

BioReset Medical: Regenerative Medicine for Nerve Pain and Neuropathic Pain

A Special Interview With Dr. Matthew Cook

By Dr. Joseph Mercola

JM: Dr. Joseph Mercola

MC: Dr. Matthew Cook

JM: Welcome, everyone. This is Dr. Mercola, helping you take control of your health. Today we're going to talk about a lot of interesting topics. We're joined by Dr. Matthew Cook, who is a former anesthesiologist and physician and has a very interesting practice in San Jose, California, where he does some regenerative medicine techniques. We're going to talk in great detail about this, because it's really a very unusual clinic that provides therapies that really isn't provided almost anywhere else. Welcome and thank you for joining us today.

MC: Thank you so much. It's totally a pleasure to be here.

JM: You're another person who I met at the Bulletproof or Upgrade Labs event. I, interestingly, had interviews with four people who I met at that event. You're one of the four. I had first heard of your work through Ben Greenfield. You've done a lot of work with him. I was impressed with some of the results that you were getting. I think it probably is best to start, because we really need to get into the details of what you're doing. But one of the work pieces that you're doing is with nicotinamide adenine dinucleotide (NAD), which is one of my favorite biomolecules. Why don't you tell us your story briefly so we can understand how you wound up where you are and practicing the type of medicine that you are now?

MC: Okay. I went to medical school and did an anesthesiology residency at University of California San Francisco (UCSF). I was in musculoskeletal medicine doing anesthesia. I was doing regional anesthesia, so I was basically doing nerve blocks all day, every day. Looking with an ultrasound, finding nerves and then putting those nerves to sleep. Then after I did that, doing sedation for surgeries, I figured out basically how to do almost every surgery, from total knee replacement to shoulder surgery, without having to do general anesthesia.

I sort of evolved into finding out that I could fix a lot of those problems either by treating nerves or treating ligaments, tendons, fascia and joints. I started the regenerative medicine practice. As part of my journey of doing that, I found that NAD was one of the most powerful tools in terms of resetting human biological systems. I started incorporating, putting it into different protocols. That's probably one thing we can start to talk about.

JM: Okay. Great. That's one of my fascinations with the work that you're doing. As I mentioned earlier, NAD is one of my favorite biomolecules. Let me provide a brief description for those who are not familiar with it. It's a – I would go as far and say a critical, certainly a vital coenzyme in your body. It's a part of a family. It's NAD⁺, NADH, which is the reduced form, and nicotinamide adenine dinucleotide phosphate (NADPH), which is the phosphorylated form, and NADP⁺. NADPH and NAD⁺ are the really two important biomolecules.

My fascination with them is pretty much from a theoretical perspective. The reason why I'm so intrigued with your work is I don't really know many clinicians who have embraced the understanding of this and applied it clinically, like you're doing on a daily basis. I really value the feedback that you're getting from this. As far as I know, you're really on the cutting edge of providing NAD therapeutically.

Virtually – Maybe you have a better handle on this, but I think there are virtually very few clinicians, only a handful in the country, who are using this outside of centers that are using it for the treatment of addictions. I didn't know this until recently, because one of my friends is one of top NAD researchers in the U.S., clinical researchers. He doesn't see patients, but he does clinical trials. He showed me a paper where this was actually used, NAD+, for treatment of addictions, a paper published in 1961, literally 60 years ago. It's been used for a long time. But from some of the metabolic interventions to choose, it's relatively recent. But it's certainly been established for addiction. It's essential for over 700 enzymatic reactions in your body, the ones that run the mitochondria.

Without NAD levels, you will die prematurely. There's no doubt in my mind. In fact, probably, in my current view, it's the primary reason why people are dropping dead after late 70s, 80s and 90s, because their NAD levels are in the dirt. That's exactly what you'd predict. If you don't have NAD, you just cannot survive. Why don't you expand on your specific clinical experience and fascination with it and what you've learned? Because this is the absolute cutting edge of clinical science, as far as in my book.

MC: Yeah. It's amazing. If you start by the experience from the addiction space – I'd like to say that everything that I do is somewhat derivative of that experience, because people have been using NAD or its precursors, for example niacin, in addiction since the '60s. Dr. William Hitt was one person who was doing it. Early on in AA, niacin was an important component of the protocol, but that ended up coming out of a protocol.

Of the 700 enzymes that NAD catalyzes, one of them is alcohol dehydrogenase. Every time an alcohol molecule is broken down, two NAD+ molecules are consumed. What has been discovered through that experience is that people who have alcohol addiction – And there's a similar experience with toxicity and a similar experience with opioids and all other substances for the most part, because they require coenzyme-assisted oxidation reduction reactions to be broken down.

Daily continuous long-term exposure to these toxins ends up leading to a very extensive depletion in the NAD levels. Our NAD levels probably drop by 90% from age 1 to age 90. We can do a lot to either prevent that or accelerate that in the case of addiction. I started my experience by treating people with addiction and had fairly profound results in terms of repleting people's total body source, by giving people a 10-day intravenous (IV) experience.

JM: Okay. I should preface it to say that at this point, there is no really commercially available test to measure NAD levels. It's just a research tool. My association with one of these researchers is I have access to this technology now. We're going to be using it. But it's only available for research. And then that there are two ways to augment NAD levels. One is the precursor. As you mentioned, niacin is one of them, which is far better than niacinamide. But more commonly, people

are using nicotinamide riboside or nicotinamide mononucleotide, otherwise known as NR and NMN, which, after studying this pretty carefully.

I'm not a big – I mean it's okay, but I don't think that's where the action is. The action is with the real molecule, because there are a lot of reasons why those precursors are not going to optimize your NAD levels. They'll help, but they won't get it to where they really need to do.

That's why I'm really intrigued with your work, because you're using the real molecule, which typically – You cannot swallow this thing. It has to be administered parenterally, which means it's either IV, subcutaneous, transdermally or submucosal through like a sublingual or even a transrectal. But why don't you expand on that? Because again, this is the leading edge, I believe, in really bringing people back to where you can restore their health. And then not only addiction. I think that's just the tip of the iceberg, which is traditionally what you would do. I think there are so many other applications. I'd like you to extend on the applications that you've found.

MC: One thing I can tell you about this is that of the myriad 700 things that it does, one thing that it can do is it can turn on certain enzyme systems. It can turn on DNA repair. It can turn on sirtuins, which are super important. That is critical to multiple enzymatic pathways within the mitochondria, where we make all of our energy.

