



Episode 458: Dr. Marcella Madera on
Neurosurgery, Stem Cells, TBIs and Anti-Aging

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Katie: Hello, and welcome to the "Wellness Mama" podcast. I'm Katie from wellnessmama.com and wellnesse.com. That's Wellnesse with an E on the end. It's my new personal care line. This episode goes deep on some really cool science. It's about neurosurgery, specifically in spinal health, but we delve into also brain health, anti-aging, and so much more. I am here with Dr. Marcella Madera, whose bio is so impressive, I actually have to read parts of this. She's an expert in surgical treatment of conditions of the spine, including degenerative spine disease, spine tumors, and degenerative deformity. She is world-renowned for this, and she has expertise in all spinal approaches and minimally invasive surgery. She is board certified by the American Board of Neurological Surgery. But what's really cool is she's combining the cutting edge of surgical treatment with the cutting edge of alternative and even energy therapies. And she's getting really incredible results for her patients. And she talks about how this really has crossed over into other areas of life as well, besides just spinal health. It always is exciting for me to find doctors who are combining alternative therapies as well. She shares my idea that this is very much a both/and not either/or, and that there's a time and a place for both and that often the best outcomes occur when we combine them. So, we get into some fascinating and pretty specific info in this one, and I hope you'll enjoy it as much as I did. Dr. Marcella, welcome.

Dr. Marcella: Hi, thank you so much for having me.

Katie: I'm excited to get to know you a little better in this podcast. You come highly recommended by several people in my life who I highly, highly respect. And I am so excited to get to share you with everyone today. Your bio is super impressive. And I feel like, even starting with just one thing is hard to pick. But I would love to start off by hearing about how you became a neurosurgeon because that is an incredible specialty, to begin with, and not an easy one, I would guess.

Dr. Marcella: Right. Well, thank you for asking that question. It's dear to me how I became a neurosurgeon. So, I knew I was a surgeon right away in medical school, and I wasn't sure what type I would be, but I loved being in the OR, and I loved the calm and also the intensity. And I happened to do a neurosurgery rotation because you could choose between neurology and neurosurgery. I was thinking I was gonna do plastic surgery. And on my rotation, I was just absolutely blown away by the beauty of the nervous system. I had a very guttural, instinctual response to the operations and the healing that we were creating with our patients. And I just knew deep in my soul, this is what I was supposed to do. So, I jumped in.

Katie: And that was at the beginning of your career, right, like, strictly neurosurgery?

Dr. Marcella: Yeah. So I started out conventional medicine neurosurgical residency for six years in Cincinnati, and then I did a spine fellowship for one year at Johns Hopkins in Baltimore. And then, I went into private practice in Austin, Texas in 2011.

Katie: Okay. And that's where you still are. And I'll make sure I put a link. I know you guys are booked up way in advance, but I'll put a link to your practice in Austin, for anybody who is local there. And from what I've heard from my friends, you now have a thriving integrative practice, and you're addressing a lot more than just the neurosurgical side. So, how did that journey happen?

Dr. Marcella: Yeah, so over time in my conventional practice, I had the experience over and over that I really wanted to offer additional care to my patients. I really wanted to heal more than cut. And I needed a way to be able to fully express the healing that I wanted to give. And so, I started out by doing my own education on alternative treatments, on holistic medicine, functional medicine, integrative medicine. And over time, I also worked myself, personally, with the Energy For Success, which is an ancient Chinese energy modality brought to the United States from Dr. Barry Morguelan. And doing my own energy work through those programs, plus educating myself on all the other things out there, made me really want to create a completely different model of brain and spine care. And so then I started my integrative practice called Austin Integrative Spine as a side project for a few years, and then now it's my main project. And what's been really, really rewarding is that now when I take care of patients, some patients still need surgery, but there's a large population that when they optimize, and we treat people holistically, they don't need surgery at all. And I always knew that instinctually and I had to create it and develop it to prove it in real life. But it's been really rewarding to do

smaller surgeries, sometimes do no surgery at all, and then also use cutting-edge technology and biologic cell medicine, which is another piece of our practice. It's been really, really wonderful.

Katie: I'm curious if you're seeing... Well, first of all, I love that you're not turning to surgery as the first option because it seems like in a lot of medicine, that is very much a first approach, and it seems like a pretty drastic one. But I'm curious, are we seeing a rise in spinal-related problems in some of the problems that you work with like we are in other areas of medicine in the same way? And if so, what do you think is driving that?

