Episode 674: Peptides, Longevity, Aging Backward, and Defeating Joint Pain With Dr. Elizabeth Yurth
This podcast is brought to you by LMNT, which is a company that I have had the chance to invest in and have loved since day one. They just released brand new grapefruit flavor on top of all of their other flavors that I absolutely love, including watermelon which is a kid's favorite in my house, as well as citrus, raspberry, orange, and a couple of ones that I really like, like mango and lemon habanero as well. As you know, summer brings warmth and sunshine, and with it, energizing opportunities to all of us to move and play and be outside. But it also brings a fair amount of sweat. And if you are a regular sauna user like me, you know that sweat is part of it, as well as if you exercise regularly. And this is why optimal hydration is the key with the right fluid to electrolyte balance, because it isn't just about getting enough water and fluid, but also making sure our electrolytes are dialed in and you feel the difference when you get it right. So when summer brings the heat, LMNT brings the grapefruit salt flavor to help you enjoy that balance all summer long. You can consider grapefruit or any of their flavors, your ultimate summer salt companion. And I love that they combine sodium, magnesium, and potassium in the clinically studied ratios to make sure that you can stay optimally hydrated even if you are saunaing or exercising or just spending time outside in the summer. Find out more about LMNT by going to drinklmnt.com/wellnessmama. And this is a one time flavor so when it's gone, it's gone for good. I highly recommend that you try it. I also would suggest trying watermelon and mango chili if you like a little bit of a spicy kick. But watermelon, like I said, is the kid favorite at my house and you can find those and all of their flavors at drinklmnt.com/wellnessmama.

This episode is sponsored by one of my favorite companies - Just Thrive Health. They have several products that are a part of my regular rotation and absolute staples in my house. I know I've talked about it before, but I'm a huge fan of their probiotic, which has patented strains of spore-based probiotics that survive longer in your gut. So you actually get the benefit of them. It's a good rule of thumb that if a probiotic can't handle room temperature and needs to be refrigerated, it's probably not going to handle the temperature of your body very well. And many probiotics, while they might have a lot of concentration in the capsule form, aren't surviving well in the gut. And this is what makes spore-based probiotics different and why I use them regularly. These are great to get all the way into your gut and provide the benefits. And it's the first probiotic I've really actually felt a difference from.

They also have a new strain with a patented formula called Just Calm that is a gut support for healthy neurotransmitter function. And I noticed feelings of calm and better sleep from taking this one regularly as well. I also want to highlight a new product they have, which is a probiotic gummy for kids. I love that their regular probiotics are heat stable, so I can easily add these to even baked goods that are baked in the oven or to smoothies for the kids. But my kids are a huge fan of the new gummy formula, and I highly recommend it for kids as well. You can check out these and all of their products, including their K2-7, their prebiotics, their immune support, and much more, by going to justthrivehealth.com/wellnessmama. And if you use the code wellnessmama15, you will save 15% site-wide.
am here with Dr. Elizabeth Yurth, who has so many letters beyond her name that I can’t even list them all in this bio. But she’s a double board certified physician in physical medicine and rehabilitation and antiaging and regenerative medicine. With over 30 years of clinical experience, she continues to stay at the forefront of orthopedics cellular medicine, regenerative medicine, and the future of aging. And she runs the Boulder Longevity Institute and an online system that teaches medical-level training to us as patients so that we can make informed decisions about our own health.

And in this really fact-packed episode, we go through everything from how she and her five kids and her husband go to a foreign country every year with no plans except how long they will stay and they figure it out as they go, which is a fun story. Then we go deep on things like the problems with the medical establishment right now and how we can better take control of our own health. And I love her perspective as a doctor in this world and the advice she gives for patients in how they work with doctors. We talk about a lot about why the current approach to dealing with joint problems is very outdated and problematic and does not address the root cause, and specifically why we often see people needing a series of joint replacements because the root cause is not being addressed.

She talks about how it’s not true that if we overuse our joints, we wear them out and often using them can help the problem. How to deal with joint pain at a root cause level. We go deep on the topic of what peptides are, how they can be used to repair joints, and many other uses throughout the body, how they’re basically short chains of amino acids, your body makes many of them endogenously, and how we can support and replace them as we age.

She goes through the peptides supplements and advice that she uses with her patients for longevity and antiaging. She explains the thymus gland and how its benefit declines with age and how to replace the things that we lose, including thymic peptides and then the foundational things for joint and overall health that, if learned at a young age, can help our kids a lot. As well as her top recommendations again for lifestyle supplements and so much more. Lots of facts in this episode. I know that you will enjoy it. So let’s join Dr. Elizabeth Yurth. Dr. Elizabeth, welcome, and thank you so much for being here.

Dr. Yurth: Thanks for having me, Katie.

Katie: Well, I’m excited to learn from you on various topics today, but before we jump into the health world, I have a fascinating note from your bio. So you also have five kids, and I have a note that every year you guys go somewhere in the world with only the getting there and the destination planned. And I’m definitely a planner, but I love that approach so much, and I would love to hear what was the impetus for making that a family tradition and where are some of the most fascinating places you’ve been?

Dr. Yurth: I think we started that, I think when my we really started doing that when my youngest, who’s now 16, was about six or seven. He’s old enough to throw a backpack on him now, and so we all started, and before then, it was a little bit he was just a little too young, so we said, okay. My husband and I were always
into adventures, and you have a lot of kids. That starts to be harder when you have kids. But we thought, okay, they’re ready. Let’s get them out in the world. So we threw backpacks on and we took him to I think Greece was one of the first trips we did with him. And it was certainly not the easiest thing in the world when you’re six, seven years old and running around with your little backpack on, trying to maneuver your way through these countries.

But it was one of the best adventures. And it’s a little—when you’re that age, you kind of remember sometimes more the bad things than the good things on it. But I remember vividly. We gotten into town, and he had horribly just sick as a dog’s stomach stuff. And so he’s six years old. He’s like, I have to go to the bathroom. I have to go to the bathroom. I have to go to the bathroom. So you’re like, as a mom that you’re running, trying to find a bathroom with this little kid, and basically we made it almost to this bathroom, and then he just has an accent everywhere. Everywhere. So now I’ve got these pants that are dirty, and I have to basically kind of stuff them into a trash can, wrap my shirt around him, and then make to a store to try and buy some new clothes for him. And I think that’s like the one point that has stuck in his head all the way till now at 16, and he still gets teased about it by the rest of the kids.

Katie: Aw, well, I’m sure—because you probably weren’t doing, like, luxury travel either.

Dr. Yurth: No, we did hostels. Actually, a good trick, actually, because you have a big family, too, is because hostel rooms are made as dorm rooms, right? So there’s seven or eight beds to a room, so you actually all get your own bed and you take over the whole hostel room. And hostels are oftentimes now in these sort of really nice places or in the middle of towns, and so you can get this really great huge room with eight beds and you take over the whole room so you don’t have to share with anybody you don’t know. And it makes the perfect place. So we really do a lot more hostile traveling, sleeping on ferries, and we really just throw our backpacks on and go, so it’s always fun. Last year we went to Peru, did a lot of trekking through Peru, trekked up to Machu Picchu, and then this year we’re going to Spain, which is going to hit all over Spain. So it’s incredibly fun and it’s such good bonding because you actually get your kids off of their cell phones and computer games and things like that and you’re all just together.

