Introduction to My MD Unscripted

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Yeah. I can't with a torn spinal cord. So to take tension off the spinal cord, they curve and twist and ultimately slow down the height that person was supposed to get so that the cord has time to grow and keep up and in the end you got this curved, rotated vertebrae spinal cord.

Welcome to My MD Unscripted, where healthcare gets personal and the script gets tossed. I'm Dr. Clint Carter, ER doctor turned direct primary care freedom fighter on a mission to challenge how our healthcare system treats patients in America.

In every episode, my expert guests and I dive into real conversations about what's broken and how we can fix it by making healthcare about people, not just managing disease.

It's time to rethink what healthcare should be and how we can make it better together. Welcome to the Fightcast. Hello guys, welcome back to the My MD Unscripted podcast.

I'm your host, Dr. Clint Carter, and this one's going to be a fun one today. We have Dr. Mark Morningstar. He is going to take us on a trip that I didn't see coming with the topic of scoliosis.

So, you know, I always thought scoliosis was an orthopedic crooked back that needed a bunch of, you know, braces and screws.

Dr. Morningstaru2019s Scoliosis Practice Origins

And ultimately, I think we're going to find out something a little different today because what if scoliosis isn't just a curve in the spine, but a neurologic and metabolic condition that we've been treating backwards for as long as we've been treating it, quite frankly.

So we are joined by Dr. Mark. He has 20 years plus in spine research, 60 plus peer reviewed publications. He was the first to publish research linking neurotransmitters and scoliosis progression.

He's a diplomat in spine medicine, integrative medicine, and clinical nutrition. He's a chiropractor. He's the founder of Back Genius. He's done it all.

Now he's hosting a podcast called Scoliosis World Podcast. Dr. Mark, thanks, man. Thanks for joining us and tell us a little bit more about yourself and how you got here and rock and roll.

Thank you, Dr. Carter for having me on the show. First of all, I appreciate it. But yeah, I've been in practice now just rolled over 23 years here. Hard to believe it's been that long, but yeah, I have essentially a scoliosis dedicated practice for roughly 18 of those 23 years.

Yeah. And a lot of it started with really the improvement in the consistency of outcomes when you can force somebody into home compliance with your recommendations.

And I say that because early in my practice, as I'm sure you will appreciate this, you know, I would have patients come in to see me for, especially as a chiropractor for a lot of things that I would consider to be consequences of poor lifestyle choices and no shock, I'm sure.

And, but the problem is few patients. really wanted to have any skin in the game themselves. It's just kind of like here, I want here doc, come and fix me.

You know, I don't want to take any active role myself. I just want to come see you and have you take care of it. Yep. Well, at some point you have to sort of have an ethical conversation with yourself in the mirror saying, if all I'm doing is the same thing over and over, what am I really doing for these people?

Yeah. And I almost got to the point where I didn't know if I wanted to do this anymore. But what did start to happen is I happened to practice in an area where the closest pediatric orthopedic surgeon is at least an hour away.

And so a lot of the parents that I had seen would start bringing their children in to see me because all of a sudden they, maybe they were at a well child pediatric visit and found out that they have a curvature.

Well, it might've been, you know, several weeks or months waiting to see the ortho or maybe. The curve was not severe enough to do anything about. So they're kind of in this watch and wait kind of, you know, treatment strategy, if you call it that.

And so light, you know, as I'm sure you can appreciate no parent wants to do nothing. Right. So a lot of these parents brought their children in to see me saying, Hey, look, you know, you kind of helped me out with my back and do, and I know you do all this rehab and exercise stuff.

Could you help my daughter? Well, lo and behold. Even though mom and dad might have literally done nothing I asked them to do at home, from hell or high water, they were going to have their daughter do what I asked them to do at home.

At least by most accounts. Well, as soon as that started happening, the results started becoming way more consistent and it started being a lot more clinically meaningful to me, you know, because I look at scoliosis is not a product of bad lifestyle choices.

You know, this child is literally a victim of her circumstance. Correct. And it just felt more personally rewarding to help children with a problem that they themselves didn't ask for from that perspective.

And from there, it just really skyrocketed. It just took off for me. And then at that point I didn't look back and I was like, this is what I want to do.

One of Jordan Peterson's 12 rules for life is take care of yourself as if you are someone that you're in charge of taking care of. Right? So if only those parents had taken care of themselves as well as they ensured their daughter was going to be taken care of.