Dr. Marcella: That's a great question. You know, in terms of a rise, I would say, consistently, my conventional practice... I've been out of it now for almost two years. But at the time, I would say that I wouldn't necessarily perceive a rise. What I perceive is a constant chronicity of disease. So, there is a baseline amount of degenerative spine disease, especially, and also degenerative neurologic disease, but degenerative spine disease is almost ubiquitous in the population. Everybody's got a back pain or a neck pain or whatever. And certainly, with COVID, what we saw was, you know, frankly, they shut the ORs down. So we had a drastic decrease in the amount of patients that were able to be treated. We can only treat emergent patients. And so now, with things opening up, we are seeing an increase in people being able to be treated. I would say that the chronic disease, though, in general, is steadily rising in terms of incidence just because of the aging population. And as you age, everybody gets chronic disease. That said, I feel like there are a lot of other contributors. It's not just wear and tear. And that's part of my practice now is really getting to the root cause of that and preventing that. And so, do I think there's a rise? Yes, with an aging population, but it's so ubiquitous. It's always been ubiquitous.

Katie: Gotcha. Okay. I'm curious what you're seeing patients come to you for the most right now and/or, like, kind of, within the area of neurosurgery? Like, what was your specialty and, like, kind of, what were you seeing in that area when you were practicing as a surgeon?

Dr. Marcella: Yeah. So, the main things that I treated then and still the same things I treat now, just I have a whole new additional bag of tricks in addition to surgery, but chronic or acute, so long time or urgent short time, back pain, neck pain, arm pain, leg pain, from arthritic disease in the neck or in the low back. That's probably the top, you know, 80% of stuff that we see. And in the surgical world, you know, there's a lot of things you can do before getting to surgery. And so, in my conventional practice, a lot of times, people would have seen pain management and, you know, done all the things, seen physical therapists, chiropractors, and none of that worked. And so then they would come, and we would do surgery. And now, it's the same population, but now we have new tools. And so, some of the things we look at are underlying inflammation. We have a laboratory panel to look at inflammation. A lot of patients come without knowledge that your diet can really radically affect your pain syndrome. And so, easy stuff like going on a low inflammation diet and doing a specific exercise that has mind-body incorporated with it, breathwork, some very simple supplements, like vitamin D and Omega 3 fatty acids, you know, those key things at the beginning, can often lead to no surgery or lead to an optimization period and then a better recovery after surgery.

Katie: That's fascinating. Yeah. And it makes complete sense that even in the case when surgery is necessary, it's not an either/or it's a both/and. And I know I've seen that in interviews, like in the cancer world, for instance, these cutting edge cancer doctors who are also using integrative modalities, or encouraging patients to fast, or using things, or energy work, things that have been researched in other areas, and realizing they don't have to be at odds. And I get so excited about that because I think long-term, the best outcomes in medicine, are gonna be when we can meld all of those tools together. So it makes me really excited when I meet people like you who are on the cutting edge of the medical world and also realizing the value in things like nutrition, and lifestyle factors, and the energy work as well. I'm especially curious about the, like, kind of, energy and mindset and emotional component when it comes to specifically the realm of pain because it seems like for a lot of people, at least anecdotally that I've heard from, they will see, like you said, a shift in their pain response when they address inner stuff as well and...

Dr. Marcella: Hundred percent.

Katie:my story is not specific to pain. But I had a lot of health problems for a lot of years, including thyroid disease and trouble losing weight. And it wasn't until I addressed the emotional component that I was able to resolve any of those things. So, I'm so excited to hear you say that you're integrating all these things. And I'm curious if you see that connection really strongly in the pain world as well.

Dr. Marcella: Definitely. One of the really fascinating things that we have come across recently is this idea of what's called biologic decoding. There is a body of work that has the name New Medicine or Germanic Medicine. It's a bit esoteric, but I've learned about it recently. And the idea is that all medical disease or all disease processes possibly are related to negative experiences that we have experienced as humans. And every single human has had a stressful experience in our lives. That's what being human is about. And so, using this very specific decoding training that I've worked on, adding that to a mind bodywork with the Energy For Success, which is breathing practices, writing goals, journaling, there's some very specific practices that we have our patients do. We have them do these practices leading up to procedures, and then during one of our biologic cell medicine procedures, we actually talk through some of these life stresses, and we go back to the first point of symptoms, and then sometimes we go back further, and sometimes we go way, way back. And what's fascinating is doing all of this in combination, allows the body to release pain and release disease. And if you told me 10 years ago that I would be talking to people about their previous experiences and helping them heal, I never would have believed it. But I've experienced it myself. I've experienced it with my team. You know, it's powerful how you can relate what's happened to you in your past and your current disease state. And so that's what we're really, really passionate about right now and further developing this. And, again, it's a both/and. I mean, there is a place 100% for conventional medicine. And when pain is severe... You know, yesterday I told a patient, "Let's get you a muscle relaxer because you can't, like, function right now. Let's get you calmed down so that then you can, you know, come and do your holistic experience with us." So, you know, it's both/and, as you said, and the contribution of the mind-body piece and connecting to your own true self to allow that own true self to release the disease is something I'm really, really passionate about right now.