Katie: I love that. It sounds like you figured out a way to do it in a pretty budget-friendly way, which would make it accessible to a lot of families that might otherwise not consider it.

Dr. Yurth: Exactly. I mean, you really can do it pretty cheaply, especially some of these less expensive countries, like if you go to Asia, places like that, you really can do it cheap. I think people get a little scared to just kind of do this, but it really does work out. Things you talk to people, you learn along the way and it really does work out. I don’t think everything is planned out into some big hotel. You can find places to stay that are safe and reasonable and still do it with a big family.

Katie: And the thing I love most about that, because we’ve traveled quite a bit too, is that looking back in my own life, I can realize some of my tougher experiences ended up being really formative and helpful later on.
But as a parent, you don’t want to make their lives miserable on purpose. But travel has a lot of built-in discomfort.

Dr. Yurth: Exactly.

Katie: That you go through together. So it’s a great bonding experience and a great out of comfort zone experience.

Dr. Yurth: Yeah, we often say that. I think that one of the things that I think life is a lot more comfortable. If I look like my older patients, a lot of them have lived through pretty tough times and I think aside from COVID we haven’t really lived through that many tough times. And our kids, I think, unfortunately, don’t really learn how to be uncomfortable, how to be a little hungry and how to be a little bit too tired and how to carry your heavy backpack even when you’re miserable. I think that those are things that do sort of have some really good formative from a behavioral standpoint. So I do think it’s a really good thing to kind of make yourself a little bit uncomfortable now and then.

Katie: I agree. And well, I’m sure we could very easily have a whole conversation just about parenting and maybe we’ll get to one day. I also want to make sure I learn from your medical expertise because you have a lot of knowledge in a lot of different areas. And so to start off broad, I would love to tackle the concept that you’ve talked about of the problems with our health care system and what we can do about it. Because I say on here a lot. At the end of the day, we’re each our own primary health care provider, and the best outcomes happen when we can find awesome practitioners to work with us as a partner. And it seems like there’s a lot of that in your approach as well, but you have much more inside knowledge on what are the problems with the medical establishment right now.

Dr. Yurth: Yeah, I think that’s a big issue. I come from a very traditional medical background, right. I basically was in an orthopedic practice, a big large orthopedic practice for a lot of years. And the problem with medicine is you’re in this sort of day-to-day grind and you’re trying to see patients every ten minutes as fast as you can, and that’s not really conducive to making your patients well. It’s unfortunate that that is the way medicine is developed and we sort of say, okay, let’s just patch things together and keep people going, but we really don’t make people well.

And so really 17 years ago or so, I was a little frustrated with the fact that people come in, they’d come in with a hurt knee and you would really watch them go from having a little acute injury to severe arthritis a few years later and just kind of nurse them along the way. You’d have steroid job, you’d do some PT finally and replace their joints and realize there’s got to be a better way to treat people and make them healthy. So I really went back to school 17 years ago and started retraining in regenerative or more health focused anti-aging medicine and went back and got a fellowship in regenerative medicine and started trying to incorporate that into my practice. The problem was you couldn’t really do it in ten minutes.
So we then opened Boulder Longevity Institute. So I was kind of wearing two hats. I’d see these orthopedic patients during the day and kind of try and patch them back together and then in the evenings I’d come over here and actually get people healthy. So a couple of years ago I finally brought it all together and do the orthopedic practice within my more functional medicine practice, which has been much better for my clients. But what I really taught my patients is that there’s no way your doctor can in ten minutes tell you what you need to know. And the other problem is you’re working with a doctor who is pretty much stuck in their paradigm. It’s really hard after going to a school for as many years as you do in medicine to turn around and go, wow, maybe everything I’m doing is wrong.

It’s kind of like you just built this amazing house, right? You just spent $5 million and built amazing house. And then somebody comes in and goes, wow, I would have done this different and this different, this different, you don’t want to hear it, right? So you just had to do the things that you learned. You think they must be the right way because we’ve been doing them for 100 years and you keep doing it. And to say that maybe it’s not the right approach is a big blow to your ego. It’s a big blow to everything you spend time doing.

So there has to be the, okay, everything I’m doing might be wrong, and I’m willing to change, which your doctor probably isn’t going to do. So what has to happen is you have to learn, and then you have to find a provider who can work as a team member with you. I always tell patients, if you come to your provider with an article about something and they refuse to even look at it, then find a new provider. You should be able to learn with your provider, learn together, teach each other. I learn a lot from my patients. There’s things I don’t know about my patients of research. If you have a disease, you sometimes become the world’s best expert at that.

And so I learn a lot from my patients who have overcome things have found novel approaches that I might have even thought of. So I think you have to find a provider who is willing to work with you on that. The problem is those are few and far between for exactly that reason. I mean, it is really hard. I could say I stuck steroids in knees for 100 years, and is it the right thing? Probably not. I was probably making a lot of people worse. To turn around and admit that and say, okay, there’s got to be a better way is not easy. So I think to rely on your doctor to do that is probably difficult, if not impossible, in a lot of cases. So our goal is to teach our clients and then work together with them.

Katie: I’m guessing a lot of people listening might have had the patient equivalent of that experience where they have brought knowledge to their doctors and we’re kind of shut down. And I know people personally who have been told, like, don’t confuse your Google search with my medical degree.

Dr. Yurth: Exactly.
Katie: So I feel like doctors like you are few but far between and rare gems when we can find them. But it makes me hopeful that people like you exist and that there are good outlets for people who especially are willing to do the work and do the research and make the changes, and they just need a partner to work with them on the parts they can’t do themselves.

Dr. Yurth: Exactly. You really have to search around and find people. And I think that network is getting a little bit bigger. There’s more doctors who are sort of leaving the more traditional practices and starting to take a different approach, but really has to be a doctor who you can be a team member with. You’ve got to be sort of the pilot/copilot in this. Again, never. If my patients want to try something and I think it’s safe and potentially effective, I’m going to work with them to help them to do that. That should be my job. I always say it’s a little bit like your financial advisor, right? Your financial advisor, he’s going to say, this is what I think you should do. But ultimately he’s not going to be putting the money in the account. You are. And so I think the same thing has to be true. You’re working together with somebody for the best end outcome.

And like you said, I have people all the time where they come and go. My doctor said this and I said, can you ask them to show me the article on why they’re saying that? Because I have never seen that approach. And if they can’t show you the article, if they can’t support it and you can support what you’re doing, then more power to you. That’s what you should be doing. So we put together this whole academy called Human Optimization Academy. That is, we’re teaching people the way doctors should learn. We’re teaching them by peer reviewed literature. We’re teaching them with courses that are step by step, how to interpret your labs, how to eat the right way. So all these pieces are put together for people and we’re trying to teach it more in like a medical course as opposed to Instagram influencers. Trying to teach you.

Katie: That’s awesome. And you touched on something else that I think is really important and that I wasn’t even super aware of until recently, which is the joint health aspect, because I found out recently, like, people my age are having joint replacements, which to me seems really young. But now I feel like this is like it’s in my awareness now and I’ve just committed to doing a heptathlon. So I’m aware of wanting to kind of future proof my joints since I’m now trying to try these athletic endeavors for the first time in my 30s. But can you explain from the inside perspective what’s wrong with the way we’re currently thinking about joint health and what do we need to shift?