Just as a simple example, there are mitochondria in nerves. One thing that I found is that people who have nerve pain, people who have neuropathic pain, if I give them NAD – and I've used every single one of the routes that you mentioned – nerve pain will go down. It turns out if I give NAD surrounding a stem cell therapy or any regenerative medicine therapy, the therapy seems to work better.

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I have people who have chronic illness. NAD seems to help turn the immune system on and get the immune system functioning. It helps people start to detox and get their detox pathways going. Use it in those cases. I've noticed that it improves cognitive function. It helps people recover from traumatic brain injury, from concussions. I think it's very, very profound in terms of what happens, in terms of the central and peripheral nervous system. I've spent a lot of time treating patients with a myriad of conditions, from Parkinson's and dementia to peripheral neuropathy. I've seen improvements in all of those areas.

My approach to almost all of those problems is very multi-factorial and multi-modal. NAD is one of the tools that I use. But I find it to be very helpful. I think that the key, and I think we're going to kind of get into this – Biological systems, there are messengers that turn on other components of a system that modulate that system. Our goal is to do something that turns and modulates either up or modulates down, depending on the situation that we're facing. That modulation creates harmony and equilibrium, and then that resets us. My goal is always to figure out, "Do we need to modulate up? Do we need to modulate down? And how can that reset?" And then try to figure out how NAD works within that.

JM: Yeah. I assume, ideally, it's allowing or giving the body the resources and the tools to make that decision itself. Because when we start playing god and forcing our body in one direction that

we think is better, it's been my experience that that can really result in pretty disappointing consequences frequently, because we don't know what the body needs to do, and the body does. It's just providing the environment that it could go either way that it needs to.

MC: Right. Then if you think about the central nervous system, in the brain there are all these different Brodmann areas and they all have a different job, let's say. Just imagine that there was one part of the brain that was traumatized.

Let's say that you got a concussion, so there's some brain damage there. That area of the brain can't do its job. Now what we're trying to do is put something IV or put something subcutaneously that's going to be absorbed into the bloodstream. That provides energy that's going to be absorbed through the blood vessels to that area where there was a damage. The other thing – We can either go down the blood vessel road or you can go down the synergy-with-other things road, because both of those are great conversations. I find they're both super profound in terms of how they work.

JM: Okay. That's good. I'm going to just finish up a little bit on NAD and then I want to go back to your story, which we kind of skipped over. You alluded that the longevity proteins, which are the sirtuins, use NAD as a source. That's kind of a clue. That's actually one of the reasons why resveratrol was popularized, because of its importance with NAD. I interviewed Dr. Sinclair, who is actually associated with Dr. Leny Guarente's lab in the late '90s, who actually made that discovery.

One of the other consumers of NAD that's really crucial is this PARP, or poly-ADP ribose polymerase, which sucks out really about 150 NAD molecules. I mean you mention alcohol dehydrogenase taking two out. Well this takes 150 every time you have a single- or double-stranded break. That is a lot of NAD. The reason I first learned of this is my passion in understanding how the damage from electromagnetic field (EMF) works, usually as a result of the consequence of over-activating PARP because the DNA is damaged. That's where augmenting or replenishing the NAD supply becomes so vital. I mean it's really clear for oxidative stress that it damages DNA. But there are other sources of oxidative stress. No matter what the source is, PARP will help repair it, but it needs NAD as a sirtuin protein.

Other nutrients that you can use would be molecular hydrogen and hyperbaric oxygen. To me, hyperbaric oxygen and NAD are the two really vital tools that one needs to focus on to optimize longevity, laid on the foundation of everything else we know about staying healthy. You actually use hyperbaric oxygen in your practice and use it as a tool to recover your health. Why don't you tell us your story about really the motivating catalyst to get you into this type of medical practice that I believe you restored your own health using these strategies and then started sharing it with the patients?

MC: Yes. It was super interesting because I was an anesthesiologist. I still am. One of the things that we do is we stand next to people who are breathing inhalational anesthetics, and then we take the tube off and there's a breathing tube, or an LMA (laryngeal mask airway) in. Then they just start breathing that out. For 15 years, I was breathing inhalational anesthetics every day. I ended up about eight years ago, starting to have a little bit of brain fog, where I was having a hard time

concentrating. I realized that it was that. It started me down this journey. One of the early things that I did is I became certified in hyperbaric medicine and I did 40 dives on myself. It profoundly improved my symptoms.

What happens with hyperbaric oxygen is they call it a “dive” because you increase the atmospheric pressure in the chamber that you’re in while you’re breathing 100% oxygen. Eventually, that increases oxygen partial pressure in your body. At first it’s just in your lungs, and then it goes into your blood vessels, and then eventually gets into your brain. You’re increasing the amount of oxygen tension in your brain.

One of the expressions a lot of hyperbaric people will say is, “Oxygen heals.” I definitely think that’s true. That led me on a journey to everything that I could do adjunctive. You’ll be entertained by this, Joe. For fun, about once a week, I’ll do a subcutaneous NAD. This morning, in preparation for this interview, I took some vitamins. I took some trimethylglycine, which we’ve got to talk about with respect to NAD. I took a subcutaneous NAD, and then I got in the hyperbaric chamber for 20 minutes to prepare.

JM: That’s great. What do you notice after that set of interventions?

MC: I can’t imagine feeling better than I feel right now.

JM: Okay. Great. It’s a wonderful thing. In fact, I’m so intrigued. I’ve only recently developed a deep and fascinated appreciation for hyperbaric medicine. I’m actually getting a hard shell chamber real soon. By the time this interview is aired, I will have had it, no question. I think it’s a crucial part of an anti-aging approach for optimization. Soft shell chambers are a lot less expensive, and that’s exactly what you use. You still use it in your practice. I mean you can get dramatic results with those two.

Actually, let’s go back to the NAD and finish up on that and then go into some of these other topics, because we had a discussion on the phone and I’d shared that one of the reasons that high-dose niacin is so potentially problematic is that it actually – aside from causing a flushing reaction, which is literally an activation of the mast cells, release of histamine and typically radical consumption of methyl groups, which is why you have to be careful. You took that bit of information. To the best of my knowledge, you’re really the first clinician to apply a strategy to remediate the problems of not niacin, but NAD, which is intriguing because the clinicians I’m aware of think that the side effects from NAD – which you can describe because you’ve seen it all the time, I’ve never seen it – is typically attributed to adenosine, not to methyl depletion. But yet you use it and it seems to work. Why don’t you share your experience?