Katie: Yeah. And I mean, I have so much empathy for people who are going through that, especially back pain. I've experienced that myself twice, once from an injury while working out and then more recently, from accidentally giving myself rhabdo, which was kidney pain, but still, like, back pain, is especially encompassing and intense. And like you said, it's very hard to function. So, totally, my heart goes out to people who are there. And it makes sense when you talk about it in that realm, too, just how much that emotional component would come into play. And from a physical perspective, my brain thinks like, "It would make sense if you're in the state of stress and emotional stress if you're not able to downshift into parasympathetic, you're not gonna be able to release that pain response because your body is in that activated fight or flight sympathetic system." Is that, kind of, what you think is related, or are there more beyond that?

Dr. Marcella: I think that's definitely related. And that fight or flight response is our body's natural, you know, cavewoman instinct. That's what we were built to do. So it totally makes sense. And what your body's trying to do in that moment is survive in that moment. So, of course, that's what our bodies do. But for the long-term, that high cortisol state, that high, you know, heartbeat state is not going to give you long-term health. It's going to increase inflammation. And if you maintain that state, it's going to continue to perpetuate the disease process. So, getting the body calm and getting that parasympathetic state activated is certainly important. And the energy work that we recommend to our patients, part of that are very extensive 20 minutes, twice a day breathing exercises. They're easy, but, you know, you have to do it. You have to listen and breathe. And that does activate the sympathetic or the parasympathetic nervous system to get your body in that space to where you can actually get into healing for sure.

Katie: And I'm curious how you're seeing this play out in patient results as well, both from, like, the surgical side you were doing at the beginning, and now integrating both, what kind of difference in results are you seeing?

Dr. Marcella: Great question. So, the contrast is, in conventional medicine, and every surgeon knows that you can have a perfect surgery. I mean, perfect. You do everything right. It's beautiful. It's the right amount of time, no problem. And sometimes, they just don't get better. And that thing happened with me and my patients enough times that I was like, "There is something else. There is something else." And it turns out there's a lot of something elses. It might be diet. It might be a major trauma in their past. It might be their personal relationships, currently. It might be their amount of stress at their job. There's so many things that can contribute to this inability to heal. And so, now, what we are finding is that, especially, like, for severe disease that has a pathway of some improvement, but not always all the way, what I'm passionate about is spinal cord injury. And a lot of spinal cord patients, you know, have a terrible problem. They get a surgery to stabilize, and then they gradually get better over time. Some get better, some get better a little bit, some get better a lot. Why is that? Nobody really knows. Do they kind of taper out at two years but, like, never perfect? That's a terrible disease. And what we're seeing now with the holistic treatment, with the advanced biologic cell medicine treatment, plus the decoding, plus the energy, I had a guy today text me, "Hey, Dr. M, every morning when I do my stretches, I get up, and I twirl one way or another. And today, I can twirl better than I ever have." And he's, like, three weeks out from this procedure, one of these advanced things that we're doing. And I mean, I gotta tell you, like, getting a spinal cord injury guy to twirl, like, it's just unbelievable. So that's the kind of thing that now I never thought that I would see. And I truly believe it's a combination of the

things that we're doing. And it's been a stepwise progression. You know, a year ago, we weren't doing the decoding like we're doing now. A year ago, we were doing a type of biologic cell treatment for spinal cord injury, and now we're doing a more advanced one with a photobiomodulation component, a light therapy component. So, we've progressed in what we're adding, and we're seeing progressive results, and it's really fun and wonderful for the patients.

Katie: Can you explain a little more in-depth what the biologic cell medicine treatments are? Like, how does that work, and what's happening?