Dr. Yurth: So this is my passion because I’m coming from an orthopedic background into a functional medicine world. And even in this world of health focused medicine, most people don’t put joint health into that same category. They think about brain and they think about heart and blood sugar control and energy and libido. They think about all those things. But joints are just something that you overuse them, they wear out. And really, that is very untrue. In fact, all the evidence supports that your knee arthritis is much more likely to be a problem if you sit in front of a TV than if you run. So we do not wear out our joints any more than you wear out your brain by using it too much, or you wear out your heart because it beats too much. That just is not the way we’re designed.
So what happens is that we have genetic predispositions, just like you do to your brain health or your heart health or anything else. We have genetic predispositions. And so you may be more genetically challenged in terms of your joints, and then maybe you do get a little injury, right? You tweak your knee running, and best-case scenario, if everything was well, you would heal that injury, you’d go on and everything would do fine. But because a lot of us don’t have everything we need, either from a diet perspective or genetic perspective, or the right supplements or the right hormones, what happens is you start this inflammatory process. If that inflammatory process doesn’t turn off, then you continue to degrade cartilage. So we now know that osteoarthritis, what’s always been termed wear and tear arthritis, is not wear and tear. It is an inflammatory disease related to high levels of certain proteins that are damaging cartilage and certain enzymes that are damaging cartilage, and those enzymes not turning off appropriately. So you continue to eat away the joint.

So think about what happens with an injury. Your body has to come in and try and heal the injury, but then, so it brings in all these cleanup group. So like little enzymes that sort of gnaw away at the damaged cartilage, those enzymes don’t turn off, they start gnawing away at the good cartilage and you start this destructive pathway. So if you think about this as an inflammatory disease, just like wearing out your brain is, then you have to address it completely differently. It’s not stay off your knee and then let’s stick some steroid into it and then we’ll replace it in ten years. It is let’s stop the inflammatory process, let’s stop what has gone wrong in this joint.

So now we have medications that we can utilize to turn off these enzymes. We have peptides and supplements that will change this whole inflammatory protocol. This needs to happen, like, even if, you know, I tore my first anterior cruciate ligament in my knee when I was 16. It’s been a downhill course ever since then. So what happened in me is that I started this inflammatory process. I started destructive process. Yes. Was it wear and tear? No, it was an overreactive immune system, just like what happens in other diseases.

So we have to start thinking about this as a disease, not a natural wear and tear, because you overused your joint. That using your joint is probably a very good thing for it. So that is not taught, it’s not how we’re dealing with joints. Unless we start shifting our paradigm on this into it is an inflammatory disease, not a wear and tear disease, we’re going to continue to have problem. So you go to your orthopedic surgeon and he’s going to let’s go in and clean that knee up, right? You hear this all the time. Somebody has a painful knee and they get an MRI scan, it shows a little tear in the cartilage and the orthopedic surgeon goes, well let’s just go clean it up. It’s exactly the same scenario as you come in with your mother who’s suffering from dementia and the neurologist you see goes, oh well, let’s just send you the neurosurgeon to clean up those bad parts of the brain. Not going to work. Cleaning up bad parts of the brain makes the brain worse.

Cleaning up bad parts of the joint increases inflammation, increases destruction. It’s the first step to progressive arthritis is when somebody goes in there and starts destroying more cartilage by trimming it away. So for instance, arthroscopic debridement of joints here in the US is a bread and butter surgery. It’s a number one surgery done by orthopedist is banned in every other country because it is so ineffective and in fact shows such significant progression of the disease process after people have arthroscopic surgery and so pushes them forward to a joint replacement much earlier than that they have stopped allowing it in other countries like Europe. So we, we are we’re doing things wrong. It’s not being taught, it’s not being spread. Even among my crew, my
people who are progressive thinking functional medicine doctors, they sort of put joints into a different thing and send them back to the orthopedic surgeon.

Katie: Wow, it makes sense when you explain it like that. And if it’s an inflammatory disease, that means it’s likely from the functional medicine side having crossover effects other places in the body. If you’ve got that overactive immune system and when you re-frame it like that, it makes such logical sense that good forms of movement would actually be really good and important for both prevention of that and recovery of that and also for other areas as well. Like I’ve heard muscle, your muscle tone be called the organ of longevity. And so we’re also building skeletal muscle which we know correlates to hopefully longer life and better health span.

What blew my mind was reading about these placebo or sham surgeries where they would do the surgeries on one group and just do an incision on the other group and send them to physical therapy and there was no difference in outcomes. And that blew my mind because like you said, I know people my age having these surgeries.

Dr. Yurth: And actually two years down the road, the sham group did better than the surgery group. So the sham group actually didn’t suffer the detrimental effects of having the surgery. So that study followed out, the people who had the real surgery actually were doing worse than the sham surgery. People who were just treated with conservative measures. We need to keep people moving. We need to treat them with the right nutrition. We need to have them continue to exercise. You’re right. Muscle, muscle is the currency. Muscle is actually an endocrine organ. It makes what are called myokines. It makes things that actually help repair. So you’ve got to keep people moving. The worst thing you can do is tell somebody who comes in with joint pain, just rest, stop doing everything. Obviously you have to work within a realm of not hurting but you’ve got to keep them moving.

Katie: That makes sense. And it makes me curious, from your perspective, since you’re on the ground with this every day, what some of those approaches are, that we can do both from a preventative perspective or for people who already have joint pain to sort of undo that inflammation and to work backwards from a restorative perspective versus the just steroids in the knee kind of perspective.

Dr. Yurth: Right. So that’s where if you think about it as an inflammatory immune process and there’s actually a couple of very specific, something called interleukin 1 beta, these metallomatrixproteinases, something called MMP3. Those we know are very, very elevated in these joints. So how do we bring those down? Well number one, we know that actually having why do you see people get more arthritis as they age? Well, one of the things is the loss of hormones. So for instance, progesterone. Progesterone, women start losing in their early 30s, right? Sometimes even younger. Progesterone actually is very anti-inflammatory. It helps our immune system. So it’s an immune modulator so it helps to lower those inflammatory proteins. There’s also progesterone receptors on joints. We always think about progesterone for the uterus, right? But there’s progesterone receptors on joints. There’s progesterone receptors in our brain. So progesterone becomes a very, very key player in healing and recovery.
So as women start gaining their 30s and 40s and on and their progesterone levels start dropping, they get this more creaky achy joints and then you start seeing, okay, now I need to have my knee scoped or my hip scoped and now I need to have my joint replaced oftentimes. A little bit of progesterone for back pain. I used to treat women with back pain all the time. Was just giving them some progesterone their back pain would go away. So you’ve got to get hormones balanced. That’s really very important. Right?

And then look at where there’s potentially micronutrient deficiencies and things like that. But we use a lot in our practice what are called peptides to help repair joints and work on these processes. So peptides are basically short chains of amino acids. A protein is 50 amino acids or more. A peptide is less than 50. Okay? So it’s basically just amino acids put together, say an arginine, glycine, cysteine, basically all put together in different sequences. And those make up peptides. And people always think about, well, I’m going to put some foreign thing that’s not approved in my body. So peptides your body makes, for instance, insulin is a peptide. So basically your body, you eat glucose, your body makes insulin, insulin goes to heal. Same thing happens with other peptides in our body.