MC: That was a highlight of talking cue for two hours in the airport and taking notes and then going back and then just reading papers. You motivated me because you were telling me how many papers you read. It’s so fantastic, related to the Sinclair experience of that podcast, which I thought was totally fantastic. When you do an IV infusion of NAD, what happens is it creates a flush-like experience that’s very similar to niacin. But you’ll experience it in different parts of the body. It correlates to what’s going on.

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Typically, people can feel it in their head, they can feel it in their heart. They can feel it in their abdomen. People who have endometriosis will usually feel it in the pelvis. Or if they have other pelvic problems, they'll fill it in their pelvis. The intensity of that flushing correlates very closely with how fast it's going. People have told me that it feels almost like a heart attack if it goes too fast. If you slow it down to a very slow rate, then you'll feel almost nothing. The addiction clinics traditionally would do an infusion of a very large dose, but then they would do it for like eight hours.

JM: This is IV.

MC: This is IV. Yeah. Then you told me this and then it got me thinking about methyl depletion. It got me thinking, "Do the other precursors or does NAD have any impact on methylation?" Then remember that when you talk about NAD levels, there's the NAD level on the plasma, and then there's the NAD level inside the cell. There's a gradient, just like many things in physiology, where the concentration's different. The concentration inside the cell is 700 to 1. The concentration in the plasma is somewhere between 5 and 0.01 to 1.

JM: Which concentration are you referring to? NAD⁺ to NADH?

MC: The NAD⁺ ratio. The concentration inside the cell is much higher. So when you give an IV, I think what happens is the NAD starts to get broken down into all of the components. It's going to be broken down into NR and NMN. Some of the increase in NAD that happens intracellularly is going to be from those getting absorbed across the cell and then being converted back to NAD. Some of it is going through an actual transporter into the cell. Imagine there's like a cascade of reaction into the bioproducts that gets broken apart, goes into the cell and gets put back together.

So then it started me thinking, "Well, what about methylation?" I just started reading. Of all ways to give yourself methyl donors, trimethylglycine is the easiest and best one to do because it has basically no side effects that I could find. It donates methyl groups. You can take it as –

JM: Or you can get glycine, which is great by itself. I take it every day.

MC: Exactly. It's fantastic. Motivated by you, I tried that and then I went and took a bunch of trimethylglycine, and then I also gave myself some other methyl support, and then gave myself an NAD IV and basically didn't feel it at all. I felt better after that NAD IV than any NAD IV that I've ever done before.

I called Ben Greenfield and told him, "Ben, I'm going to mention it on his podcast, so don't tell anybody." So I got him to do it. What I started doing is I started doing that with 100% of the people in my practice. Everyone said they felt better, had better outcomes and had almost no side effects with the IV infusions. That was super, super interesting to me. I'm super grateful for that, by the way.

JM: I'm glad to have catalyzed that, but you're the one who made the contribution because I actually would have never thought to do that. It wouldn't make sense to me before I knew. But

you put the two and two together and came up with really an important contribution that I think anyone who's using NAD really needs to start integrating, because there's virtually no danger to it.

MC: But then the amazing thing about that is we had that conversation and kind of basically just figured this out. I'm listening to the podcast the other night that you did with Sinclair. He's taking high-dose NR. He went to the literature and said, "What can I do to kind of support and protect myself while I'm doing the high-dose NR?" He takes trimethylglycine. It just totally blew me away that we came to a similar intellectual strategy for different things. But then consider that a lot of IV NAD is getting converted into NR. It's quite –

JM: Yeah. And then you kind of flew by this. But one of my initial reaction to NAD+ as a therapeutic intervention was somewhat skewed and clouded, because I wasn't a fan of it. That's really because everything that I can read in the literature suggest that there wasn't an intercellular transporter. So you can put it in, but it's not going to go into the cell, where you need it, as you mentioned. That's why it's so important to have it at such a high ratio.

But then it turns out, as you accurately mentioned, that there is, indeed a transporter that takes it from the blood or the plasma into the cell. It's called connexin-43. Once I learned that, then I became a big fan of it. Now, I think this is really what's required. Considering that it's such an important molecule –

I mean obviously we can use interventions. You and I are actually working on strategies to provide NAD therapies at a far lower rate. Because that IV that you're referring to is typically a thousand dollars for one IV, which is typically never covered by insurance and really out of the price range of most people. So we're seeking to provide it at a much lower range, somewhere about 100 dollars and month for getting things in. I don't know if we'll be able to go that low, but that's our goal. And not being a precursor, not NR. We're talking about the real deal.

Why don't you discuss some of the other ways that people can increase NAD without using a precursor or the NAD molecule cell? Because there are some things that we can do to increase our NAD levels.

MC: Okay. But one thing that I'm doing – Just to kind of wrap your head around this before we go into that – is that we're teaching courses for people in terms of how to do this. Right now, let's say that that price point is at 1,000. I'm teaching doctors all over the country. I believe that this is going to get to a lower and lower price point. I think that we're going to create ways for people to get that IV for hundreds of dollars, if not 100 dollars.

And then also remember, there's something super interesting about dosing. I had a woman who flew in to take care of one of my other patients, who's a dear friend of mine, who was here yesterday. I said, "Thank you so much for just coming and helping me take care of him." I said, "I'll give you a free IV." I gave her 50 milligrams of NAD. She'd had a baby and hadn't slept for the last six months. She's just super stressed.

JM: Fifty? Not 500? Five-zero?

MC: Yeah.

JM: Wow.

MC: She came in today and she said, “I can’t remember feeling this good.” A 50-milligram NAD IV is probably going to be in the ballpark of 80 to 100 bucks.

JM: Well, but the NAD itself would probably be well under a dollar. I mean at 50 milligrams, I’m pretty sure that we can get that into the sub-dollar level, really.

MC: Right.

JM: We’re looking at a few dollars a gram is our goal.

MC: Yeah. Then you kind of see where I’m going. What my sort of vision is that we’re going to figure out the right ways to sequence these products, put them together and then potentially make them much more efficient. I did my whole protocol with her. Remember that I’m having a conversation that’s derivative of addiction. And in addition, we have a scenario where you have to give people 1,000 milligrams because they’re “so depleted.”

But often, what I found is in cases of complex illness, of many, many situations, imagine somebody who had a lot of EMF damage. They may have dysfunction of several other symptoms. They may have complex illness. I need to catalyze and give them something that can turn on PARP so that they can repair their DNA. But I may not want to give them too much, because if you give people with complex illness 1,000 milligrams, a lot of times those people will get sicker because it’ll turn their immune system on they’ll start to fight an infection that they haven’t been fighting. It’s very sort of nuanced of how we do it.