Dr. Marcella: Yeah. So, you know, every human has an innate ability to heal. You know when you cut your finger, your body knows how to heal it. So, what we're doing with the biologic cell medicine is harnessing your own body's innate ability to heal. And sometimes, we'll use platelet-rich plasma, which comes from your own body. Sometimes we'll use your own bone marrow. Sometimes we'll use a biologic. Sometimes we use a combination. Again, I said, we have a photobiomodulation light therapy that we've added to this now. And so what we're doing, if you have an injury and your body tries to heal, injury body tries to heal, at some point, when you have disease, your body's not keeping up. So what we do is add the biologic cell medicine, either through an IV procedure, a very simple procedure, or through injections or both, to allow the body that kickstart to get them back up. And what most of this stuff is in this bucket of things that we do are very strong, anti-inflammatory signaling molecule procedures. So, the stuff that we're using basic science shows that they're increasing cell signaling for your own cells to wake up and heal. Every single pericyte, I'm sorry, every single blood vessel in your body has what's called pericytes, which are little stem cells in your body whose job it is to signal the healing process. And so what we're doing is trying to jumpstart that. That is the theory.

Katie: That's fascinating. And you mentioned kind of, like, a two-year window. I'm curious if that's, kind of, a threshold that's pretty well established or if there's hope for people who have had longer-term injuries with things like this.

Dr. Marcella: Great. Thank you for asking that question. Absolutely, that is not a threshold. And I didn't know that before I started doing these spinal cord treatments. We have patients... I have a lady just recently who said, "Oh, my gosh, Dr. M, I can feel the carpet under my feet, and I haven't felt that in 10 years." I mean, people that have chronic spinal cord injury from, you know, very long time can still get improvement. You know, this is very early these treatments that we're doing and what we're learning, but definitely, anybody who has shown some improvement since their injury is a candidate, and I would say most people have shown some improvement in something from the time of their injury. And I would say, even if they haven't shown any improvement from the time of their injury, it's always worth a try because, again, it's not just about the cells. It's about the mind-body. It's about the underlying inflammation. And so, we're not just doing one thing. We're doing a variety of things that can bring health holistically.

Katie: That is so encouraging. On a personal level, my mom broke her neck when she was in high school.

Dr. Marcella: Oh, wow. Oh, my Godness.

Katie: And thankfully,...like, isn't paralyzed from it but still has had residual pain and, like, lack of motion. And so she's had issues her whole life. And then a local friend, about 10 years ago, dove off of a boat and broke his back and now is, like, paralyzed from the waist down. So it's really encouraging that we're still seeing...because it seems like my limited understanding that for a while it was thought, like, these are relatively impossible things to recover from, especially after that initial window and, like, if you missed the window, there's not gonna be much hope for you going forward. So for, like, these personal cases in my life, it's exciting to hear there's new modalities that are showing results.

Dr. Marcella: Yeah, I mean, it's early and, you know, we're really excited about the cases that we're seeing this in for sure. So, there's definitely... You know, the future of medicine, this will be standard. That's really what I think. And right now, we're just in a process of figuring out what that standard is going to be.

Katie: And you also mentioned that you think a lot of the rise in spinal diseases is also related to an aging population, which makes complete sense. And, you know, it's no secret that we're seeing a rise in chronic and degenerative diseases across a lot of different areas, which I think also is important to bring to the forefront the conversation on aging, not just what we think of as aging, like, on a skin level on how we look but more importantly, on a biological level. And so I'm curious what you're finding in your research in your clinical practice on things that are actually, like, biologically helping the body not to age as quickly.

Dr. Marcella: Great question. So yeah, one of the things that we're really interested in is testing your age, based on DNA methylation. There's a very wide body of research that you can... There's specific tests. There's a couple of different companies that do this, where they can look at your DNA and how much methylation there is and give you your age based on your DNA. And there are some groups that are showing that with anti-aging, biologic cell treatments, that you can get a reduction in that number. This is very, very early. We've looked at a couple of patients, and we just have our baseline numbers. We don't have our follow-up numbers yet. So we are looking at this. You know, there are some really great advances with both energy work in combination with functional medicine and all of the things that you do to optimize your body, the biohacking, you know, community. There are lots of ways to think about reversing aging. I would say the science is not quite there in terms of, like, proving it. But I can tell you that people that do all this stuff definitely look younger and definitely act younger. And I do think that, you know, 50 years from now, we're gonna have the answers to those questions for sure.

Katie: It's exciting to think about. And I'm glad that we're seeing some of these things because I also think in today's world, I've talked about this in other realms, but we have so many more inputs that our bodies are dealing with. So that's I think part of the reason we're seeing this rapid acceleration in all these chronic diseases is we're just facing a lot more environmental, and food, and emotional inputs than previous

generations have. And so, you know, I often get the pushback from people of, like, well, we shouldn't have to do all these crazy things and biohacking to be healthy. And, like, I agree with you, I wish we didn't have to, but we have so many more inputs coming into play. Now that it's at least something to be proactive about, even if you're not gonna do all the extreme biohacking things, but just to be very proactive in the approach to that.