So for instance, our gut makes a peptide gullet called BPC, body protective compound, or BPC-157. BPC-157 is made by the gut in response to both healing the gut. So it’s really good for healing the gut, but also for healing joints. So if you have an injury or a tendon to a ligament, to a joint, you can use BPC-157. You can give back the same peptide that your body is making less of because you’re older, or because you genetically don’t make as much, or because you’ve taken a lot of things that have depleted the sources of it. So we can give back this amino acid sequence and help your body to heal faster. BPC-157 is not only immune modulatory, it actually helps improve collagen function. It will help brain. So it’s actually preventative for brains and it’s really good for the gut, unlike anti-inflammatory drugs which destroy the gut. So you’ve got this wonderful anti-inflammatory that’s actually beneficial to you. Much safer than taking a bunch of Advil and yet people don’t know about it, people don’t use it. So that’s one of the approaches.

And then there’s another peptide called thymus and beta 4, which is made by, when we’re young with this giant gland in our chest. It’s called the thymus gland. And the thymus gland, huge when we’re babies. So if you look at a baby, it takes up their entire chest. Look at an x ray of a baby’s chest, they got this big, huge mass in there. And that’s thymus gland, thymus gland is really helping when we’re little to help us grow and heal. That’s why you don’t see kids get injured for long, right? And it also is a really key player of the thymus gland in our immune system. So when we’re babies, our immune system needs to know attack that it’s bad, don’t attack self, you’re good. So we have to teach our immune system that. So in babies, we’re teaching our immune system that.

At puberty this giant gland starts to shrink. By time you’re old like me, it’s this little teeny fatty thing in your chest that’s not doing anything. So we’ve lost the thymic peptides, what does that do? Our immune system goes haywire. We don’t have the education to our immune system anymore, so we start getting less immunocompetence. So old people start dying of viruses and things like that. Inflammation starts increasing. But thymus and beta 4 is also really important for collagen actin healing. So you need it for joint healing, so
you can use that combination of BPC, thymus, and beta 4 to help heal joints, heal tendons, heal ligaments much more rapidly than you can just by throwing somebody on Advil which is not going to do anything to heal them.

So replacing the hormones, replacing the peptides that we’ve lost in our body. I always say you’ve got to replace what’s lost. Replacing those peptides that you lose in your body. And then lastly we use what are called repurposed drugs. So one of my passions is understanding the cell. Everything comes down to our cell going haywire. For most diseases, same disease process, the cell is dysfunctional. It’s not doing things right. So how do we fix these different pathways? If I know interleukin 1 beta is high in you because you’ve got this bad joint and metallomatrixprotease is high. What can I find that blocks those? So I go back to the literature and I say oh look, this drug, we use it for something else. But the way it works is by blocking these. So it’s a drug that’s probably going to come to market in a couple of years called Xylisol and right now it’s an oral medication used for bladder inflammation. The way it works on bladder inflammation is by reducing those things I said were high, those bad enzymes and those bad, those bad proteins. So we can get that drug, it’s called Elmiron. Except orally it doesn’t work for joints. But if you get it and you have it made into an injectable form it works incredibly well to not only stop progression of arthritis but actually rebuild cartilage.

So the company that makes this drug who’s coming to market again in a couple of years so they’re kind of fast-tracking it through trials actually just completed in their phase three trials where they showed MRI scan improvement in cartilage heights. We know we actually didn’t just stop the progression and stop the pain. We actually reversed the arthritis with this drug. So we’ve been using this drug for about three years because it is available. Once you understood what it did, right, we could find this drug, we could have it made into a compound in medication that can be injected in and it can reverse, it dramatically helps with pain but it can also reverse arthritis. So by using those kind of techniques we’re addressing the problem. We’re correcting the things that have created the abnormal immune function, the ongoing inflammation and now we’ve thrown something into the mix that may actually be a cure because it’s completely working on what is dysfunctional in this disease. So that’s the way we kind of approach all diseases is looking at these pathways and where can we pull in things that we know exist to help these pathways. Does that make sense?

Katie: It does. And it seems like you’re taking a truly first principles approach by not just building on assumptions that already exist within the industry but going back to the root cause and then asking better questions from the ground up, which I think in any discipline leads to typically better answers than just building on assumptions and trying to iterate slightly from existing assumptions. But it makes me curious because a couple of things you said stood out of, like, the anti-inflammatories having a negative effect on the gut. And I’ve been volunteer coaching some high school athletes this year, and whenever any of them get any kind of injury, the advice given to them is typically take anti-inflammatories 24/7 for at least a week, probably two weeks, rest and stop moving. All these things that go counterintuitive to everything that you just said. So it makes me curious what things as parents are foundational to joint health at a young age while kids are still in that great stage of immune system health and muscle development, and that you wish you had known maybe at 16 when you had that first injury.
Dr. Yurth: It’s very interesting. So my 16-year-old just broke his ankle playing volleyball. My approach to him was extremely different. Right. Number one, we know that anti inflammatory drugs impede bone healing. They slow bone healing. We want some inflammation. When you acutely hurt yourself, it’s a little bit like when you have an illness. Fevers are not bad. Fevers get bad if they go on or if they’re too high. But fevers are your body’s immune system trying to create an inflammatory response to fight up that virus. Now, if I hurt myself, the first thing I want is I want my body to try and start an initiative, initiate a healing process. That’s inflammation. Inflammation is not a bad thing, acute. We want it to come in. That’s what starts the healing. So if I blunt all that acute inflammation, it’s not necessarily a good thing, right? Sometimes you have to use them because pain is too severe, things like that. So I’ll use them, so I’ll use them at a minimal level.

So antiinflammatories, they’re a double-edged sword. Yes, they do help with pain, but that swelling, inflammation, acutely in that first week is actually critical to healing. So you really don’t want to impede it. There’s some great studies on people after surgeries, how much faster they heal by not using anti inflammatory drugs. And in fact, a study that came out on joint replacements recently with hip replacements showed that the people who did not take anti-inflammatories fared much better than the people who did.

So we may be not doing the right thing by icing anti-inflammatories and resting. We may want to actually start some gentle motion, not actually throw a bunch of ice on it, acutely, use it just as you need it. Obviously getting the joint up, you’re not going to stand up on your broken leg right away, but as soon as you can start moving, you want to.

So for my son, what I did is I obviously put him into a cast boot because he had a broken leg, but I stuck him on BPC and thymus and beta 4. He did not take anti-inflammatories, he did not overdo ice. He iced a little bit, he kept it elevated just because it was painful that first few days. But as soon as he was able to, I had him up walking, partial weight bearing with crutches and a boot, using the BPC, using thymus and beta four, increasing his protein load. Right, so you talk about it’s hard, you’ve got six kids, you know how hard is to get them to eat well, especially teenage boys, right? That’s not their forte, is not to eat healthy. They tend to go for carbs and sugar.

But what we need for healing is a whole lot of protein. So you’ve got to be really pushing and increased protein intake. So you’ve got to get their protein intake up, 150 grams of protein into them. So you’ve got to increase protein, get them off of the carbs and sugar, start them moving. Ideally, limit the number of anti-inflammatories you’re taking with them. Ice acutely probably isn’t the best thing. So it’s a very interesting data on whether our old ice rest ice compression is the right thing. I think. Again, you always have to try and get their pain under control. So sometimes it is a lesser of two evils. So that’s the approach that needs to be taken.