To answer your question about ways to do it naturally, a small amount of NAD comes from tryptophan. Getting the salvage cycle to work is another one. I think probably, there are going to be supplements that can help the salvage cycle work better. I think trimethylglycine is one. I found that optimizing methylation helps. I get a bigger bang for my bucks. So I’ll give people S-adenosylmethionine (S-AdoMet) in addition to that. Where did I write it down? I’m sure I wrote down something else.

JM: Well, the two other big ones would be exercise and fasting.

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MC: For like 10 years, it’s kind of like my entry level into this. I started doing yoga. For 10 years, every Tuesday, I didn’t eat. Now, interestingly, I’m thinking of that as a similar type of intervention until I get IV NAD. I don’t see doing IVs the rest of your life, but it’s something that’s an input that has a fairly profound impact. I think that fasting is totally profound because it has an impact on a multitude of biological systems. It seems to reset that. Then obviously exercise is the same. If I could pick my two most important interventions, they’ll be exercise and fasting probably – probably the most studied of interventions too.

JM: Yeah. I'm excited because we had a recent phone call. I aspired you for another exercise, which I'm recently beyond fascinated with, which is the blood flow restriction training, basically KAATSU, K-A-A-T-S-U, developed by a Japanese researcher 50 years ago, just with extraordinary results. There are no studies. The research teams in Japan where this was developed did not look at NAD levels. But I'm confident that it radically increases NAD levels, in addition to exploding your muscle growth. And you're going to do it, which is why I mentioned it.

MC: Yeah. It's going to get here tomorrow.

JM: Yeah. That's great.

MC: I've tried that before. And then this is like another – This is what guys like you are doing, because somebody gave me one of those machines. I think the company actually gave me one of those machines, like four years ago. I didn't know as much as I know now. But I also didn't do it right. I didn't get the profound improvements that you did because you did it right.

What I feel is happening in sort of this podcasting space is people are getting the keys to being able to start to figure out what their formula is to heal themselves. As much as NAD and stuff like that is important for longevity, taking care of your musculoskeletal state, staying healthy, being vibrant, being able to exercise and then being able to run around in the world I think is the most important thing you can do to be able to maintain vital health to an age that's way beyond what anybody thinks is possible now.

JM: Yeah. Thank you for mentioning that because I'm just so fascinated with this molecule. But in my fascination and exuberance, I sometimes fail to mention that this is because you've got to do the basics first. It is almost close to worthless if you're not already practicing the disciplines we know are so effective. It's optimizing your sleep, intermittent fasting, not eating before you go to bed for at least three hours and exercising. If you're not doing that, then if you want to add in NAD or NAD precursors, I think you're wasting your time – or EMF exposure, which is another basic.

These are all strategies that – NAD is on top of that. It's not a magic molecule by itself that's going to cure everything you have. But I want to get back to your training courses, because I was unaware that you offered those. Why don't you talk more about that? Because we have a lot of clinicians watching this and certainly many people who are seeing clinicians and can direct their practitioner to engage in one of your courses. And then also tell us how to find people who have gone through your training.

MC: Thanks. You can go to BioResetNetwork.com. By the time this goes up, we're going to have a full video NAD certification course. I go over the science and a lot of what we're talking about. I go for everything that I found to make it work better with less side effects, which I think is important. I go over our protocols of how we give it in combination with other things. I give it a lot with ketamine. I have a lady here with post-traumatic stress disorder (PTSD). You're not going to believe this story. I said, "Would you ever do ketamine without NAD?" She was like, "I can't imagine doing it because it works so much better." We're going through protocols of how to do that.

JM: Let's stop there because many people are not aware of what ketamine is or how it might work on PTSD. Maybe just expand on that a bit.

MC: It's super interesting. When I was doing anesthesia, I remember one day I had this 93-year-old guy. He was pretty fragile. I couldn't give him as much anesthesia as he needed, because he had like super bad heart disease. I was titrating what to do. I decided I'm going to give him a real low – He's a World War II vet. I'm going to give him a real low dose of ketamine, just because his heart was so sick I couldn't give him that much anesthesia. He actually woke up laughing as I was pulling the endotracheal tube out. He looked at the nurses and he looked at me and he said, "The Germans couldn't kill me. The Koreans couldn't kill me. And you couldn't kill me." And then he just laughed the whole time in the recovery room. That was my first indication that ketamine, which is an anesthesia drug, really makes people feel good.

It turns out that it turns off one of the depression pathways in the brain. It make people feel really safe. It's like this guy is joking as he's waking up from kind of a life-threatening experience. What we do is our protocol, one of the many things that our protocol for PTSD is we give an infusion of intravenous ketamine, which we would give after an NAD infusion. It turns off the depression pathway, Joe. It seems to make people feel really safe. It's a mild psychedelic. It gives them an ability to see that they're going to be okay.

It's one of the most profound things that I do. Because if they see and begin to realize that they're going to be okay – The woman who I saw this morning, she was a victim of terrible sexual abuse. She said that for the last 40 years, she hasn't been able to lie down in bed on her back because she thinks, at all times, that someone's going to attack her. She told me that for the last two months, she lies on her back and she feels totally safe and she hasn't thought about that. She told me to mention it to you. That's sort of emblematic of the type of things that we're seeing. That, along with kind of how we talked about NAD, is part of a reset that's temporary. We're resetting the biological system and then sort of supporting it but just supporting the natural function afterwards. Does that make sense?

JM: Yeah. It makes perfect sense. Thank you for expanding on that. You've got a lot of tools in your bag when people come to your clinic, so the NAD, hyperbaric oxygen, the ketamine, but you also have something that's – There are other clinics who use that certainly. You're not the only one. But you have a process called "hydrodissection," which, I think, you use primarily for pain relief for orthopedic injuries. It's a pretty technical skill that I believe your training as an anesthesiologist allows you to do pretty well. You do this under some guidance. Why don't you talk about that? Because I think it's a really intriguing resource that you offer at your clinic.

MC: Yeah. Hydrodissection is just like the most interesting thing probably in the whole planet, as far as I can tell. It's interesting because I am an anesthesiologist. When I first learned anesthesia, it was in 1998 to 2001. We would do injections around nerves, and we would anatomically know where that nerve was. And then we would have a nerve stimulator, and then we would connect it to a needle and they would go over and then we would touch the nerve. Once the nerve started twitching, then we would know we're right against the nerve where we're putting numbing medicine around the nerve.