What Scoliosis Is and Who Gets It

Yeah, they'd be in a different spot too. However, okay, so let's define scoliosis for the audience out there that's like, yeah, I've heard of that, but what exactly are we talking about?

Yeah. So classically scoliosis is considered a three-dimensional curvature of the spine that when you measure it on X-ray, it measures at least 10 degrees by what they call a Cobb angle measurements.

And there always has to be some type of a rotatory or rotational displacement as part of that curvature. Okay. And classically, you know, it's usually diagnosed, you know, by a pediatrician during a well child visit, like I mentioned in my example.

where, you know, they do the classical Adams forward bending tests. You kind of look at the surface of the back to see if, you know, the rib cage is higher on one side compared to the other.

Obviously you can see it posturally in terms of, is it one shoulder higher than the other or is one hip sort of sticking

out laterally, you know, farther than the other side, that kind of stuff.

So there are a lot of different postural cues that most people go off of to determine if a child has scoliosis. And then from there it becomes. You know, there, there are versions of scoliosis, most of which are what they call idiopathic, meaning there's no agreed upon cause of that particular type of scoliosis.

And then you have neuromuscular and congenital, which are always secondary to some other underlying primary disorder. Like for example, cerebral palsy in the case of neuromuscular or Down syndrome in the case of congenital, that kind of thing.

Yeah. Well, okay. So for me. Family medicine trained, spent too many years in the ER, so I probably lost most of my intelligence in the process. However, I think of it as a bone structural abnormality that you would fix.

The orthopedic way, if you were to fix it, I love the fact that what we're talking about here is addressing this more holistically. Are there genetic components to this?

Does it tend to run in families? Is it usually isolated? What's the stat on that? It's pretty much universally accepted that there is a genetic component to it.

And that's not, and it's obviously for the audience, it's not an autosomal dominant disorder or anything like that, obviously. It's really more of a genomic and an epigenetic predisposition slash, you know, turning on and turning off depending on your lifestyle choices.

But there are definitely genetic components to it. And I would say that a lot of times what we run into is first and foremost, when we talk about family history with scoliosis, you know, we are probably of a similar age and a point where our parents or grandparents They didn't really check if they had scoliosis unless it was so blatantly obvious.

Everybody just accepted that they had scoliosis. So I think there are some cases where in terms of family history, some families really just don't know if they have a family history or not.

But even, even minus that, what we tend to usually run into when we do a lot of genomic testing clinically is that I think a lot of patients inherit genes from both mom and dad.

that have downstream functional metabolic consequences that sort of feed off one another and sort of this confluence of inheritance of these genes makes it easier to develop a curve during a time of rapid growth.

I like that, that last part leads me to my next question, which is, you know, I'm trained to look for this in say 10 to 12 year olds or that late pre-adolescence, early adolescence during a time of growth.

Is that? Normally, when we would diagnose this, is growth playing a role in it or is it just becoming obvious because they're growing and it's becoming more obvious?

Well, I think growth is playing a role in the sense that it's the initial stimulus.

Genetics, Growth, and Hormonal Factors

When we talk about scoliosis, so going all the way back and this gets into the weeds a little bit with the audience. So if you go all the way back, what's interesting, if you even just search on PubMed and go all the way back to the mid 1980s, you're going to find all kinds of studies on, for example, melatonin and how it contributes to the onset and or progression of idiopathic scoliosis.

Now, newer than that, they've discovered it's not necessarily always just a melatonin deficiency, but it's also a lack of receptor sensitivity to melatonin or what they call melatonin signaling dysfunction in the literature.

But either way, it's still associated with melatonin. Of course, a lot of people just assume melatonin is a brain

chemical that helps you fall asleep at nighttime.

But in reality, it has very powerful influences on anti-gravity muscle tone and signaling for bone lengthening. And one of the chief problems, not coincidentally that we run into during adolescence is that you sort of have the, you know, there's an association between low bone mineral density in preteens and teens compared to their peers.

Not to a degree that will be classified historically as osteopenia or osteoporosis, but they are typically much lower, one to one and a half standard deviations lower than average compared to their non-scoliosis peers.

I mean, that's significant for a female for sure. Down the line, that's going to play a role. Absolutely. To kind of even just add another layer to this, you know, when we talk about bone maturity and bone maturation in our teenage years, especially among females, one of the studies published here just a couple of years ago showed that salivary progesterone levels were about half in scoliosis teenagers, teenage females versus their non-scoliosis counterparts.