And then, for instance, when a severe injury, like a territory ligament, something like that, where you’re now facing surgery, what we’ll do is put these people on these kids, on Pentinin, so on this drug, Xylisol, because we have access to it, we’ll also do a procedure where we’ll actually take a protein out of their blood. It’s called alpha-2-macroglobulin. It’s a protein that we can actually isolate out of the blood, which actually initiates a
healing response very acutely. So basically, you can take this protein out of the blood, inject it right after surgery and really blunt the over regressive inflammation and stop this downhill from life. We know that people after anterior cruciate ligament tears, 80% of them go out and develop arthritis. How do we avoid that? We stop this overactive inflammation.

So getting them to eat right, getting them to move, avoiding anti-inflammatories. If you have access to these peptides, again, that’s limited by who you know, you can heal much, much faster with those types of things. But there’s supplements that can be helpful there too, in terms of healing. So there’s things that you can sort of add in, like collagen, especially a collagen called FORTIGEL collagen, we know can enhance healing. So using collagen, high dose vitamin D is going to enhance collagen production. Vitamin C is going to enhance collagen production. So some supplements you can add in usually use FORTIGEL type collagen powder. Mix it with a little vitamin C and some vitamin D and you’ll enhance healing.

Katie: And those seem also really good to know from the preventative side as well. I’m so glad you brought up protein. Anytime I get a chance to step on the protein soapbox, I’m all for it because it took me way too long to learn this lesson. And I’ve seen at least anecdotally how much drastically better I feel when I eat enough protein, how much muscle like it is night and day.

Dr. Yurth: We are so underdosing protein. The old adage of 0.7 grams of protein per kilogram body weight is too little protein. It really should be a gram of protein per pound of lean body mass. So if I’m 135 pounds, I need at least 135. And I do a lot of muscle building. I shoot for 140 to 150 grams of protein day. It’s hard to do. That’s not easy. And our kids, I look at my son, I’m trying to push protein shakes into him and things like that. It is hard to get enough protein. And then we kind of say, oh, as we get older, we need less protein. Exactly the opposite. We need more protein as we age. So when you get to be my age, where it’s harder to maintain bone, it’s hard to maintain muscle. You’ve got to get protein intake. And when I look at my little old ladies who are 80, I look at the protein intake. Sometimes they’re getting 30 grams of protein. They need 150 grams of protein, and they’re not eating much. Of course, they start losing muscle and they start losing bone. So you’re exactly right. I’m on that protein soapbox all the time.

And it’s funny. I like this one patient, she’s like 75 years old, and she’s very healthy. But I said, You’ve got to get your protein intake up. She’s like, oh, my God, you’re killing me, trying to eat as much protein. But now she feels so much better. Like what you said. Me too. I mean, honestly, when I get enough protein in, it is massive how different I am, the gym and my weightlifting, how much better it is.

Katie: Yeah. And just baseline energy. And I get it. It is difficult. I am finding very much that eating enough protein is the hardest part by far. It’s not the workouts. Those get really fun. Getting enough protein every day is the hard part. But I’m trying to build it into the family culture also as a mom. And first of all, model it for them. And second of all, make sure there’s always protein available because it seems like and it makes sense, like they get sick less often, they recover faster. If they’re getting enough protein, even just from hard workouts, they recover so much faster.
Dr. Yurth: And the developing brain needs a lot of protein, right? So you look at these kids who are eating nothing but carbs and sugar and what’s happening to their brains. And of course, we’re going to see ADD and ADHD and all these things when honestly, if you can just get these kids really what I always say, it’s protein first. The first thing you eat is protein and if you’re not full after that, then you can add some carbs in. But honestly, you’ve got to load the protein first.

Katie: Absolutely. And also I’m curious, so you’ve explained the whole process by which joints have issues. Then it gets worse over time. For someone who is at one of the more advanced stages of that or has been told they maybe need a joint replacement, are there still alternative approaches that sometimes work or at that stage, is joint replacement the actual best option?

Dr. Yurth: It depends on if somebody truly is now just bone on bone and they’re having horrific pain, then joint replacements can be life saving and they can really hugely change people’s lives. And so I’m not going to say they’re never needed, but up until that very end stage, there is so much we can do. I have so many people who have been told there’s nothing you can do except a joint replacement and they are pretty close to bone on bone. And we put them on an Xylisol and pentosan polysulfate and we start them on some peptide therapies and then we will do regenerative procedures. This alpha-2-macroglobulin I was talking about, where we take blood, we spin out this protein that’s very helpful to healing and recovery. We’ll inject that into the joint and then you can use stem cells. All of these things can be really beneficial.

And I would say I certainly have patients who I look at them and go, you know what, the best thing for you is to just replace the joint. It’s going to be the most cost effective way to kind of get around this. But 80% of the people we see are not. There’s other options for them. And again, with this data that just came out with pentosan polysulfate showing, I think, 30% improvement in cartilage height in the group who was on the drug versus 4% loss in cartilage in the group who was on a placebo. We’re reversing these changes. We used to say you couldn’t do that. Well, now we know you can. Now when you add in these other things, it’s going to be even better. So we see people who are pretty much the only hope they’ve been given is joint replacement. I would say 80% of them, there’s something more you can do. 20% of them I’m going to say, you know what the best thing for you is just go replace the joint.

BUT—I’m going to caveat that with if you’re going to go replace that joint, remember, this is still a disease. Why did so many people, they have the left hip replaced and now the right hip goes and their knee goes you’ve not treated the disease right, so you still have to go back to that person. Let’s replace this hip and let’s get this disease under control. You still have the disease, your other joints are going to go, you’re going to have problems. Let’s treat the inflammatory disease too.

Katie: That makes sense. It’s a whole missing piece. And you do see that cascade a lot. I know so many people who as they’ve gotten older, have had so many joints replaced and it seems like it just keeps escalating.
Dr. Yurth: It’s a cascade.

Katie: Got you. Well, and to circle back to peptides for a minute, we talked about them in the bubble of joint health. But I know that there are many uses for these, for longevity, for other purposes outside of joint health, and that you work with a lot of patients on this. So can you give us kind of, I know it could take hours and hours to get through all of it, but an overview of who can benefit from peptides and what other uses peptides have?

Dr. Yurth: I think everybody can benefit from peptides. Again, people get so scared of these things. They’re like, oh, that’s some wacky stuff. And again, these are things that are largely a lot of the peptides we use are naturally made by our body, meaning they’re endogenous. We make these, they’re chains of amino acids that we make. We can just give back again, give back what’s lost, right? If we can keep our peptide levels just like our hormone levels to where they were when we were younger, we’re going to fare better in the world of longevity.

Remember, there’s at least 140 peptides right now that are in clinical trials for treating diseases. So the pharmaceutical world is on to peptides. It’s not as though these are just a functional medicine world thing. There’s 60 that are FDA approved for cancer, orthopedics, fertility. So they’re being utilized in every field. These are not some sort of wacky thing that’s just out there being done among the non-traditionalists.