While I was a resident, it may be one of the first ones, I don't know. Me and this doctor, Dr. Andrew Gray at UCSF, did an ultrasound where we looked with a cardiac ultrasound at the nerves in the arm and then started to go through and put numbing medicine around those nerves. There are many people before me that – It was his idea. So we started to have this experience where a nerve lives in a fascial plane.

Imagine a nerve is here, you can come in and put a needle in that fascial plane and then surround that nerve with something. It could be local anesthetic. That's what anesthesiologists do. I found out that you could put other things, like 5% dextrose, placental matrix, stem cells, and platelet-rich plasma. I found that you could put that around – Even fat, actually, which is maybe one of the most interesting ones. We began to sort of fix nerve pain. Once I found that out, within probably three months, I had a full-time practice and wasn't doing anesthesia anymore – super crazy.

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It seems to fix peripheral nerve pain. Sometimes it fixes nerve pain from an inflammatory perspective. Sometimes it fixes nerve pain that's just from impingement. For example, with carpal tunnel, we stick a needle in and we put fluid around the medial nerve. That's probably going to, depending on what you put around that nerve, be scientifically proven to be much more effective than carpal tunnel surgery. We treat every nerve from head to toe, in multiple different locations with multiple different solutions, to turn inflammation off, to relieve entrapment and to reset that biological system basically.

JM: One of the most common problems that people see their physician for is low back pain. Typically, many times, actually, it's a result of compression of one of those nerves, the spinal nerves, pain radiating down the leg. Is that something that can be useful? Is that tool useful for this type of problem? If it is, can you name some other common illnesses that you're treating with this tool?

MC: The back pain version is super interesting. One of the things I'll do is I'll do a caudal epidural. So I'll stick a needle into the epidural space. Then I'll inject a relatively high volume of one of the many solutions that we use and surround all of the nerves. The spinal cord comes down and spreads into a whole bunch of nerves in the lumbar area. The anatomical name for it is cauda equina, because all of those nerves look like a horse's tail. We're actually doing a hydrodissection in the epidural space. That seems to have a fairly profound effect of resetting the actual nerves coming off the end of a spinal cord.

We also do hydrodissection of fascial planes in the back that can be quite profoundly helpful at resetting back pain. We also will use ultrasound and fluoroscopy to actually stick a needle into the capsule and the facet joints, which are – The spine is basically like a tripod, Joe. There are two little joints in the back called facet joints and then one big disc in the front. And then in between them is the spinal cord.

What I do is I figure out what's going on, which nerves are entrapped, which nerves are in pain, and then which muscle groups are involved. And then I either do hydrodissection or I use ultrasound- or fluoroscopy-guided approaches to put something regenerative there. If you'll roll

with me on this, because I think you're going to find this super interesting, by comparison, what my community's alternate approach to that is, which is the anesthesia pain concept is that a lot of people will have pain that's generating from those two joints in the back. If two parts of my tripod are not working, then it's not stable. If it's not stable when force comes up, that creates a torque element, because through the spinal cord, it causes pain and impingement.

How I was trained, which is kind of entertaining is the idea was, "Well, I wonder if we could do a nerve block and then put the nerves that go to that facet joint to sleep." It turns out you can. That's called a median branch block. So then they said, "I wonder if I killed that nerve." That's called a radiofrequency ablation. "I wonder if that would make it, so that people would have less pain, because we would fix the pain in that joint by killing the nerve." That's one of the dominant approaches to back pain, as if people have facet pain, which is a gigantic percentage of all back pain. What my community does is they try to kill that nerve.

Well, imagine if I had pain in my thumb and what my approach to it was to kill the nerve that went to that joint? Then what would happen is for the next year I would have horrible quality of movement, but I wouldn't feel it. But then when that nerve came back a year later, I'd have much more pain, because my joint would be all screwed up. That's kind of what's going on in sort of the back pain. It's one of the myriad of problems that's related to another thing that my community pretty much created, which was the opioid epidemic. What we're trying to do –

JM: Don't take credit for that one. I think it has to do with this family in New York, the Sacklers, who were largely responsible for marketing to primary care physicians and so many of these mills. That was the result of most of it. I'm sure the anesthesiology community contribute to part of it. But it, by no means, was the majority.

MC: Well, I still kind of have to take some – I don't write opioids to anyone. I write like three opioid prescriptions a month if somebody has like a really big stem cell thing. I remember it like yesterday, because I remember when I was a resident in 2000. This one attending told me, "The worst opioid addict you could put to sleep with 10 cubic centimeter (cc) of fentanyl." Now, what happened is right at that time, we came up with an idea. It was a well-intentioned ideal: that pain is the fifth vital sign.

When I was a resident, they gave us all of these lectures that pain is the fifth vital sign. They said, "Hey, listen. If you want to be a good doctor, you've got to monitor pain and treat pain." Because they said, "We've been not treating pain." All of the physicians who were trained basically in the last 20 years got this mantra that, "We have to stomp out pain." We didn't have like a – Like what I do now didn't exist when I trained. We didn't have regenerative ways to do stuff. Opioids were one of the few strategies that we had. Long-term, I think opioids are probably the worst drug that exists on the planet.

I remember as clear as like yesterday, my first day of anesthesia training, because you give people these opioids and it's just amazing because the pain goes away. And then probably the most famous anesthesiologist in the planet at that time was this guy named Dr. Ron Miller, who was one of my mentors, who is the chairman of anesthesia at UCSF. We finished that first day. It was great. You're walking around. They say, "Take your drug box. You've got to go over to this room." I've

got my drug box. I just saw how amazing opioids were. And then they walk into a room and they sit down and they go, “We’ve got to tell you something.”

So then, they basically go through a catastrophe of one anesthesia resident after another for the last 25 years. It was almost like one person every year who basically was the smartest, best doctor who had ever existed and then started doing opioids. Their life went to hell and then they killed themselves accidentally. It was like one after the another. That was like my first sort of indication that this drug helps pain, but it creates a catastrophe in people’s lives.

JM: Yeah, yeah. I’d want to get back to the treatment for low-back pain, because you skipped over some things. With the hydrodissection, I’m wondering how your approach works for the herniated disc or the compressed disc that’s putting physical pressure on that nerve? Does it help with that as opposed to the facet syndrome?

MC: Imagine you’ve got these two discs, two joints in the back and then my big disc in the front.

JM: Yeah, yeah.