And their levels actually didn't match up through the lifespan until they were all postmenopausal. So they think that's causative or you think that was part of the problem or just an association with the melatonin or?

Well, I think first and foremost that progesterone issue has a genomic contribution to it in a certain sense. But I think also, you know, a lot of people look at progesterone purely as a reproductive type of a hormone, as far as regulating, menstrual cycle, that kind of stuff.

But its most powerful influence in terms of the growing years is actually the development of bone mineralization and the signaling for bone mineralization.

And even earlier in the preteen years, it works in tandem with BDNF or brain derived neurotrophic factor in the brain for anchoring and ingraining long-term motor memory patterns.

All right. So we're already, we're already, we're already getting deep and I already apologize to the audience here, but it's so interesting that this feels like a ortho, ortho problem.

And we're already talking about two different chemicals that come from the brain and at least, at least primary or secondarily, what other sort of brain spine connection are we dealing with as we sort of move into the next phase of what the heck's going on here?

Sure. And I think, you know, especially for me as a chiropractor, the product of our training is essentially based on the idea that our body has the innate ability to recover.

We just need to get out of the way, you know, and find the impediments to that normal functioning. Right. So within that, when I look at a spinal curvature, you know, most people look at the curvature as the entire, you know, construct we call scoliosis.

That curvature is really just the primary musculoskeletal symptom of scoliosis. It is not necessarily synonymous or representative of scoliosis. And I say that because what's interesting is to think about it this way is that scoliosis really by most newer research studies out in, you know, since the 2000s and especially since the 2019 and forward is that scoliosis is really considered the epitome of a sensory integration problem.

And a lot of that has to do with being able to. figure out active growth periods and how to grow symmetrically in the presence of different hormone metabolism issues and imbalances.

It really, what really blows people's minds is when I tell patients, look, this curvature is not here as a random event. The curvature that we see on this x-ray, your brain actually did this to make the best of a bad situation as an adaptive response.

So historically, and this has been known for a long time. In fact, a lot of the initial study into this came out of

Germany. But what ends up happening is you have this proportionate disconnect between the rate of lengthening of the spinal column, the vertebrae, versus the spinal cord itself that's being housed inside of it.

Well, of course, the strength of the bone obviously is much more than the strength or the tensile strength of the spinal cord. Well, when now the bone lengthening starts to outpace the cord lengthening, You have a, essentially you start to get a tensioning pull down effect on the brain stem to which obviously the brain is going to respond with what in the world's going on here.

We're going to have a problem here. Yeah. So now the brain makes a binary choice and it's always going to pick the choice that allows that person to survive the short term.

Even if that means there's a consequence 50 years from now because of it. And so the brain says, look, I need to create a coil down effect. to induce this curve to put some slack in the spinal cord.

So I don't tear it. No way. And in the meantime, the core, the curve, excuse me, is not ideal, but I can live a long full life with a curve. Yeah. I can't with the torn spinal cord.

So to take tension off the spinal cord, they curve and twist and ultimately slow down the height that person was supposed to get so that the cord has time to grow and keep up.

And in the end, you got this curved, rotated vertebrae spinal cord. Absolutely. And that twisting of the spine prevents global torso lengthening, hence minimizing the cord, the spinal cord tension.

Yep. That's insane, man. I had no idea any of that was a thing. It makes sense. I mean, I wouldn't have guessed it in a million years, but it makes perfect sense.

And I think it's funny that you're like, yeah, you know, a long time ago they figured this out. Some of the problem I think, and I'm sure we'll probably get into this later, but that's why a lot of the stuff really doesn't get implemented into clinical practices because at least in most parts of the world, adolescent idiopathic scoliosis is spearheaded by an orthopedic surgeon.

Correct. And if I ask an orthopedic surgeon about progesterone or, you know, all of these other things, their eyes are just going to roll back in their head.

Brain-Spine Adaptation and Sensory Integration

So that's not what I do. Right. And this really is one of those conditions that needs to be managed by an endocrinologist, an orthopedic surgeon, a neurologist, you know, a PT, you know, chiro, PT, you know, there are multi-dimensions to this.

That's so cool. So, okay. The classic ortho strategy is if it's not bad enough, do nothing. If it's bad enough, put them in a brace that's static. Just, you know, puts that, tries to gradually over time undo what's happening there.

And if it's severe enough, go in and surgically put some metal up in there and straighten that bad boy out to some degree. And that doesn't sound like it's addressing the problem really at all.