The hard thing about peptides is you need to know how to use them. You need to know how to get them. They should be from compounding pharmacies, not just bought off the internet. But you can use them for all sorts of pieces of longevity. So for instance, I think the one that has come to everybody’s hearing about is Ozempic or semaglutide. Semaglutide is a peptide, what’s called a glucagon-like peptide receptor agonist, GLP-1 agonist. So it’s a peptide. We’ve been using semaglutide as a peptide long before it started getting, making its way into Hollywood world of weight loss. So now everybody’s heard about it for weight loss. It has a huge other benefits for brain health, for cardiac health. These GLP-1 agonist have a lot of other benefits. So we’ve been using semaglutide from a longevity health, brain perspective for years before it kind of became this evil drug that’s helping people lose weight. And I will say it’s a great drug for helping people lose weight. That’s one that can be very useful.

Growth hormone. Years and years and years ago, what we had to use to replace growth hormone, which declines in our growth hormone starts declining and that does contribute to loss of muscle mass, loss of bone, loss of brain health. So we want to keep growth hormone levels up if we want to age better. But growth hormone is expensive. It’s a little sketch to get. And I can tell you because I was around before peptides, it is hard to dose without getting side effects. It’s very difficult because you’re giving huge doses of growth hormone and then they’d be too high and then people get side effects.

So we can use instead what are called growth hormone secretagogues. They’re peptides that just make your body naturally release more of its own stored growth hormone. So it’s much more homeostatic, much more
like what your body is doing. It’s just replacing the normal levels for you. So we can use what are called growth hormone secretagogues like CJC and Ipamorelin. Those are great longevity tools. So we can use them from that perspective.

We can use them for brain, for people who have cognitive decline diseases like Parkinson’s, there are a lot of what we call nootropic peptides, peptides that really help brain function. There’s a peptide called Dihexa that has been being looked at in the Parkinson’s world, but it’s available, again, it’s just a chain of amino acids that you can use as a peptide, as peptides that will help with sleep, something called deep sleep inducing peptide. So they can be used in almost every realm. Mitochondrial health, energy levels, glucose control, all those things have peptides that are much, much safer and more physiologic than their drug counterparts.

I don’t know that there’s a disease that I can’t come up with a peptide for, but if I sort of looked at just what I have most of my patients take from a longevity world, they’re going to be using the growth hormone secretagogues. They’re going to be using BPC and the thymic peptides to keep their immune systems healthy and keep their reparative processes on key. Then they’re going to be doing things like cycling some of the peptides that are helpful for replacing mitochondria. Remember, mitochondria are the powerhouses of our cells that will give us all our energy. As we age, the number of mitochondria decline. If you look at the most mitochondrial dense tissues, it’s brain, it’s heart, it’s muscle. Those are all things that go as we age as well.

So we can use a peptide called MOTS-c, which again, natural peptide that our mitochondria make. You can give that back and it tells your body to make more mitochondria. So I have people cycle on that. My goal in peptide is just like my goal in hormones. It is replace everything that is being lost so I can keep it at a level when I was 18, 20. And if I do that, the hope is I’m going to delay the aging process and age in a much more healthy manner.

Katie: Got it. And we’ve talked about things that seem like generally great rules of thumb for aging more gracefully, like consuming enough protein, getting the right kinds of movement. I would guess getting sunlight in the correct doses is probably one as well.
LMNT brings the grapefruit salt flavor to help you enjoy that balance all summer long. You can consider grapefruit or any of their flavors, your ultimate summer salt companion. And I love that they combine sodium, magnesium, and potassium in the clinically studied ratios to make sure that you can stay optimally hydrated even if you are saunaing or exercising or just spending time outside in the summer. Find out more about LMNT by going to drinklmnt.com/wellnessmama. And this is a one time flavor so when it's gone, it's gone for good. I highly recommend that you try it. I also would suggest trying watermelon and mango chili if you like a little bit of a spicy kick. But watermelon, like I said, is the kid favorite at my house and you can find those and all of their flavors at drinklmnt.com/wellnessmama.

And you mentioned progesterone before and how that for a lot of women in their 30s can become a factor. What form—I know this is a controversial topic, but what form of progesterone do you find helpful? And is that something that you think is worth for a lot of women actually replacing as they get older, preventatively?

Dr. Yurth: I think all the hormones need to be replaced and need place to be replaced in synchrony. If you look at the other thing that declines in both men and women and men it’s testosterone. You need that for muscle building. Progesterone is the one hormone that is safe taken orally. It’s the only safe oral hormone. Estrogen and testosterone are not safe taken orally. So one of the problems with birth control pills is they increase clot risk. Transdermal estrogen does not do that. Only oral estrogen does, only have to go through the liver. So you have to stay away from estrogen and testosterone, both of which are liver toxic if you take them orally. But progesterone is fine orally.

In fact, it’s better for the brain orally. Where the confusion comes in on this type of progesterone, there’s only one type of progesterone. But what’s in things like Tremorin, which is what was sort of the drug that was used in the Women’s Health Initiative study, which scared everybody away from hormones, is a progestin. It’s not progesterone. Our bodies do not make progestins. They make progesterone. Progestins are a completely different compound and they have a very different effect. They do not help the brain, they do not help the joints, and they are carcinogenic. So we’ve been using progestins in a lot of these sort of hormonal things, including birth control pills, progestins instead of progesterone. And you have to give progesterone.

Now, if you buy progesterone from a pharmacy, it is the same as compounded progesterone. So there’s this kind of, I think, elitism in the functional medicine world saying, oh, you have to use bioidentical. Progesterone is progesterone. Estradiol is estradiol. Those are bioidentical. What is not bioidentical is using things like progestins. So estradiol, whether I get it from my compounding pharmacy, whether I get it from as a patch from my regular pharmacy, is still estradiol. Thing a compounding pharmacy allows me to do is use different forms of it. For instance, I can dose it a little differently. I can use it as just a transdermal cream. But those are available and sometimes cheaper, less expensive through pharmacies. And I think that I hear this all the time. You have to get this bioidentical estradiol. If it’s estradiol, it is estradiol. It is bioidentical. So get that out of your head that this is and I think it’s a confusion even in the functional medicine world, that there’s bioidentical estradiol. Estrodiol is estrodiol. You can get estrogens from regular pharmacies.
Again, you have to take estrogen transdermally to avoid the negative effects. When you look at things like blood clot risk, that is an oral estrogen risk. There’s zero literature. Zero. Not one study that shows transdermal estrogen causes blood clots. So there’s no evidence of that. It’s also liver cysts from oral estrogen. So we know that oral estrogens are not good for us, but transdermals are not going to have that same effect and they have a very good effect for brain, cardiac, muscle. They all need estrogens. So transdermal estrogen, transdermal or injections of testosterone because that is liver toxic. But if you don’t replace these things, you really can’t age well.

The whole myth that hormones cause cancer is is outdated. It’s based on some flawed evidence that even the authors of the Women’s Health Initiative study came back and said the study was misinterpreted and it really was just progestins that we’re causing cancer. Estrodiol, not. Estradiol, patients did much better in terms of bone density, cardiac health. So we need to get that out of our head. We need to dose these appropriately. We need to follow how they’re being metabolized by people to do them right. But you’ve got to replace them if you’re going to protect your brain and your heart. You have to replace testosterone if you’re going to build muscle. I can send my patients to the gym all day long. If they have no testosterone, they’re going to see any benefits. They’re going to get frustrated, right? So if I look at an older woman like my age, they’re going to have almost no testosterone and I’m going to say, you got to build muscle. They can’t. They’re like, I go to the gym every day. I’m not building muscle.

