to that, right? You can't just get away with that forever. And, yes, of course, no matter which way you decide to suppress inflammation, whether it be from prednisone or steroids like that, or from the more common classes of over-the-counter medications, non-steroidal anti-inflammatory drugs, NSAIDs we call them, yeah, there's gonna be a price to pay for that. So NSAIDs are, you know, loaded with a whole host of side effects, and steroids are even more powerful anti-inflammatories that have even more powerful side effects.

So, the way that naturopathic doctors like to think about this is to support the inflammatory process, right, rather than suppress it. And, I think, that's a really huge distinction between the way I practice medicine and kind of functional integrative doctors' practices, support versus suppress. Of course, there is a time for suppression. When a person's life is at risk or limbs are at risk, you know, suppression can be necessary. But if we think about this as a hierarchical kind of approach, if there are ways to support a degenerative kind of joint pain type of syndrome, rather than just suppress, suppress, suppress inflammation, the patients will almost always be better off in the long run.

Katie: That makes sense. And if pain is a messenger that's telling us something in our brain, versus just an acute response in a place in the body, it makes sense that just suppressing that without figuring out the root of it could be very counterproductive in the long term. And in my notes, you talk about a pain matrix, and kind of an alternative approach to handling this, which I'm starting to kind of be able to pull some pieces based on what you've said, but can we go into detail on this, especially for anyone who has, like, a chronic pain like this that they're trying to work through?

Josh: Yeah, absolutely. And I think this is sort of fundamental to the approach. It's something that evolved for me over time, kind of like a flow chart or a process, or even a pattern recognition, for me, in the office watching people who suffer, many of them...and just as a broad category, we'll call it arthritis, right? They have joints that hurt. It might be their neck or their shoulders or their back or their elbows, wrists, you know, hips, knees, wherever the case may be. They get lumped into this category called arthritis, and when we look carefully at these people, there's a sort of a pattern that emerges over years of caring for them in this sort of naturopathic kind of way. First is, there's something wrong, right? There's something wrong with the joint. It might be that the cartilage is thinned out. It might be that there's bone spurring in the area. It might be that a disc in the cervical or lumbar spine is thinner than it's supposed to be or is bulging out in one place or another.

So there's some structural integrity. In most cases of people who have these kinds of things, there's something that is structurally compromised. Very often, and I'd love to get into this more later, that structural compromise is visible on X-ray or on MRI, and is very often the only thing that the doctors will tell the patient is wrong, right? "Oh, we see this structural compromise. We see this bone spur. We see this disc thing. We see this joint space narrowing. There's your problem," right? So, I'm here to tell you that that is not always true. In

fact, very often, it is not true. Structural problem is just a part of the story, because, from that structural problem is this whole matrix, this cascade of events that occurs. The first, and one we started to just scratch the surface on a little bit, is when there is structural problems, what does the body do? Inflammatory response. Just like we described before, this influx of white blood cells, and there's an inflammatory response. A healthy inflammatory response, it'll be graded according to the level of structural trauma or structural integrity problems. But if a person has those underlying factors, the inflammatory response might be excessive. So that's the first part of the pain matrix after the structural problem.

Structural problem leads to an inflammatory response, which could be healthy and well-controlled, or it could be out of control like a wildfire. And then from there, that inflammation is a trigger for pain. It's, you know, kind of a very good system. You have a traumatized or structurally compromised area, you have some inflammation, you get a signal that it hurts. So you start limping, or you start doing other kind of behavior change...postural changes, very often involving muscle tension. So, in the muscles adjacent to the disc, or in the muscles adjacent to the shoulder where the rotator cuff is torn, or the knee or the hip or wherever the case may be, it's extremely common for people to have excessive amounts of muscular tension in the area where there is a structural problem and some inflammation. We call this splinting or guarding. We've all experienced it before. When something hurts, you kind of hold on to it. Like, you don't wanna move it more, and it's a very wise body response, right? And when something's torn or damaged, you hold on to it tighter.