That's wild. Well, first and foremost, like you mentioned, the first step is just the wait and see or the watch and wait, you know, observation only, whatever you want to call it.

I just, I don't understand how in the year 2026, doing nothing can actually be considered a treatment strategy, right? I mean, no, no, no treatment strategy.

And it's, it's a watch and wait, but it's not a treatment strategy. Right. But yet that's the standard of care. Well, if it's the orthopedic making that choice, then chances are he's doing the right thing because the other option would probably to be do harm to some extent, right?

I mean, first do no harm. Don't mess with this kid yet, but you could be doing, or someone could be doing something. So tell me about your strategy in this phase of an early adolescence, because that's when it's diagnosed the most.

I got all kinds of questions about what that means for adulthood, but tell me how to approach this 12 year old, usually female, sometimes male, with some early curvature.

Where do you start? Well, I think really the foundation of it is in a lot of the, like we talked about earlier, the genomics and some of the functional medicine concepts that apply specifically to this patient population.

I think first, what I prefer to do is to start by identifying predisposition. And so for example, if I run a genomic test on a patient and I find out that they have an MTHFR and a COMT gene variant or positive for those two gene variants, Their curves are much, much more likely just having those two gene variants to progress 20 degrees or more from diagnosis to skeletal maturity as compared to people who only have one or the other of those variants or have neither.

Yeah. So identifying a lot of these predispositions is very key. Same thing with, you know, if I find they have a vitamin D receptor gene polymorphism.

Well, now it might be a good idea to start that person on a D3 product because I at least want to do what I can to minimize the chance that those gene variants are going to impact downstream physiology.

Yeah, right. Because obviously I can't change them. And then from a physical treatment perspective, dealing with the genetic risks are one thing, but then I also want to see, okay, if there are a number of genetic variants that pop up, it's also not a bad idea to test, are they having real time downstream ramifications already in terms of maybe their L-tryptophan neurotransmitter pathway, or maybe even some of their hormone cascade or combinations of both of those.

And that way I can intervene at that level as well to get that back to normal so that it's not impacting active growth in the immediate future. And at the same time, still working on a lot of the genomic predispositions to prevent downstream things from recurring once we have them managed properly.

So those things are easy to do before we even get into physical treatment of the curve. Right. Because the reality is, in fact, in 2023, summer of 23, there was a PubMed journal called Children, and it's a Swiss medical journal.

And there was a study published by three Romanian orthopedic surgeons who took a group of newly diagnosed children with scoliosis, so mild curves, typically in that watch and wait kind of threshold.

And they split that whole group into two subgroups. One of them, they just continued to watch. One of them, they literally just put them on three nutrients, vitamin D3, melatonin, and calcium.

And in the kids who just took those nutrients, their curves did not progress nearly as substantially as the kids who just continued to do nothing. So even at the very least, why wouldn't you at least have your child do those things?

Because it's not like those things are bad for you anyway. Right. I mean, I got my kids on, well, they don't have them on calcium. I probably should, my daughters anyway, but yeah, vitamin D for sure.

Right. And then in this phase, you know, the hormones play such a big role. I mean, do you guys ever need to get into the hormone manipulation side of things?

Sort of. I mean, if we, if we do typically, I mean, obviously, especially when it's in a young child like this, typically, I really hate to give them external exogenous hormones.

I'd rather encourage their body to make their own. So whether that be through precursor intervention or something else, I would prefer to do it that way, as well as different dietary means to try to promote different hormone

metabolism issues and minimizing Xenoestrogen exposure, all that kind of stuff.

That's perfect. Yeah. Yeah. I wondered, yeah, that's so interesting. You know, well. No, I have three kids. My oldest is 20, my youngest is 14. No one has any scoliosis, but I've got three of them with PARS injuries and you know, they weren't like gym nuts.

And I'm just like, how much of this was? you know, brain spine connection more than just, you know, dumb football coach or, you know, gym coaches and stuff.

Um, but that's, that's another conversation for another day, but you've got, man, you've got my brain running and my wife's going to be all mad. Okay.

So, I mean, and we just kind of went over it, like the watch and wait strategy is just, you know, what I like about that study that you just mentioned is you took the standard of care, which is to do nothing.

and compared it with super benign supplements. And the point was made that doing nothing is the weaker of the two strategies. What else should we do? I love that.