It’s a little bit like me telling my, we know sleep is important. If I don’t have any progesterone, I can’t sleep. I don’t care how many times people say you just need to meditate and turn off your TV and wear your blue light glasses and all, they’ll be fine. It’s not if you don’t have progesterone, you are not going to sleep. So we have to kind of stop blaming people and saying you just need to eat better and sleep better. We have to give them back what they need to do that. And that includes things like hormones. And I’ll say in my mind, it includes things like peptides. If we’re really going to give the body back what it’s lost at my age, right? If I think I’m going to do it all with just exercise and diet, yes, those are critical players. Critical. But you’re going to have to give it some help as well. I think that was off topic from the question?

Katie: No, that was perfect. Are there any other generally helpful supplements or lifestyle factors that you recommend for people who are interested in the anti-aging or longevity side?

Dr. Yurth: I’m going to say from a lifestyle perspective, you’ve got to lift weights. I see so many people who get into the just they’re running. I’m in Boulder. Running is huge, right? And I won’t say there’s not benefits to running, but you really have got to lift weights and you have to lift heavy weights. You can’t just go and lift two pound weights. You really got to lift heavy. You’ve got to form muscle. Muscle is really critical to not only your bone health, it’s important to your brain health. Our muscles produce again, they produce BDNF brain-derived neurotrophic factor to help our brains. So it’s really critical to build muscle. You’ve got to get in the gym and you’ve got to lift heavy weights. So I’m going to put that as kind of top tier. You’ve got to lift weights you can’t just rely on. In fact, I’ll put cardiac lower than weightlifting.
From a diet perspective, you could talk all day on diet, right? And it’s very hard to know what the right diet is. You’ve got the carnivores and you’ve got the vegans, and everybody’s got their and there’s evidence to support a lot of it. I think a good, sensible, Mediterranean type diet works for most people. I think we all got into the time restricted eating and intermittent fasting, which is a great tool from a longevity perspective. It really is. What I find, however, when people start getting into this restricted, time-restricted eating, right, they’re eating one meal a day or in a four-hour window, I start looking at their protein and it’s very deficient. So you have to sort of say, can I actually get enough protein? Can I get my 150 grams of protein in that four hour window? I can’t. I mean, it’s impossible for me to eat that much in my four hour window or to actually digest that much protein. So maybe some people can. But I think that’s where we have to sort of weigh is that necessarily have we trended all of our trends? Sometimes we swing too far one direction.

So I don’t think time-restricted eating practiced every day is a great thing. I think it needs to be potentially cycled on and off for the benefit. So from a diet perspective, I think a good, sensible Mediterranean-type diet and I think that the time restricted eating intermittent fasting needs to be done sporadically and not continuously, if you look at the need for protein and nutrients. From a supplement perspective, you mentioned sunlight. So vitamin D, that’s where we get vitamin D is sun. A lot of us are just not here in Florida, so if you’re lucky, you can get sun a lot more. But everybody’s like, okay, you got to wear sunblock because now we get skin cancer and we get wrinkles. So we have to wear sunblock, sunblock blocks vitamin D. Our kids are deficient in vitamin D because being good moms, we smothered in the sunblocks since that time we’re babies. Like my generation, we were laid on tin foil with our Hawaiian tropics oil on.

So you’ve got to take vitamin D, and that’s best taken with vitamin K2 as a supplement. With K2 and with magnesium. So those three supplements together kind of are, I think, sort sort of of critical. From a supplement perspective, that’s a hard road. I think you want something I really like Athletic Greens, AG1 as sort of cover a lot of bases from a nutrient perspective because it’s an easy little green drink that I can get down that has it covers a whole lot of needs, including prebiotics and probiotics.

The fish oil debate is a very interesting one that we could talk, have a whole conversation on. I used to be a huge proponent on a lot of omega-3s. Pushing a lot of omega-3s are anti-inflammatory. They’re good for your heart. Now, what we’re learning is that high-dose omega-3s oftentimes become oxidized, either in the bottle or in our systems. And oxidized omega-3s are very bad for your cell membrane. So we’re actually getting off of the omega-3 trend. And if you still love your omega-3s, you need to be taking them with taurine to counteract the oxidative stress. So a gram of taurine with your omega-3s.

But what we’re looking at instead now are 15-chain carbons. So something called fatty15, which is a 15-chain carbon, and 15-chain carbons do not oxidize the way 3-chain carbons do. Yet they give all the same benefits to your cell health and more. There’s a lot more processes that are helped by 15-chain carbon. So a company called fatty15 has come out with a 15-chain carbon that sort of bypasses the omega-3 problem. And I’ve trended to having all my patients take a fatty15 supplement. It’s one or two a day, so it’s really nice. It’s not eight fish oil tablets a day. And so fatty15 is probably going to pan out as something kind of ongoing thing that people need.
And then I like something that if you’re really working on muscle building, helping with something like creatine. Creatine, 5 grams a day. As we age, we need it for our brain. Everybody needs it for muscle building. That’s a great thing to do. Throw in your protein shake, 5 grams of creatine. You can buy it inexpensively off companies like bulk supplements, and throw 5 grams of creatine into your protein shake. That will go a huge long way for maintaining brain and muscle. It’s really probably a critical ingredient also for helping in our cell methyl transferase processes. So it’s probably a really key piece.

And then. What I like, because we’re not doing as much of the intermittent fasting, is using things like fasting mimetics, spermidine. Spermine is a polyamine that it’s a polyphenol. It’s found in some foods, but in very low quantities has a horrible name. First isolating from semen, but some very high levels in semen and breast milk. Anything that’s in high levels in semen and breast milk is really important to our health. So spermidine can be cycled at a high dose four times a year. You do like six milligrams for 30 days, four times a year to cycle in this big autophagy. Clean off out all the bad cells. It’s your clean house, spring cleaning. So four times a year you can do a high dose, and then you can do a maintenance dose of like two milligrams a day just to kind of keep the house or tidy. Right. But four times a year you want to just clean out all the bad stuff. And so doing a higher dose of spermidine is a way so that may be a workaround. Things like having to do as much fasting, what we call fasting mimetic, it acts like fasting for us.

So those are kind of some supplements that and we could talk all day again on supplements because I have a lot of opinions there, too. I do want people to remember that taking more supplements is not necessarily better. You have to be careful when you throw a whole bunch of antioxidants are good, right? Well, antioxidants are good in certain amounts cycled. We need oxidative stress. That’s how we rebuild. So if you are always taking tons and tons of antioxidants, you’re taking your resveratrol and your vitamin E and your vitamin C, you’re always taking tons of antioxidants all the time, you’re actually turning off some of the good oxidative stress. So that’s not a good thing. So you have to really think about this. It’s not just throwing a whole bunch of stuff into the mix. You’ve got to cycle things. You have to know what you’re doing with them. I think that’s why you need a guide to help you work with this, because it is a lot.

Katie: Yeah, that was a great list. And I definitely will say for me personally, the highest ROI things I’ve tried lately probably have been the things we’ve talked about. Some of those supplements, protein consumption, lifting heavy weights, and then instead of cardio, just sprinting, which there’s a lot of data on sprinting.

Dr. Yurth: Exactly.

Katie: When I just looked at athletes, I’m like, which physique would I want? And I’m like sprinters.