MC: Probably one-third of the time to half of the time to maybe even 70% of the time – this is what me and a whole bunch of people are figuring out – if you fix the posterior ligamentous complex – and so there are some ligaments called the “iliolumbar ligaments.” There are the sacroiliac ligaments, SI joints, the facets. If you fix all of that, a lot of times you stabilize the posterior part so good that that disc herniation in the front will just go back in.

JM: Interesting.

MC: A lot of some of the top people who were doing intradiscal therapies now as their protocol will do posterior approaches first, because it’s very low-risk and very much easier to do. A lot of times, I’ll do that to get started. However, if there is a disc herniation, we will use fluoroscopy, which is X-ray, and stick a needle into the disc. I’ll either put exosomes, PRP or bone marrow into the disc to try to stabilize that. In some cases, we’ll actually put those products in the disc above and below, depending on what’s happening.

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Often, I’ll also try to treat the nerves around there. So there are some nerves that are in front of the discs, actually, that control your fight or flight nervous system, called the sympathetic chain. That’s analogous to the nerves that I inject up here in the neck. They actually come from here. We’ll treat and reset the – We’ll try to look at see if there are muscle groups that are not working well and start to turn them on by turning the nerves that go to them. And then really putting something good both around the facet joints and in the deep spinal muscles called the multifidus that are responsible for most of your appropriate reception, which is where you are in space. And then in parallel to that, I’m trying to get a sense of, “What else is going on? Can I give hyperbaric oxygen to make the treatment work better? Can I give NAD?” A lot of times that will help. “Will I do a caudal epidural?” Maybe.

A lot of times, if people would have had bad chronic pain, we'll give ketamine. Ketamine will sort of reset pain and that will start to change the experience. A lot of times they're on high-dose pain meds, so we'll use NAD to get them off the pain meds. And then it's a case of rinse and repeat. A lot of times, people will require more than one treatment. But I can't tell you how many people I have who were told there's absolute, 100% sure you have to have a fusion and they're walking around with no pain.

Now, this is experimental. It's new. It's a journey, A, to kind of figure out how to do it, and then B, to train people to do it and then to really delve the solid clinical data that proves it, so that just like what I'm doing with NAD – We teach courses on these. Probably the best teacher of this on the planet is my mentor for ultrasound, Dr. Tom Clark. He teaches physicians at a site called MSKUS.com. We teach there and we also teach in my office these approaches on how to do it and then how to put it all together.

JM: Well, thanks for creating that educational framework. Because personally, I have a contractor who's working for me, doing a lot of upgrading in my home and repairing things. He came down with really severe back pain. He saw a lot of different local clinicians and finally came to – It was intractable. He was basically laying down crying because he had compression neuropathies.

Ultimately, he wound up getting – Because I didn't know what you just shared. I would have directed him to someone who did that type of service, because I didn't realize that he really hadn't addressed the posterior component. And then, typically, the disc pain disappears. It's sad because he – His experience is no different. I'm confident of probably 99% of the people out there essentially wind up having these fusions or microlaminectomies. Essentially, that's the way that the orthopedic surgeon community addresses this, or neurosurgery. That would be the other group who treats low back pain. Seeing someone with your skillset, I think, could be a real rational and certainly safer strategy to addressing this incredibly common problem.

MC: Yeah. And then imagine, Joe, if we said that an NAD IV costs 1,000, but that's really an addiction rate, and then I'm figuring out how to do it for hundreds of dollars and teach people all over the world how to do it. In the same way, we're trying to do the same thing on the regenerative front. I think that, first, I'm going to be able to give you better numbers of knees, but I think – I asked Dr. Tom Clark, who is my mentor. I said, "What percentage of back pain leads to surgery do you think we prevent?" He says, "I don't know. Close to 100%."

Almost everybody has super high deductibles now. Everybody I know has an 8,000- or 10,000-dollar deductible. Once we start to get, at scale, amazing products at relatively lower prices, what I think is going to happen is we're going to start to do interventions that are way below people's deductibles and then start preventing surgery. I'd like to say that I spent the first half of my life putting people to sleep and having them undergo surgery. Basically, I'm spending the rest of my life waking them up and preventing surgery.

JM: Interesting. I mentioned that you're one of four people who I met at Upgrade Labs and I'm interviewing. One of the people I'm interviewing next week, Garrett Salpeter, who has a company called NeuFit, I believe. You're actually familiar with that. I was intrigued with that also. I don't believe you have that specific equipment but have worked with it before with a clinician in your

community who has it and have gotten extraordinary results. Why don't you give us a peek at what NeuFit is and how it fits into your program essentially? It was an amazing story you shared when I was in Upgrade Labs. You shared it with me when I was there. You had a paralyzed person in a wheelchair actually regain some ability to walk.

MC: It was close to that. This is a journey that's evolving and complex and extremely nuanced, so I'd want to do it credit. It was a kid who heard me on a podcast. He heard me talking about nerve hydrodissection on Ben Greenfield's podcast. He called me and he said, "I think that you could help me," because he'd been in a rollover motor vehicular accident (MVA) and was quadriplegic. He was in basically 100% total spasticity all the time.

He came in and we did a hydrodissection with exosomes around all of the major nerves in his arms, his legs and in the epidural space. At rest, his legs were basically in spasticity. They were just locked in spasticity all the time. What happened is once we did that, he could begin to move his legs. He hadn't done that in three years. He started to get this control. And then what happened is he went from being able to stand in a locked out position with the help of two strong people, to being able to do 20 or 30 squats. That was a pretty interesting experience. All of his neuropathic pain went away.

The device that you mentioned, I don't have that device. I got a treatment at the Bulletproof Conference with it one time. I'm not extraordinarily knowledgeable about it. But what happened is this guy got him to go and treat him. What happens is that it somehow has an input, an electrical input of the nerve that goes to a certain part of the body. They started training that, and he definitely got a dramatic improvement on top of what I did, which was super profound. That patient has lost some but not all of that. What I realized through that experience of his is, imagine you and I have all kinds of nerve pain and impingement. It's probably 1 out of 10 or 2 out of 10. Some patients have it at a 9 out of 10.

Imagine somebody who is a victim of being quadriplegic. They pray have all the problems that we have times 10 everywhere, in every nerve in their body. We have to start to figure out what to put in there, what will go in there and have an effect that lasts. I treated him with exosomes. My next treatment that I'm going to do for him is going to be with placental matrix because the placental matrix actually is a scaffold that stays around the nerve within the sheath and just stays there for a while. That's very evolving. I can't really claim a huge amount of success, although we're making changes and he's doing squats, but he's not walking yet. We have a super far way to go.