Well, just like inflammation, there are conditions that will lead people to hold tighter and hold longer than they should with that muscular tension, and if that muscular tension persists, you wind up having muscular tension as a new pain generator, right? So, here we have a structurally compromised disc, some inflammation in the area of the disc, now muscle tension in the muscles all around that disc, and now things are really starting to hurt, right? And then, this persists, and here we go, the last phase of the matrix, is when this persists long enough, the muscle tension cuts off blood supply, and as that blood supply is cut off, the tissue becomes, oh, gosh, more gristly, like, less tender. You know, if you think of a piece of meat, if you eat meat, you know, there's tender, and we kind of usually like that. And then there's, like, tough, and we don't like that too much, at least most people don't.

And if your muscles are contracted and under tension, because you're guarding them and holding for such a long time, they can become tough, and that toughness is the result of the accumulation of fibrin, like a scar tissue in the area, that makes the musculature less tender, less juicy, if you will. And so, that, that I just described, from structural compromise to inflammation to muscle tension to fibrosis, that package is what hurts. And very often, when you treat all of those other accessory things, especially the inflammation, muscle tension, and fibrosis, the structural problem, it doesn't matter so much anymore. It's not as big of a deal.

Katie: That makes sense. And you can correct me if I'm wrong on this, but I've heard that the structural thing doesn't always necessarily line up with the pain response in someone who's otherwise healthy as well. Like, for instance, I've heard of cases, people having a bulging disc or ruptured disc and not experiencing any pain. Whereas conversely, they have a minor issue and be experiencing a tremendous amount of pain.

Josh: You're 100% right. It's just amazing to me, Katie, that more doctors don't understand this, or don't even ask themselves that very simple question that you just raised. Take a case in point. Here's a person. I just had a case like this last week. He has back pain. You know, it didn't go away. He went to a doctor. He got an MRI. And the MRI showed that he had a bulging disc, disc herniation in between L5 and S1 in his case. And then, he did some stuff. He did some PT. You know, maybe he took some medication, whatever it was. It's irrelevant. He did some stuff for a few weeks, and he got better. So now his back doesn't hurt anymore. So, if...we'll do a theoretical here...we were to shoot the MRI again, he still has a disc herniation. So, you know, he just doesn't have the pain anymore. And this is extremely common. So, this has been well studied. Your point is well-taken, and you're absolutely spot-on on this one.

The presence of imaging abnormalities, like arthritic changes, joint space narrowing, disc bulges, degenerative changes of any sort, do not correlate with a level of pain. There's lots of people out there who have all kinds of badness and yucky-looking stuff on MRIs, and they feel fine. And there's all kinds of people who have terrible pain whose MRIs and X-rays look normal. So we cannot correlate imaging findings, X-ray, MRI, CT scan, to a clinical syndrome. It just doesn't work, and the reason why is the pain matrix that I just described. It's not always...I don't wanna say that the structural thing is irrelevant, because it's there. It's a real thing. There's not supposed to be a disc herniation. But, if there's excessive inflammation, muscle tension, fibrosis in and around that area, that's the difference between that disc herniation hurting and not hurting. And that's the most progressive pain control kind of protocol out there right now, is to ignore the imaging findings. They don't matter as much as most people think they do.

Katie: So, with that more comprehensive understanding of pain, what is your approach to treating that in a kind of a whole-person approach, versus just that acute trauma of the pain?

Josh: Yeah. So, and I think talking about the chronic stuff is more relevant. And I'll start actually by going back to something that we said before, which was about the experience of the pain itself and the stories that we tell ourselves. You know, we were just talking about how poorly imaging findings, X-rays and MRIs, correlate with pain, right? But there are lots and lots of people who get told by their radiologist or their orthopedist, and even shown these images, right? They say, "Hey, look here. You can see. See how it's bulging out right there. That's a problem. See how this is asymmetrical, and there's a narrowing over here." And patients very often have this image. They're not radiologists, they don't know what they're looking at, but they have an image seared into their brain by a doctor, you know, an authority figure, telling them that they are broken. That's what that story really is telling them.