Dr. Marcella: For sure. And, you know, some of the things are really simple, right? Like, yes, it's cool to have, you know, light glasses that give you the optimal amount of light. And it's really cool to have, you know, hyperbaric oxygen at your home if you can afford that. I mean, that's great. But, like, there's a whole lot of simple things that people aren't doing because of all these inputs, right? There's so many inputs. Our society is so fast-paced. We have our phones all the time. We're always doing, you know, social, blah, blah, blah, and, like, going and taking a walk barefoot in the trees and taking a vacation, sleep, you know, like, there are so many simple things that will keep you young, that sometimes I feel like, okay, we want all the inputs, so then we have to do all this other stuff to keep up with the inputs, but maybe if we just, like, cut down on the inputs a little bit, we might get the same effect. And that's way cheaper, frankly. And so that's why I'm really, really passionate about the mind-body piece and the Energy For Success work is that it's a daily practice. You do it yourself at home, or you can do it anywhere. It's great to do it out in nature, but they're simple practices. And it is every day. You do have to pay attention to it every day. But that work alone has taken years off me personally, I believe. So everybody tells me I'm looking like I'm getting younger. So that's good.

Katie: Well, yeah. I think that's an important point as well as that it's tempting to want to go find the silver bullet that's all these fancy treatments, but like you personally, I've seen the biggest results from things like optimizing sleep, and sunlight, and hydration, things that you're gonna need to do anyway. And if you can just improve those, it has a carryover effect. And if you aren't focused on those, you can spend a lot of money on all these other things, and they're not gonna be as effective anyway. So I've become a very big fan of things, simple things like morning sunlight, and getting enough sleep, and fasting in different forms at different times. I think there's just these free tools that we can use. And I'm excited, like I said, to see the integration of all of these things together.

Dr. Marcella: Definitely.

Katie: Also, anytime we're talking about neuroscience and neurosurgery, there's obviously, I would guess, a big brain component here as well. And I think this is a topic that's really exciting to delve into for everyone, especially there's a lot of parents listening, and I talk a lot about education as well as a homeschooling parent and working on building out an educational system. And so I'm curious if you have any advice from the neurosurgical side of how we can best support our brains, both as adults, as we're aging, and also in our kids, to give them the most solid foundation early on?

Dr. Marcella: That's a great question. You know, the foundation for the things that we just talked about. So, sleep is probably number 1, 2, 3, and 4. I think for the aging brain, certainly, mitigating inflammation is a huge thing. All of the neurodegenerative diseases have pathophysiology related to inflammation. And if you know that that runs in your family or even being proactive, as you said, you know, getting your genetics looked at and see if you're at risk for neurodegenerative disease is important. Diet, I feel like, is a huge piece of that. And, you know, a simple low inflammatory diet most of the time, I think, is an easy thing that anybody can do. It doesn't mean you can't ever eat your favorite things. It just means that most of the time, your baseline is low inflammation. Most of the time, you're sleeping adequately. Most of the time, you're not drinking alcohol. I feel like those are easy things that anybody can do. And exercise is a huge piece of that. So, you know, high-intensity interval training a couple of times a week is wonderful. You know, there are lots of different recommendations in terms of exercise, but I mean, frankly, just move. You know, like, that's an easy one that anybody can do.

And then being outside in nature, for sure, that we talked about already. And then, in terms of children, I really feel... So I'm a mom of two. I have a six-year-old and a two-year-old, both girls, and I really feel like kids need space, free play space. And I see in my own kids when they are over-traveled, over-scheduled, over-structured, that their brains don't work as well and, over-devised as well. And, you know, I have the same challenge as anybody else does as a working parent or stay-at-home parent that, you know, kids wanna be entertained all the time. And so, keeping their brains free and having that open playtime is, like, high, high priority, and obviously sleep, you know, making sure that they have a schedule that supports sleep for sure.

Katie: I'm so excited to have a neurosurgeon on the record saying that it's important for children to play because I have been saying this for years. And that was actually the impetus for building my whole educational system from the ground up was realizing when my oldest hit school age that I was looking at, like, what's gonna best prepare him for adult life? And is it a traditional school? Is it homeschooling? And I realized there wasn't any approach that I felt, like, really embraced all the things kids need to develop, the really important things like creativity and critical thinking, and imagination. And I think a huge component of that is play and unstructured time and the space to be bored. Like, all these things that get taken away in our over-structured life. And I think those things are important for adults too. We often forget that we're supposed to play as adults and do fun things and the movement component. So I love that you brought that up. That's so important.