JM: Yeah. But it's likely will. Even the improvement you've had to date, in my view, I don't think it would be fair to classify anything other than a miracle if it was 10 years ago. Because the tools that you used in him didn't exist and he would still be in pain and crippled up in his wheelchair.

MC: I did a brachial plexus hydrodissection. I put fluid around the brachial plexus. I told him, "I've never done this. I know I've done thousands of brachial plexus hydrodissections, but I don't know this is going to go." He was like, "I'm your guy. We're going to do it." And then he hadn't moved his arm like this in three years. It was crazy because I did it, and right as I did it, basically the nerve woke up and he started moving his arm around. His family, everybody in the whole room, including me, started crying. I had never seen anything like that.

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It's evolving. We have to get better. We're not where we need to be for people. But what I feel is that there's way more hope than I realized was possible. What we thought was not fixable, there are all kinds of things that we can fix across the spectrum of your biology.

JM: Yeah. I'm likely going to be going up to your clinic probably before this video gets broadcast. Part of that process of preparing for it, one of the questions was any pain that I had. Interestingly, at 65 years old, I essentially have no pain in my body anywhere, which is pretty intriguing. I feel really blessed to do that. But it's sort of, to me, it seems a consequence of following strategies that really provide your body with the foundational requirements it needs, including all the ancillary strategies, like sleep, exercise, sun exposure and good food. No pain at all anywhere, which is pretty amazing.

MC: That's actually a good one actually, because my experience around that is that there's like a trimodal distribution. Some people come to see me who have gobs of pain, the chronic pain people. You've got a lot of people who have – like almost everybody who comes in with knee pain has some neuropathic pain or some nerve pain. If you don't fix those nerves, they won't get better. I've got a hilarious story about that.

And then there's a third category of people. They tend to be people like you, people who are doing everything right. Those people don't have like any nerve pain anywhere in their body. They're the people who are doing the things that restore NAD naturally: good sleep, exercise, diet, that whole thing of not eating before you go to bed. And so, you're sort of solidly in that category, which then – That's what makes everything else work.

But then it's super interesting to take that knowledge to the clinic, because if I ask you to do all of those lifestyle choices that we talked about, maybe you're going to say that, "I've got more fun things that I would rather do." However, if I said, "Do all these lifestyle choices and you're not going to have any nerve pain in your body." And then, "Here's a couple of simple strategies like what we're both working on from this kind of supplement things that can optimize things. And then you don't have pain." I think the world's getting smarter and then it's leading people to make way better decisions.

JM: Yeah. It's so exciting. It's a real testimony to the intuitive wisdom of the body and really its ability to self-repair, regenerate and restore within the limited parameters we have. Both of us are big fans of regenerative medicine, and really, ultimately, I think implementing strategies that will get us beyond the biological lifespan limit of 120. I'm pretty confident that the strategies are emerging. They're just starting to come out. They'll actually get us past that limit. But those strategies, I'm also equally confident, will not work at all likely if you're not doing those foundational basics. Why don't you share your interesting story and then some information on how people can find out more about you and maybe get to your clinic?

MC: I meant like one of the most famous orthopedic surgeon at Stanford. Stanford takes care of the Warriors. Some of my patients are owners of the Warriors.

JM: Yeah. Let me just interject here because not everyone is a basketball fan. But I believe they're like the current reigning basketball champions this NBA finals.

MC: Well, I think it's going on right now. We're down. We need like a major shot.

JM: Oh, I didn't even realize that. I don't follow basketball anymore since Michael Jordan stopped playing with the Bulls.

MC: Yes. We're in dire need of some support. But I went up and I talked to this joint replacement surgeon. Basically I sat down and I explained how the peripheral nervous system works. Traditionally, Joe, neurologists don't have ultrasounds. They don't do the type of treatments that anesthesiologists do. The main group of doctors who takes care of peripheral nerves doesn't do hydrodissection. It hasn't been really embraced as part of like the norm of traditional medicine, even though what we do is very derivative of something super normal, like regional anesthesia.

I started to explain nerves and neuropathic pain. I started to explain why people have nerve pain after total joint replacement that's often nerve impingement-related or inflammatory situations and the obturator, the tibial, the femoral or saphenous nerves. It was amazing because I still remember, he looked right at me and said, "You know, 30% of the people who we operate on for total knee replacement end up with chronic knee pain." He goes, "I think this is why it is." He goes, "Do you want to do a study?"

This is just sort of a shot out to like the orthopedic community. Because one thing is that if you start to appropriately treat these nerves beforehand, sometimes I think that you can have, with anesthesia, what we'd like to call preemptive analgesia, where you can reset and calm things down, and then have people get through the experience in a better way. And then afterwards, pick off those nerves and basically just put fluid around the nerves and reset and heal those nerves, because we treat a lot of people who have had total knee replacement. Just sort of tying it in back to like –

I kind of was like – I've tried to take the day off but ended up having patients here this whole morning. One of them, she goes, "Hey. You haven't mentioned this." I had a lady who had a huge surgery. She was a friend of mine. I told her, "Come down. We'll do NAD IVs and hyperbaric oxygen. Basically, everything that I do for a week before, and then you'll have the surgery." And basically, they were freaking out in the recovery room, because it was a huge surgery, and usually in the recovery room for hours and you're in the hospital for days and all this stuff. She got out of the recovery room in 45 minutes and went home the next morning. She hasn't taken any pain meds. That kind of freaked me out there. Like, "Why is this happening?" Every other surgery she woke up from, it took her six months to recover from.

I always thought, Joe – This is the craziest thing. People would come to see me when I was an anesthesiologist and they would say, "Oh yeah. I have that thing. I'll have anesthesia and I'll have brain fog for six months." I had no idea what to do about that or how to approach it. Then now to begin to realize that these tools that we're talking about, you can – They need to be applied to every single discipline within medicine. And then we need to begin to think not about alternative over integrative medicine but just medicine and then doing the best possible thing for anytime and any person.