In fact, the patient I just told you about was shown a picture of an MRI with a bulging disc, and in his mind, he's hearing this story from a radiologist, "Oh, your disc is bulging." What he's hearing and internalizing is that, "I'm broken, that my back is degenerated, that I'm a mess," right? "I'm falling apart." And that is a very unfortunate casualty of that conversation. So, one of the first things that I start with is by telling people, "Look, you're not broken. There's lots of people who have disc herniations like that, and they feel perfectly fine. In

fact, you're gonna feel perfectly fine in just a couple weeks, and you're still gonna have that disc herniation. So, you're not broken. You're just hurting. So let's start there," right? And that comes, you know, as a great relief to a lot of people who really feel now that they're broken, so they have to be cautious, they can't run anymore, they can't bike anymore, they can't lift up their kids or something like that, for fear that their broken back is gonna really become, you know, a bigger problem. I think Western medicine, mainstream medicine does a huge disservice to patients kind of accidentally, by telling them or implying that they are damaged, and it's unfortunate that that happens. So, we start there, try to, you know, reverse that story, to change the channel, so to speak.

And then, there's this whole world of options that become available to people, depending on the uniquenesses and the specifics of their own case, that can, one, support the health of the damaged connective tissues. So, these are things that you know about, Katie. These are things that, like, are collagen, you know, a lot of these connective tissues like cartilage have collagen at their base, and are formed of compounds that you've heard of before, like glucosamine sulfate and chondroitin sulfate and methylsulfonylmethane, all these sulfur-containing amino acids that are part of the matrix, the quite literal matrix of what we're built out of. So, we use things in the natural medicine world or in the dietary world to help improve the integrity of connective tissue, because almost always, whether it's a disc or a bone or a muscle or a ligament or a tendon with connective tissue integrity problems, we try to support that integrity. So that's number one.

Number two is we try to support that inflammatory process, decrease the amount of excessive inflammation, without suppressing inflammation, but just supporting it. So that means dietary changes. We can get deeper on that if we...you know, there's so much. It's basically everything, really, nutrition and lifestyle, that is the difference between a healthy inflammatory response and an excessive one. So we go down that road with nutrition and dietary changes, and herbal medicines as appropriate. And then if there is muscle tension involved, I like to work on that as well. And that can be worked on also nutritionally and biomechanically, postural re-education, physical therapy, strength, stretching, strengthening, trigger point release work, all these manual things that can be done, many of them with my own hands. And then depending on the chronicity, like how long the problem has been going on, and whether or not there's evidence of this scarification, you know, especially in old injuries, we try to do what we can to break up that fibrosis that's kind of the scar tissue, that toughness in a muscle or soft tissues around an affected joint. And that is the package.

Katie: And, yeah, it seems like a much more comprehensive approach that would have positive ripples. I mean, the idea of inflammation and out-of-control inflammation being a root of many problems has come up on this podcast quite a bit. It makes complete sense that it would have a tie-over into pain, and the plus side here being addressing all of those factors, even if you're just motivated initially by this acute pain, is gonna have such positive spillover into so many other areas of life. Like, I feel like changing that inflammatory response and getting it in a healthy range is gonna help sleep, it's gonna help stress, it's gonna help digestion. Like, of course, we know the whole body is connected.

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the Lion's mane coffee packets for the morning, and their reishi elixir packets before bed to help with sleep. I'm also really enjoying their protein powder right now. They have a peanut butter flavor that's delicious on its own blended with water and is packed with beneficial mushrooms. I often make a protein shake on busy mornings or after a workout and love the convenience and brain/energy boost. Check out my favorite products and all of their products by going to foursigmatic.com/wellnessmama and use code `wellnessmama` to save 10%.