Dr. Yurth: Yeah, look at the endurance runners. They don’t necessarily and they’re not really equipped to go along. They’re not really equipped to be able to withstand the zombie apocalypse. Right, you’re right. So HIIT
training. Short bursts really only need about twelve to 15 minutes. But you got to hit it hard, right, where you sprint rest. Sprint rest, sprint rest. But you only need like 12 to 15 minutes of that. So that’s easy to add in into your regimen. You don’t need to go out for 3 hours of running if you love it because it gives you this runners high, then go do it. But you got to do the other stuff too.

Katie: Yeah, that’s my routine on actually podcast days. I’ll be doing that after this. I have an obscure question, but you probably are the best person in the world to ask about this. So I inherited some of these athletes that I’m coaching who have shin splints pretty bad. And the only advice I’ve seen for shin splints is just rest it entirely till it’s done. And now I’m thinking is there a reframe of that? Considering we’ve established that maybe rest is not always the best option, but is there any other alternative for shin splints?

Dr. Yurth: Shin splints are tough. They’re what’s called a periostitis, right? They’re inflammation of the lining on the bone. So it’s where the muscle attaches into the bone and the muscle is pulling on that bone and it creates inflammation of that lining. Our bones themselves don’t have any pain fibers, but the lining, the periosteum does. So it too is an inflammatory process that’s gone on. Muscle imbalances contribute. So you really have to work on balancing the anterior and posterior muscle chains. But that’s where when I look at those people, they’re in inflamed states sometimes there is an overtraining phenomenon to that, right? Overtraining will create more inflammation.

But that’s where BPC, thymus and beta 4, you can actually even inject like how people subcutaneously, just take a little bit and inject it right close to the shin splints. Super beneficial to help that process. Also, one of the problems with why those are slow to heal is because there’s not great blood flow to that area. So once they get irritated, it’s really hard to recover. That’s why you just have to rest them well, it’s because there’s just not blood flow. This is true with tendons too, when people get like tennis elbow and it won’t heal. So one of the things I like to do is get blood flow to the area. How do we do that? I actually have get a little give my patients a little prescription for Nitro-Bid. So it’s nitroglycerin you can get as a paste, basically a topical and you can have them tap it over that area. It gets this massive amount of blood flow to the area and really helps with healing.

And then I love red light therapy on that too. So using some red light can be really helpful in those cases too. But again, going back to looking at inflammatory processes, so are they eating enough protein? Is their diet good? Have they taken out? Do they have all the right nutrients to heal? Again, throwing that FORTIGEL collagen on those people too. And vitamin C, really helpful, but it’s a combination usually of increased oxidative stress. So it’s where the rest piece—there is sometimes an overtraining phenomena there.

Katie: Got it. And as expected, I’ve learned a ton from you in this episode already. And I’m guessing a lot of people have as well and might be wondering, can they work with you? Since you’re one of these rare gems of doctors who actually listens to their patients and has done all this extensive research. How can people work with you or learn from you online?
Dr. Yurth: They can go to boulderlongevity.com and fill out a little information sheet there and somebody from our office will contact you. There’s also a lot that’ll gear you right into if you want to see Zach, who is my orthopedic specialist, and I have Emily who does a lot of work with me as well, so they can see one of us. And then I really encourage everybody to go to BLI Academy and join the Human Optimization Academy because there’s a whole course on orthopedics. There’s a whole course on what to fix first, what are my steps to take for longevity, what do I absolutely need to do.

There’s a whole course on peptides, the whole course on gut health, whole course on hormones. So basically they can do these. And again, I’ve kept myself out of the sort of world of nobody pays me to say anything or do anything. I’m trying to teach you guys just from literature. So what I do is review massive amounts of literature. I try and keep up with it and I try and sort of digest it down so you guys can learn from that, that same thing, which is really how doctors should be learning. So that’s how you guys are going to have to learn. The doctors aren’t learning that way. So if you go to BLI Academy, we also do these monthly Q&A’s that are amazing. This group never ceases to amaze me. There’s actually doctors who are in the group too, so I won’t say all doctors don’t learn this stuff. There are doctors who have joined the academy. And so we have these monthly Q&A’s. The questions people ask are incredible. You would love it because you’re like, people come up with this stuff like, oh my God, where do they even come up with this? And so it always keeps me on my toes too, in terms of learning because it’s just brilliant people out there.

So you can learn from each other in this group, which is really nice. I learn from everybody all the time. So I think one of my fortunate things is that I belong to this kind of mastermind group of physicians who all are working together to keep on top of the trend. So there’s about 25 of us who are just kind of bound together and say, okay, this is a really cool thing. How do we get access to it? Where can we get it? Who can we get to make it for us? So we can bridge that gap between something that just sort of looks cool and actually getting it to people. So you have to get the right network. And I’ll say the same thing with you guys. Join a network of people who are like minded, who you can learn with. I’m sure that’s why people listen to your podcast, right? It’s finding a network of people who all are like-minded.

Katie: I love it, and I’ll make sure those are linked in the show notes for you guys listening on the go. That’ll be at wellnessmama.fm. And lastly, a question I love to ask from a personal level is if there’s a book or number of books that have profoundly impacted your life personally, and if so, what they are and why?

Dr. Yurth: The book I always go back and reread is the book Tuesdays with Morrie. And I’m sure a lot of guys have read it. It’s basically the guy who wrote it, Mitch Albom, one of his professors from college was dying, Morrie Schwartz. As he was dying, he said to Mitch, he said, Come study with me and my—something like this—come study with me in my slow demise so you can learn what I’m learning. And he really follows him. He goes every Tuesday and he talks to him as this guy’s dying, basically. And a lot of those things that we all know, right? Live each day like its your last. All those things that we know but don’t practice. But there’s also these just incredibly insightful pieces that you can only get from somebody who is facing their end. And then even as you’re watching sort of the brain change and sort of things that our awareness is changing to different things, how those are interpreted.
So I kind of love that book. I mean, he says in the book, everybody knows we’re going to die, but nobody really believes it, which is true, actually. I’m hoping we can stay alive forever, but it really is that piece of we need to kind of keep that in the back of our head without it being forefront. And so I re-read that book a lot because it just feels like to me, and it’s probably my biggest failures, is I get so caught up in this. I do forget kind of the day to day living and you’ve got six kids. I feel like a lot of times I miss out on things because I’m so busy trying to stay up on this other stuff. How do you create that balance? And it sort of ends with just be compassionate with each other, which I think is something that we’ve seen less and less of in the world. It’s this kind of compassion with each other. Everybody’s got too many opinions, and so it’s being compassionate to everybody has their opinions. Like I said, I will not argue with the carnivore diet or the vegan diet guy. I don’t know. I don’t know that anybody knows the answer to that. I’m not going to argue it. I’m not going to spend my time and energy doing that. I’m going to say, listen, if that that’s what you feel best, and then do it. So I think that that is really a book everybody should go back and re-read. If you haven’t read it.

Katie: Well, I love that. I think that’s a perfect place to wrap up. And I know I’ve learned a lot in this conversation. I’m so grateful for your time and thank you so much for being here.

Dr. Yurth: Thank you so much for having me and keep on this battle.

Katie: And thanks, as always, to all of you for listening and sharing your most valuable resources, your time, your energy and your 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.