What do you do next? Well, so obviously I don't necessarily, even when we start to implement the functional medicine strategies, even at the mildest curve intervals, we're still doing something to work on the curve itself.

Functional Medicine and Early Intervention

Because even if say a curve is only 13 degrees. Yeah. Every big curve started out as a 13 degree curve or there about that. You know what I mean? So if I can control or eliminate a 13 degree curve, which is a far easier thing to do clinically than to try to treat a, a 40 or a 50 or a 60 degree curve, obviously it behooves me to, to want to do that from just, you know, just to hedge my bets on my success and my outcome.

And, but there are a lot of ergonomic based, very easy and oculus kinds of things that you can do for a 13 degree curve. that will benefit that child and help kind of reinforce them as habit.

You know, it's, I always, in my office, I always use the same, the goal is to do a little, a lot. And I don't know why I'm, I'm big on analogies this way, but it's sort of like, I always tell my patients, the reason why people are so good about brushing their teeth, at least by and large, is because it only takes a few minutes a day to do it.

I do it, I get it done, I go about my day. If all of a sudden tomorrow, the American dental association came out and said, well, if you really want to prevent cavities, you have to brush your teeth for an hour a day, three days a week.

Nobody would brush their teeth and now our world will look much different. And it's the same with any kind of exercise. If I can give somebody a scoliosis based regimen to do at home, that might take them eight, 10, 12 minutes to do.

They're far more likely to hang with that than telling them, all right, I need you to do an hour yoga routine or a Pilates routine or a scoliosis specific exercise routine three days a week.

They're just not going to do it. Correct. And why try to reinvent the wheel? So if I can get them to do a little, a lot, it always becomes more successful.

And you know, at one point you said, it's like a sensory deficit disorder along the way. Is there, I mean, is some of what you're doing, is it, are we strengthening the other side?

Are we just retraining the body's sort of proprioception and sensing space and time? What are some of the theories behind what you're, what you're trying to come up with with some of these exercises?

Yeah, actually, I think a lot of what you said is exactly right. A lot of functional MRI studies, they've shown that the

somatosensory cortex in the brain is really just all out of sorts in children who develop idiopathic scoliosis.

So it really becomes devising strategies to help that map reorganize in a way that is more symmetric. You know, one of the big points I try to get across when developing any exercise routine for a patient is that when we talk, you know, a lot of people will talk about the idea of core stability, for example, but most people, when they hear the term core stability, they're really just talking about their apps.

If you've seen a bad thing, it's just not complete. When I think about the concept of core stability, what I'm really referring to are all of the deep spinal rotator muscles that are no more than an inch or so long because they act just as much as a sensor as they do a joint mover or a joint stabilizer.

And the brain is relying on those small muscles to tell it where my spine is at at any moment in time. so that my brain knows how to provide the right output to do whatever I need to do task wise at the moment.

And the problem becomes you get a lot of really large asymmetries in those deeper spinal muscles in kids who end up developing a curve. Well, and some of those deeper spinal muscles are mediated by both melatonin and serotonin, which classically in scoliosis are off, whether it be a metabolism issue or just frank deficiency.

Okay. So, you know, one of the things that we do with our wellness patients here in my direct primary care clinic is like, you know, As we age, muscles, the currency of longevity, your core strength and your grip strength directly correlate to your life expectancy.

Stability and mobility and flexibility are really what you need for function. And one of the tools that we use is called Msculpt Neo. which is it uses a magnetic wave to strengthen the muscles that it gets a hold of.

It started out as a purely cosmetic device, but now it has so many functional settings where we use it to strengthen the muscles of the back and melt the fat and strengthen the muscles in a cross section.

Strap muscles next to the spine look like a stake, if you will. And then on an MRI of someone with bad back and these older patients, It looks like a really, it's got a lot of marbling, right?

It's got a lot of fat around the steak, which means it's not stabilizing the spine where the darn, because the part that's up against the spine is the fat part.

And if we take that same patient, we lay him on the Emsculpt for, you know, six, eight treatments, 12, whatever the need be. We melt that fat down, we build that muscle up and we stabilize the spine and it immediately starts causing less pain.

And it didn't do anything to whatever the pinch nerve was or anything. It's just, there's more proper, the body knows where the spine is better. It can stabilize it better, all those things.

And so that, what you just said, while it's, you know, I don't know, it should be obvious, but I think it's really, I think hits home for me because. Where you, where your body knows where you're, if you close your eyes and hold your arm out, your body knows where it is partially because of the muscles that get stretched and the muscles that aren't stretched.