This episode is sponsored by Beekeeper's Naturals, amazing products powered by and from bees. I've said before in a world where we are navigating more negative inputs to our body than previous generations have faced, we have to take a proactive approach in a bigger way than previous generations have. And when it comes to feeling 100% or as close as possible to that, we have to take that proactive and not reactive mindset around our health and wellbeing and Beekeeper's Naturals is a big part of this for me. They're disrupting the traditional medicine cabinet by creating nature-powered formulas that work to support your immune system with your immune system. And they, through doing, this support, like I said, immunity, brain health, and energy levels every single day. Their products don't include any additives or unnecessary chemicals, just nature-sourced ingredients like bee propolis, elderberry, chaga mushrooms, and royal jelly. My go-to's are for sure their propolis spray first thing in the morning and a shot of their B-LXR anytime I just want to bring boost. Today, Beekeeper's Naturals is offering an exclusive offer just for you. Go to beekeepersnaturals.com/wellnessmama, or enter the code `wellnessmama`, all one word, to get 20% off your first order. You can also find them at over 2,000 stores nationwide including Target, Whole Foods, and Sprouts.

There's a lot of people out there, especially when it comes to pain, I'm seeing a lot of people using different types of biohacking and getting into some of these, like, more obscure, or just kind of fringe ideas that I think... My take is always there's a time and a place for a lot of those things, but I always like to tell people, too, I think 80% of it is the things you're doing daily, small habits, things that are free, your sleep, your stress, your food, your movement. But I do also think there can be a time and a place for those. But I'm curious your take on that, because a lot of these do seem to line up with musculoskeletal or physical performance. So, do you use any of those therapies, and if so, how?

Josh: Yeah. I appreciate this question, and it's a great one. And it's almost controversial a little bit. I know that world very well, like, the health and wellness world, you know, and the attraction to the new...you use the word fringe. You know, the "progressive" might be...you know, we love shiny new objects in this country, and that is certainly no different in the world of orthopedics and musculoskeletal pain. We also have to remember that pain is a huge motivator. Like, people hate pain. They don't wanna be in pain, and they'll do anything. They'll spend a lot of money, they'll do all kinds of crazy stuff to try to get out of pain. I think it's true that...you use the word "biohacker," which is kind of a whole community, a whole universe, really, progressive medical stuff, is very seductive, because it makes these wild promises about this new science of injecting this or that.

And I completely agree with you. I mean, I think of...and I'm gonna use a little allegory here for a minute. If there's a fly buzzing around in our kitchen, there's a lot of different options that we have for that. And me, and

I suspect you might be similar, I like to try to, like, open up the window and see if I can get him out. You know, I don't like the fly being in there. It's a problem that I have, but I'm gonna try to use, like, a peaceful solution. And it sometimes works. There's some risks to it. It might be a little harder. And then, I might step it up to, like, the rolled-up newspaper or the fly swatter, and then I might step it up, although I probably wouldn't, just for the sake of my metaphor here, to, like, a chemical spray, like Raid or something. You could spray that around the kitchen and kill it. And then, if it's still not going away, we could pull out, like, a flamethrower, right?

And the idea here is that, like, there's increasing levels of force that could be used to treat a problem, in this case, the fly problem. I like the least force. That's the way I like to do it. And if that doesn't work, we step it up. And with each increasing level of force, there is increasing levels of toxicity or trauma to the kitchen, right? Like, you pull out the flamethrower, there's gonna be a big mess. You'll kill the fly really effectively. And in orthopedics, we have this all the time, right? We love surgery. We love injections. We love prolotherapy, PRP, Lipogems, all of new fancy stuff. And those can be great, but they are kind of up in that higher category, closer to a flamethrower. So, if the case allows for it, there's time, it's not that severe, then we start with the gentle stuff, the dietary changes, the lifestyle changes, posture, biomechanics, massage, nutritional therapy, herbal therapy. That's the opening the door or the window. And then we go up from there. And, yeah, there might be a time where we need medication or an injection of some sort, and this is where that biohacking universe starts up.

We had prolotherapy was one of the early introductions, which was the injection of sugar molecules to help spur or enhance the growth of cartilage cells. And then that evolved, and a lot of people now are doing PRP, platelet-rich plasma injections, where we extract the platelets, which have growth factors in there, kind of a one-up to the old prolotherapy. And then up from there, we have a bunch of fancy new peptides that are available, or the extraction of fat, and injecting that into joints.