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Also, I'm guessing you see patients with, like, their post-concussive issues or TBIs, and it seems like there's been media around it. These are on the rise, especially kids, because of the way sports are changing but certainly in adults as well. And I've had friends that have gone through some pretty severe concussions and recoveries, including a dear friend who's a couple of years out now and still just now recovering her taste and smell a little bit. So, what are some of the ways that you guys are addressing traumatic brain injuries and concussions?

Dr. Marcella: Yeah. So, you know, hyperbaric oxygen has a really great body of, I would say, anecdotal experience and anecdotal literature. And then there are active studies being done now for severe TBI with hyperbaric oxygen. And anybody in the functional medicine world who knows hyperbaric, 100% that's the number one treatment is at least 40 sessions plus. I think that's an easy thing. You know, it's pretty accessible now in most places. And we partner with a great center here in Austin, Texas, that we work with. So that's a big one. I think the same things I said before with optimizing inflammation, so low inflammation diet, sleep. I also think brain neurofeedback and brain training. We have some partners that we work with for our concussion patients for that, and I would say, you know, the biologic cell medicine piece. I do think that that is the future. We have looked at that. We have a couple of, I would say, anecdotal situations where we found that helpful. It's still very early, and we don't know for sure if that's gonna work in everybody. But the way that we work it is if we see somebody with this situation, we recommend the things that we know for sure that have more background behind, which would be the hyperbaric and then just optimizing inflammation, sleep, those are things that, you know, anybody can do, like, we've talked about. And then if they've gone through that and are not getting where they wanna go, we'll have a discussion to consider biologic cell medicine and say, you know, "This is an option. We don't know for sure, but it's possible that this can improve the neurologic situation." And so, you know, sometimes we do that with patients as well.

Katie: Gotcha. And much less serious or acute, but most people in my audience are moms. I hear from a lot of moms who have either brain fog or fatigue or just, like, that seems to be a very common thing that's talked about amongst moms. So, you're also a mom and a busy mom. So I'm curious if you have anything either personally or professionally that you do to help in that area? Maybe what your thoughts are on things like nootropics?

Dr. Marcella: Yeah. So, great question. So one of the key things that I started doing a few years ago, just for my own energy level and tinkering with different diets, I am a big proponent of Dave Asprey and Bulletproof and the butter coffee. Like, for my body, it works really well. And so in terms of, in the morning, my routine, that kind of gets me, have my powerhouse, you know, morning, every morning, I spend some time with my two-year-old before I go to work after the six-year-old goes to school. And now the summer, it's both of them. And so, I do intermittent fasting from, like, dinner until... I mean, it's kind of a fast, because then, you know, it's like a bulletproof fast. You'd have your butter coffee in the morning. So in terms of nootropic, in terms of, you know, caffeine and butter, I think that's what works for me. I really enjoy that.

I don't really... There are some great supplements out there. I just really tend to do the energy work instead of supplements. And if I feel like I'm having a drag in the afternoon, I'll lay down for 15 minutes. I, specifically in my new office, got a chaise for my office so that I can lay down for 15 minutes if I need to and do a guided visualization, do a breathing, that always perks me right up. And then the other thing that came to me when you asked the question is, you know, being a mom and working or whether you're working or not, you're always, whether you're working outside the home or in the home, being a mom and doing all the things that moms do because we know we do more than whatever it is somebody thinks we're doing. We're doing, like, 100 things more. That's a given. So, it takes a daily attention, and it takes a daily practice. And that's what I learned about really when I went back to work after having my first kid. If I let up, if I don't pay attention to myself expansion or myself being full, I can't do it, you know, I'll be tired, or I'll have a bad attitude, or I'll, you know, say something grouchy to my kid. And so, being a mom and plus all the thousand things that you do every day, whether it's working at home or outside the home, requires daily attention to yourself. And I do mean daily. So for me, that's, again, the energy work that I do and doing, you know, breathing every day and specific physical practices every day. I write goals every day for what I want to happen that day in certain eight areas of life. So, yeah, it's every day. You don't get off the hook.

Katie: Also, a new topic I'm guessing you might have some perspective on, I keep seeing exosomes come up in the research. I'm curious if you've delved into them at all and if you can explain, like, what they are and how they're, kind of, being evaluated right now.