And that's just how your body works. So of course it works like that at the spine. And that's, that's so great. And the spine is the epitome of that. As the center.

Yeah, right. And I sort of, you know, a lot of this too, again, to go back to the central neurological concepts of this, you know, postural control, spinal muscle control, I sort of use those interchangeably, but You know, we have two primary control mechanisms.

And so when we talk about into specific types of rehab exercises, the goal is to really train both of those postural control mechanisms. So you have one of them.

So when I'm talking about this to patients, the one control mechanism is what I would call your autopilot setting. Meaning, you know, as we're standing here, having a conversation or sitting here, we're sitting in our natural resting posture, whatever our brain believes is normal.

Exercise, Neurofeedback, and Bracing Strategies

And hence it's on autopilot. I don't have to think about the way I'm sitting. I'm just sitting. However, at any time you could say, Mark sit up straight and I could come up nice and tall and have this nice military posture and all this kind of thing and, and engage what we call the manual override postural control mechanism.

But at any point, you know, I'm only going to be able to hold this for a few minutes until I go back to. Not thinking about it anymore. And I go back to autopilot, right?

So the difficulty with scoliosis exercises is a lot of the ones that are out there really only engage the manual override. Well, that makes sense. But the problem is the manual overrides really only in control for moments of a whole day.

Whereas the autopilot's in charge. you know, 99 point something percent of the time of, of an upright day. So we try to incorporate exercises in neuroscience.

We call it dual tasking to where you're really trying to three occupy the conscious brain with a certain task while doing other things to promote postural efficiency and.

changes in curve structure and re-engaging motor habits so that we change that map in the somatosensory cortex to a better image of what the brain believes it would rather have as normal.

Tricky, tricky. I love that stuff, man. I mean, that's great. Gosh. Okay. So you've also got a brace that I mentioned at the top of the show. What makes it better than say what the orthopedic would be doing?

You say, so we have something called a scoliosis activity suit and it actually works very well in tandem with a hard brace, like an orthopedic surgeon would use her PT Cairo because they work on different mechanisms.

So of course a brace is really predominantly a guided growth concept where we're trying to promote better growth, more symmetrical growth, especially at nighttime while you're sleeping or during your active growth periods.

The activity suit on the other hand is basically when you really, if you try to simplify it, it's really a neurofeedback device. So we put it on in a way that is specific to that particular person's curve pattern.

And in doing so we expect that by putting the suit on them, the suit is basically creating an eccentric amount of, um, muscle reaction. So that the person is constantly doing an eccentric exercise in direct opposition to their curve.

So it's almost sort of like tricking their brain into fixing the curve. Whereas a hard brace is just providing passive forced correction. I'm trying to get the muscles to hold it more stable actively.

So they both work really well in tandem, hand in hand. And frankly, the compliance is a lot better because, you know, a child might wear an activity suit, you know, two, three, four hours a day.

in lieu of wearing a brace, you know, 10, 12 hours a day. Yeah. And they can now just sleep in the brace during the time where they are actually growing and taking advantage of the hard brace while also not creating the psychosocial impact that rigid bracing causes in that age group.

Yep. Two of my three, two of my three with their back problems had a Boston overlap, hard plastic. My daughter's still, my youngest is weaning out of it now.

Um, they love it. Love 23 and a half hours a day, a week, 23 and a half hours per day in that thing for months at a

time. It's awesome. And we didn't do it for one because obviously putting someone in a brace that long, they get, the core gets weak.

It's got all these negatives. Like it's not, it's not a great idea. Um, but the one that we did in brace took longer and you know, sacrificed more in the, in the long run.

So we went with it for the third one, but. Okay, so I've got a, if I have a kiddo or quite frankly, an adult with some scoliosis, And the specialists are talking about surgery and bracing and what is the first thing that that person should do?

Like what's step one? Do they need to reach out to you? Do they need to ask for certain testing? What's something that we could do to sort of maybe open up the treatment plan a little bit from just the orthopedic approach?

Most patients just, you know, usually we do a free phone consult or a zoom consult with patients just to kind of see where they're at, see what, you know, what their treat has been up to date.

If they have any, uh, just kind of, you know, get a lay of the land, you know, for present day. Um, but I have a great many patients that I actually are really only about half of my patients are physically in my office.