And you asked am I into that. Yeah. I'm into all of that. I think that stuff is amazing, and it's awesome, especially if it comes before the next big-ticket intervention, like, for example, a joint replacement. But if you're asking am I into that, like, right out the gates? Absolutely not. I share your thoughts. I wanna work with the open the door for the fly approach first, dietary, herbal, nutritional, and kind of work my way up that ladder, up that hierarchy. And as long as treatments are safe, and safe is both safe to the patient, of course, and also safe to their pocketbook... I think there's a lot of money to be made in a lot of these fancy interventions, too. So, "safe," I'd use the term very broadly. But if it's reasonable intervention, and it's safe for the person, and might be effective before pulling out the flamethrower, then yeah, let's go, you know. So that's where I'm at with biohacking and novel progressive therapies.

Katie: Yeah. It seems like an important kind of progression of the intensity of therapies there. That was a great analogy. And I've always heard it said that people only change when the pain of staying the same becomes greater than the pain of changing, and in this case, talking about actual pain, it's a wonderful teacher, to your point. And so, I would guess for a lot of people, you get to see them in an interesting point where they're hitting that threshold of it's now more painful to stay the same, they're willing to change, and you're able to

then educate about all of the ways in which they can do that, that even if they end up needing one day one of those more advanced things like surgery, hopefully not, but their body is gonna probably be in a much better state to handle surgery, or handle whatever they need one day, than if they had not addressed those things. Because as you were talking about this, I'm imagining, you know, if someone's having...we've talked about the inflammatory connection here and all the layers of this. If someone is in that state, going through surgery is another stress on the body, is creating more inflammation and tissue damage in the body, so their recovery from that could also be pretty difficult if they haven't addressed these other factors.

Josh: Yeah, absolutely. It was so eloquent the way you just described that, Katie. It's so true. That's where people are, right? That's the precipice that they're on, "This problem that I have is no longer acceptable to me." And they're willing to do something about it, right? And I think the goal of the physician, I mean, certainly, it's not a way I've ever really thought about my job, but it is, to sort of assess, like, "All right. Like, how problematic is this? What are you willing to do? What changes are you willing to make?" It's certainly a discussion that we always have, like, how much do you like your current diet? How much do you like your current inactive lifestyle? Or, in some cases, how much do you like that running that you do, that's just messing up your knee? And I've had countless people that I've had to say, you know, "I think it might be time to switch to a bicycle." And it's brutal. It's a brutal reality check for them to have to assess, like, "Yeah. I'm on a precipice right here. I cannot deal with this hip situation anymore. I have to make a change."

And, yeah, for some people, that means I'm ready to have a surgeon cut me open and take my old hip out and put a new one in. But there's many...I would say not...I don't know if I wanna say most. In my practice, I'd say, you know, a significant majority of people can improve their pain state, musculoskeletal pain, quite dramatically without resorting to the flamethrowers of the world. And that's been...gosh, I mean, how much more gratifying could a career be, to be able to help people avoid those kind of expensive, scary interventions, and instead use natural therapies? And, yeah, it's unfortunate that we have to... It is. It's very hard to get people to change until there's some reason that almost forces them. And, yeah, actually, in a lot of ways, makes my job easier, right? Here they are. They're ready to go, you know. So I just help usher them along that path.

Katie: And I'm sure it's refreshing for them to work with someone who is not trying to push them into the high-ticket, expensive, and somewhat drastic options, but also address these root causes first. And I also think, if we can shift...because you mentioned the mindset a couple of times. I think if we shift our mindset, we can have extreme gratitude when there's pain, because it's an incredible teacher, and it gets our attention, and we can learn a lesson, and hopefully, we do, in a way that has positive effects. Going forward, I know for me, I'll, like, get vulnerable for a second. A few months ago, I ended up, through a combination of strange and unusual factors, getting rhabdo. Which is not a thing that would normally have happened to me, but I had had blood loss and then a series of things that kind of compounded, and I got rhabdo. And the pain of that was enough to get my attention. And definitely, I was able to address some things through that experience and learn lessons about not pushing myself too hard in certain areas, which were important to learn.