JM: That was a fascinating story of one of the relatively unknown benefits of hyperbaric oxygen therapy and NAD. But I think a big part of it was the hyperbaric oxygen. It's to give it pre-surgery. Now we know that hyperbaric oxygen works. I mean it's approved for 17 clinical conditions. Actually, insurance covers it. But for most of the conditions, it's not covered by insurance. Like in this application that you just described. So you have to pay for it out of pocket. But I think that it's only the tip of the iceberg of what it's doing. That's why I'm so intrigued. Virtually no one is studying for its anti-aging benefits. I didn't really appreciate that until recently, that it's a potent anti-inflammatory that removes senescent cells, that it increases stem cell activation. Imagine that. These are three powerful benefits of doing it, in addition to improving your cognitive function and probably eliminating the likelihood of doing everything else right of ever having Alzheimer's, and, you know, probably cancer. Because regular hyperbaric oxygen is really such an important component of an optimal anticancer strategy. Not anticancer, but cancer treatment strategy. I mean it's certainly not useful all alone, but integrated with other tools, can be highly have the effect.

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MC: I love everything that you said. I'll walk you through those things. Hyperbaric oxygen, the super interesting thing about that is that the pressure is high. But it's not that high. It doesn't impact the amount of blood that gets into the brain or into a tissue. However, because there's increased pressure, that increased pressure is pressing and pushing to move fluid back out.

What happens is that in this case, which is the pre-surgery, which I think is super interesting, for a week before and then a week after, what I'm doing is I'm helping to get the lymph to drain. That's super important because I'm going to make you as healthy as possibly can be up front. And then No. 2, you're going to be super prepared to detox the anesthesia that's going on. And then No. 3, what inhalational anesthetics do is they go in and then they disrupt the lipid bilayer. They're in there.

It's probably not inconceivable that some of them may stay in there or it may cause dysfunction in the drainage, the lymphatic drainage. Being able to do it afterwards, in the setting of being fully detoxed, is helpful. I'm positive that the NAD was very important synergistically with hyperbaric in terms of being able to detox all of the drugs that she was exposed to, because it was radically different than sort of anything else. Now then, imagine –

JM: Let me just interrupt for a moment. Just to insert that because many people aren't aware of this. It's that NAD and NADPH go hand in hand. You need NADPH for detox. If you don't have NADPH, you will not – those detoxification pathways simply cannot work. I couldn't agree more.

MC: I forgot to tell you this. This is a good one. One of the other things that I do is I give people detox support after the NAD IV. This is super critical because you're mobilizing basically the liver's ability to detox all this stuff and push it into the gallbladder and push it into their gut. If you don't put something in their gut that's going to catch that – I'll use activated charcoal – then it's just going to get reabsorbed.

JM: Yeah. That's a good one.

MC: Yeah.

JM: You just have to make sure that you don't take it with supplements or drugs, because it's going to absorb the drugs too.

MC: Exactly. So then, then take that conversation and then try to say something derivative of that, which is that all of us probably have episodes or moments where we get inflammation in the brain and then we get blocks to the ability of the brain to detox and have lymphatic drainage, just fully pull all of that out. That exists probably like a spectrum. Everything is a spectrum, kind of like autism and Asperger's. Some people will have a little bit of a difficulty with that. They've got a mild headache or some mild symptoms. Some people have brain fog and they can't get out of bed.

Now, if this is an intervention that you can begin to deploy at intervals, that starts to reset your systems. And then you're doing things to optimize the biological systems in general. But my worldview is that there's not going to be a drug, a miracle drug, that you're going to take the rest of your life. It's actually the opposite because those have all kinds of unintended consequences. It's getting your lifestyle right and then finding this appropriate biological tweaks that allow you to heal the DNA breaks, activate the right enzymatic sequences and cascades, so that that system just functions naturally because the brain is smarter than the kidney. And they always said in medicine that the damaged kidney is still smarter than the smartest nephrologist.

JM: Yeah. There you go. Yeah. That's good. Another important anti-aging benefit of the hyperbaric that I neglected to mention is that it tends to improve the oxygen supplies and nutrient, as you mentioned. Once you have adequate oxygen supply – oxygen is used in mitochondria – if you have enough oxygen, you can't get the energy production optimized the way you need to. That's really an important variable.

MC: People can look up this guy, Otto Warburg. He is one of like the seminary guys in terms of NAD. He did some amazing research on NAD. But his theory, and I think this is probably a reasonable theory – I'm just responding about what you said about oxygen and cancer. His theory is that as we age, we begin to go into anaerobic respiration, particularly locally in certain parts of the body.

JM: Cancer cells for sure.

MC: Exactly. So then what happens is cancer can happen. Cancer, very many times, probably happens in an anaerobic setting. That may have happened actually because there wasn't enough NAD. The NAD had come down. And so the biochemistry wasn't working quite as well. And so there is some cellular dysfunction. If we're running our body without oxygen, we're running at a massive inefficiency. In that inefficiency, then the immune system isn't doing surveillance as efficiently as it should. So then, cancer happens.

So then, this is one of these theories of cancer. Then the idea is to intermittently begin to do things that improve oxygenation all over the body, and then to specifically improve oxygenation in areas where there's cancer. But I think it's super important – This is what I see in medicine right now

all the time. People conflate things. Hyperbaric oxygen is an amazing treatment. But it's probably a 5% treatment for cancer.

People will conflate that as if it's a 90% treatment for cancer. Same thing in everything. Because whatever they're selling, they're going to sell as a solution. If you take a picture of any problem, probably there is 5% or 10% of people who only need a 5% solution. But those are the people who they market that they got totally cured from a 5% solution. Whereas the reality is this is oftentimes more nuanced than complex.

JM: Yeah. It really is an advanced therapy in my view, but an important one.

MC: Yeah.

JM: Alright. Now, how do we find out more about you if someone's interested in doing that? In introspect, maybe just repeat what you said earlier about your training courses and how to find your clinic and then maybe even more importantly, because a lot of people who are in the East Coast are not going to fly all the way to the West Coast, so how they might find someone locally with your skillset. Because you've provided a very compelling story for really exploring alternatives to conventional strategies that are used pretty much every day and almost everyone for these types of common problems. Many people fail to appreciate that someone with your skillset could offer a practical alternative.

MC: My practice is BioResetMedical.com. Probably 65% of the people who we see fly from all over different places all over the world who just kind of – Until sort of the podcast thing, 100% of it was just they had a friend who was here. BioResetMedical.com. You can come here. We're training people. I have somebody in the office almost every day sort of watching and learning. They found us at BioResetNetwork.com. We're going to start to list practitioners and get that word out. But I think that soon, there's going to be an army of people out there all over the world doing this type of stuff. It's just going to be sort of a relatively normal standard of care type of approach.

JM: Great. Thanks for joining us. I really appreciate everything you're offering.

MC: Thank you so much.

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