Dr. Marcella: Yeah. So exosomes are little nanoparticles that are cell membrane on the outside, and on the inside are growth factors and RNA. They do not have DNA, and they're not cells. Different companies derive them from different sources. Some come from young adult bone marrow, stem cells, for example. Other companies use placental stem cells. They are completely non-FDA approved right now. A lot of the companies were marketing them as a biologic. Now, the FDA is saying they need to be on a pathway to become a drug. And so, any of the companies that are going to stay around have to have an IND with the FDA to be able to even sell their product anymore. So, it's a very...some people would say controversial. I would say it's just very, very new science. We do not have long-term studies to know what these things are doing. We kind of barely know what's inside of them, but the companies that are doing the most aggressive, stringent applications with the FDA are trying to characterize and standardize what's in them. So, I would just say they have a huge amount of promise. The companies that I know that are doing these IND applications are doing them for COVID. And I do know of some anecdotal reports of treating both acute and chronic COVID. And these have been published in peer-reviewed journals. So, there is some early science. I think it's incredibly

promising. For treating diseases that are outside of the realm of what their INDs are for, I would say, we have no idea. But we'll know in a couple of years, I think.

Katie: That's exciting, too. Let's see. So you're doing a wide range of therapies with a wide range of patients. I'm curious, what is the most unusual thing or surprising thing that you do in your practice?

Dr. Marcella: I think... Well, this is... So, when we got this new technology, which is this photobiomodulated PRP thing, we saw these really great results with a variety of things, like knee pain, or hip pain, or back pain or whatever. And we also saw someone else that was doing this had some great cosmetic results. And I was like, "Well, I'll just try that because that sounds great." And so I had my dermatologist friend do micro-needling for me, and then we did this procedure, and my result was great, and I was super thrilled with it. And other people that I had not talked to saw me on a Zoom were like, "You look great. You guys gotta do this." So, we developed what's called the Aphrodite makeover, which is this same process we do for women. We do face, breasts, and sexual enhancement. And then for guys, we do face, hair, and sexual enhancement.

And so if you had told me 10 years ago that I would be doing cosmetic sexual optimization for people, I would be like, "What? This doesn't even make sense?" But now, it totally makes sense because it's a natural progression of if we're gonna fix somebody and help their acute problem and help their pain and get them back to a life that's better than they can imagine, which is my goal for every patient, why wouldn't I then say, "Let's now work on your beauty and sexual health?" Why not? Like, if we have the power to do that, we have the tools to do it. And it's so much fun, and it's so rewarding. And so, our dream is putting these two makeovers together with the female, the Aphrodite, the male, the Eros, patients come together as a couple and do this treatment, and with the treatment, we do the energy work. We do the decoding, and they make goals about their treatment and how they wanna connect. So it's a really fun part of my practice that is completely unexpected, and we're just having a great time doing it.

Katie: Well, and you've mentioned the energetic science several times and the Energy For Success, especially. So I wanna make sure we touch on this a little bit more. And is this something that you offer specifically through your practice? Are there resources available for people to learn about this? Because you mentioned, it's been personally very helpful for you, as well. So I wanna make sure I provide resources for people to find out more.

Dr. Marcella: Yeah. Thank you for asking. So Dr. Barry Morguelan's program is called the Energy For Success. And you can just go to energyforsuccess.org, and there's a variety of ways to connect. There are various programs that you can do, but the core thing that we do in our practice is there's a guided visualization that we have been given permission to give to our patients and some specific practices that we give to our patients to optimize their healing, before and after a procedure or sometimes with no procedure and they just do it, you know, while they're under our care. So you don't have to be a patient for sure to access this. Anybody can access it.

And what's been really wonderful to see from the medical side is, you know, patients come in, and they have a problem, and they're sitting in my office, and they're asking, "Doctor, what do I do? Tell me what to do." And it's almost like they're at the end of the fishing hook. Like, you know, the information gap is so wide, you know, people come in and have no idea what their images mean and have no idea what their pain means. And they've gotten four other opinions, and none of them makes sense. And it's really hard, and it's confusing, and it's scary. And when you're in pain, this whole process is just really scary and, you know, confusing. So, what this work does is gives you, the patient, a way to participate in your care from day one. And it's something that you have to take on yourself, and you do it, but you are contributing to the healing of your body. So you're not just on the receiving end of your healing, you are contributing to the healing. And, you know, again, it's simple stuff is what we tell patients to do is a guided visualization twice a day. There's a goal writing practice. So I write goals for my own patients, meaning I want this procedure to turn out perfectly. I want it to take this amount of time. I want them to have complete resolution of X, Y, and Z, and I write those goals every single day for my patients. And when our patients come in for procedures, we coach them on writing their goals for themselves.