But I think if we reframe it, like, any kind of pain, even emotional pain, there's a lot of metaphors there, becomes a great teacher if we let it. And if we don't resist it, if we let it teach us, and then integrate those habits and move forward, and even for someone who maybe doesn't have a bulging disc or an ACL tear, and is not in acute pain, all of these things you've talked about, I would guess, also increase our resilience if we are injured or if we encounter pain, because if we address all these things beforehand, it would seem like we can handle those things better if they occur. Is that your experience as well?

Josh: Yeah, absolutely. I mean, first, to your thing, and we won't spend any more time on it other than me to say I hope it was a speedy and complete recovery for you. It seems like you're doing just fine. So I hope that's true. Yeah. The experience of pain is a great teacher indeed, and I think that we live in a world, society, certainly in the healthcare universe, where we wanna just suppress it. We want nothing to do with it, right? We wanna stay ahead of it so to speak, medicate it away, and we're losing a lot when we do that. Now, of course, the pain is uncomfortable, right? It's uncomfortable for a reason, and when a person is able to sort of take a couple deep breaths and kind of go lean into that pain, this is what a lot of the mindfulness work spearheaded by Jon Kabat-Zinn and so many others, you know, about using cognitive behavior therapy and mindfulness as relates to pain, can be amazing, powerful tools that don't involve any change, you know, in nutrition, but have radical impact on the biochemistry and the whole sort of neurochemistry of pain.

And absolutely, I think, we need to take it for what it's worth. You know, absolutely, if it's disabling or incapacitating, there's tools that we have and we should be grateful for to help manage that. But, yes, it is indeed a lesson, a teacher, and there's always, and I would say always, I mean, we don't get to say that too often in medicine, stories that we have that are borne of our own experiences, that inform what our experience is of that pain. And so, if, you know, your life history tells a certain story, and then you come up against some kind of pain, you will take that pain experience, and it'll become part of your story. And that might make it hurt more or less, depending on what your background is and what stories you're telling yourself about it. And so, I think that as part of a comprehensive sort of naturopathic management to a pain syndrome, whether it's a chronic problem or an acute problem, is that the assessment of that story, and trying to help people find ways to reframe it in a way that makes it a positive experience for them ultimately.

Katie: I love that. And as we get close to the end of our time, a few questions I love to ask, the first being if there is a book or a number of books that have had a profound impact on your life, and if so, what they are and why?

Josh: Yeah. I know your style with this question, and I love this question. And my answer is a book called "Ferdinand the Bull." And that is a kid's book that I have a few copies of. It was my favorite book as a child, and it remains my favorite book as an adult. It's the story of Ferdinand the bull, who got stung by a bee. Talk about pain. And it was right at a time when all the bullfight crew was coming in from Madrid to assess the bulls in the pasture, who was the biggest, fiercest bull. He gets stung by a bee. He jumps up, he runs around crazy, and they say, "Oh, we found our bull." And they bring Ferdinand the bull to go fight in the bullfights in Madrid, and all he ever wants to do is just sit down in the middle of the ring like he always did out in the pasture, and smell the flowers. He's a peaceful, kind bull. He doesn't wanna fight. And that's always been my favorite book, and it

remains my favorite book to this day. It's just about, I don't know, peace, smelling flowers, and non-violence. I just love "Ferdinand the Bull." So I appreciate the question and the memories it evokes.

Katie: I love that. That's a new recommendation. I'll put a link in the show notes for anyone who isn't familiar. And where can people find you to keep learning about your approach and/or work with you if you are taking new patients?