So we're both harnessing this energy work to get the best outcome. And then for people that are not necessarily in pain or having, you know, a health problem, how this energy works is allowing you to access... I mean, for everybody, it works this way. We don't have to have pain to have it work. It's allowing you to access a flow state all the time. So, everybody knows what it's like to hit a perfect golf ball or to make the perfect plate of food or to have the perfect conversation where you're not even sure if it was you doing it, it just flowed, and it was wonderful. That's what the energy work allows you to connect to in multiple areas of life. And so, anybody who's interested, just go on the website and read more about it. And the programs are really, really life-changing. And I started doing it for myself seven years ago, to help manage being a neurosurgeon and being a mom, and, you know, wanting it all, frankly. And it was so powerful for me that I wanted to share it with my patients. So that's what I do now.

Katie: And I think a really important thing you just brought up is that idea of having them be an active participant in their care, which is also such an important mindset shift. And, like, I've read a lot of books like "The Biology of Belief," and things like that, like how that mindset shift is so critically important. But I've also said on here so many times that each of us is our own primary healthcare provider and the best outcomes happen when we accept the ownership and responsibility of that and then find, like, cutting-edge practitioners like you who can help guide where to go. But that, like, the best partnership, I think, is with people like you because so often I hear from people who are being told by their doctors, like, "Oh, your symptoms aren't real. This is all in your head," or "Just do it this way," and like not being listened to. And so I think that is a really cool component of getting people to really center in and take an active role and work with you, which of course, makes total sense. You would have such good outcomes from that.

Dr. Marcella: Yeah. And it's been really fascinating. When people are given space and time to just express, healing happens. I mean, that's part of this decoding process that we do with one of our procedures. People tell me all the time, "I just told you something that I've never told anybody." And I'm a neurosurgeon, like, it's

fascinating that because I'm approaching it in this way, it's coming out in the safe environment. People really will be able to heal themselves. I mean, they're doing it. They're telling me the stuff and them coming out and telling me this stuff is contributing to their healing. It's really cool.

Katie: I love that. Well, as we get close to the end of our time, there's a few questions I love to ask. The first being just both as a mom and a practitioner, and with all this cutting edge stuff that you're doing, what do you consider the biggest, most important needle movers in your daily routine in your daily life?

Dr. Marcella: I mean, I will go back to the energy. It's the same answer. I keep saying it. But paying attention. It doesn't have to be that right. It could be any daily routine. I think what you said is key. It's daily and paying attention to your own, I wanna say energy level but paying attention to where you are, like, checking in. You can go a whole day and not even be remotely connected to your body. So just pausing and taking a moment, where am I? How do I feel? What do I need right now? Whatever that practice is, you have to do it every day.

Katie: And then lastly, if there's a book or a number of books that have had a profound impact on your life, and if so, what they are and why?

Dr. Marcella: So, this is a hard question because there's so many great books. When I was younger, I think the one that stands out the most is probably "The Sound and the Fury," which is Faulkner. And I think it stood out because my brain really stretched with reading that and interpreting that, and working through it with my teachers. And I really gained this idea of, "Wow, like, I'm really smart. I can totally do this. This is amazing." So I just remember that being a powerful... I mean, the story is wonderful, and the prose is amazing. And it's written in this very different way, things that I've never experienced before. And that experience of reading something that was new and I never experienced before and then being able to do it, that's the flow state. That's, like, doing something that's new and then experiencing prowess within it. That's what we have access to all the time. And I experienced that as a kid reading that book. And with the energy work, I do now, that's my goal now to experience that all the time. And then, as an adult, there's another book that was really powerful for me called "Power vs. Force," and it's David Hawkins. And it's about the universal consciousness and how the answer to every question exists and how to access that, and it's really profound quantum information. It's cool.

Katie: I love it. I'll put both of those in the show notes, as well as links to everything we've mentioned in this episode and a link to your practice into the Energy For Success information. I'm so excited, like I said, at the beginning, to know there are doctors like you who are on the cutting edge of combining all of these modalities, and I'm so appreciative of your time. I know how busy you are. Thank you so much for being here today.

Dr. Marcella: Thank you so much for having me. It was a thrill and pleasure to meet you.

Katie: And thanks as always to all of you guys for listening and for sharing your most valuable resources, your time, and your energy with us today. We're both so grateful that you did, and I hope that you'll 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.