Josh: Thank you. Yeah. So, my practice, and right now my practice is...I'm a busy person, so my practice is full to new patients at the moment. That can always change, depending on all sorts of different professional and personal life things. My practice is here in Hamden, Connecticut, and we have five other doctors there as well. That's a practice called Whole Health in Hamden, Connecticut. And the website for our practice is wholehealthct.com. You'll see me there. I am still there. I just am at this exact moment not accepting new patients right now. I also am the medical director of a company called UpWellness, which is found at upwellness.com, U-P-W-E-L-L-N-E-S-S.com, UpWellness. And the logo of UpWellness is a wave. I told you at the beginning I'm a surfer, and upwelling... This is an interesting little side note for you. UpWellness is the name of our company, and our tagline is called "Nutrient-Rich Living."

So, any surfer can relate to this, or anyone who's swum in the ocean or a large body of water. There's this phenomena where you hit a cold patch, and a cold patch is an upwelling, where there's this upwelling of cold, nutrient-dense water from below, that replaces the nutrient-depleted water above, where all the biological activity is, from the sun and the fish and whatnot. And so, that upper layer of water gets depleted, and then currents and whatnot will cause this infusion from below of cold water, and we experience that as a cold patch. But it's also a nutrient-rich infusion, so hence the name of our company, UpWellness, "Nutrient-Rich Living," and upwellness.com is where people will find all the products that we create that help people with musculoskeletal pain and all manner of other different problems, herbal, nutritional products that me and my wife Amanda Levitt, who's also a naturopathic doctor, formulated ourselves. So, that's at upwellness.com.

Katie: I love that. I'll put that link as well. I had some of your products in my coffee this morning. It was delicious.

Josh: Great.

Katie: I'll make sure people can find those. And any parting advice to leave with the audience today?

Josh: Oh, gosh, you know, we're...I think, kind of my tagline that I teach to my kids that I try to, you know, probably teach to myself as much as anybody, is just to be kind to each other. We are in a really challenging time, you know, and I don't wanna get into it, all the division that's out there. But I think that there is just

some fundamental rules, and kindness is probably at the top of that list that could help a lot of us, you know, get along better and solve some of the great world problems if we just kept kindness at the front of our minds. And beyond that, there's one other thing, and I'll share this with you, too, is that I would encourage people to look for ways to find awe, A-W-E, you know, again, a surfer word. We use the word awesome, right, and then surfers maybe co-opted that word to describe waves, or maneuvers on waves.

But awesome is something that, you know, makes us feel small, makes us feel humble, makes us realize that the world is this bigger place that we are a part of. It's the oneness. And it turns out, closing notes here, that scientists have studied all these different positive emotions, and it turns out that awe is an anti-inflammatory. If you experience awe, it reduces levels of IL-6 in the bloodstream more than other positive emotions, including things like joy and contentment and other positive emotions. Awe is the most powerful positive emotion in terms of anti-inflammatory effects. So, be kind, and be awesome.

Katie: I love that tidbit. That's really great to know about awe, and I would guess others like gratitude and joy are still beneficial. But that's really cool that they've actually studied that.

Josh: Yeah. They have. They studied that at Berkeley. Yeah. And they're all beneficial, for sure, like gratitude, love, joy, all clearly beneficial, but when you look at IL-6 levels, this is what they decided to assess, awe works the best. So go find something awesome.

Katie: And that brings us full circle to our starting point with surfing, and I definitely learned a lot today. I'm grateful for the work that you do. I know we didn't even get to really delve into your products that much, but I'll put a link in the show notes. I'm a big fan, so I'll put a link, people can find those. Everything we talked about will be at wellnessmama.fm. And Dr. Josh, thank you so much for your time today.

Josh: It was a real pleasure, Katie. Thank you.

Katie: And thanks as always to you guys for listening and sharing your most valuable resources, your time, energy, and attention with us today. We're both so grateful that you did, and I hope that you will join me again on the next episode of the "Wellness Mama Podcast."

If you're enjoying these interviews, would you please take two minutes to leave a rating or review on iTunes for me? Doing this helps more people to find the podcast, which means even more moms and families could benefit from the information. I really appreciate your time, and thanks as always for listening.