We have a lot of patients where they're doing a therapy locally that they're very happy with. They're just not really getting the functional medicine side of the equation from their provider.

Yep. And so they, they consult me with a lot of that kind of stuff, which is fine. Um, and, but if they're in a position where maybe they're already at a surgery threshold, I think the biggest thing that people need to realize is that, you know, presently they say that surgery is at 50 degrees, where that's when a surgeon typically talks about a 45, 50. But I've been in practice long enough that it really, it used to be 40. And then here a few years ago, there was an editorial published a letter to the editor in a, an orthopedic journal out of Europe.

Where they actually, you know, orthopedic surgeons from Asia said, look, because. Organic health issues don't really start or have the potential to start until a curve reaches 80 to 90 degrees.

We probably given the, given the risks of posterior spinal fusion surgery, we, we maybe should increase the risk or the surgery threshold to 80 degrees, knowing that that's where the organic health implication got really.

Wow. And that anything under that by most cases is typically when you boil it down as a cosmetic thing. And that's not to invalidate, you know, cosmesis by any means, but at least then families know, you know, they go in eyes wide open as to why they're having that surgery, not just because ortho said so.

Yeah. Well, and like I said, you know, they've got, if anyone's been diagnosed with scoliosis, they have the ortho approach. That's where they were referred, I promise, because as a family medicine doctor, that's what we were taught to do.

When to Consider Surgery and How to Reach Help

Pediatricians, same thing. And we've got great specialists at the pediatric hospitals and the Shriner hospitals and all of those things, but it's large.

largely an orthopedic process. So bringing you in some other functional approach. Do you have a license in most states? Like, does it matter? Yes. Especially from a telemed thing, I think there's only a small handful of states where you can't, you have to be licensed where the patient is at, obviously.

But for my practice, you know, that I'm covered for the vast majority. Well, how can people get ahold of you and start that process of just educating themselves and getting maybe in an evaluation?

Yeah, sure. So you can reach us. My website is just scoliosispractice.com for my main clinic site. I also parent

company or educational company where we teach other providers is called Back Genius.

And you can go to backgenius.com and see that. Or you can reach me on email, just drmorningstar at nwprc.com. Okay, man. And we'll get all that in the show notes.

And I guess the take home for me is, you know, I'm not fully functionally medicine trained in a direct primary care practice. I've just become so functionally friendly because.

In the box, insurance-based medicine just didn't have enough answers for me and it led me down the hormone pathways, led me down some of these pathways.

We've got one provider here that is functionally medicine trained and we're growing in that. But like if functional medicine, meaning root cause. what goes in your body, what movement, stress, sleep, all these sort of root analysis type things can fix something as obviously structural as scoliosis.

What can't we do with some of this stuff, right? Like just being able to first do no harm with our lifestyle and then, you know, treat ourselves as if we were someone we were in charge of taking care of.

That sure would be fun. Absolutely. I think functional medicine strategies are really the key. You know, the straw that stirs the drink, obviously doing by themselves, you're not going to solve a curve.

But what it does do is it helps you eliminate all of the risk factors that triggered that curve in the first place. Because if you, frankly, if you don't deal with those things, they don't just magically go away because that child became an adult.

And now years later, they still have a curve that's now causing them pain. Well. If I want to get a handle on that curve, keep it stable, or perhaps even try to improve it to any degree, I have to get rid of the reasons as to why it started in the first place.

It's just logical. Oh, and by the way, if it happened because your COMT and your MTHFR were off and now your hormones are off and your neurotransmitters are off and you feel like junk, guess what?

Scoliosis isn't the only problem you've got just because your skeleton's immature. Like there's so much. going on in that picture right there, that so many of us, I had my genes done by Dr.

Keeley, who has a podcast and he did my genes on air after I took his gene test. And he's like, yeah, man, you lost that COMT lottery and all the things, right?

And so, well, that explains the depression and the low T and you know, it's so great. So absolutely. Thanks for coming on, Mark. Thanks for what you're doing and for the light you're shedding and how dedicated you are to this that, you know, thankfully it doesn't hit every other kid, but when it hits, it can hit pretty hard and it can be a really, really big deal.

And to be able to do something about it is so empowering. And so thank you so much for coming on and sharing with us today. Absolutely. I sincerely appreciate you having me.

Thank you. Absolutely. All right guys, thanks for being with us and we will catch you guys next time. Thanks for joining me today on My MD Unscripted.

I hope today's conversation opened your mind and inspired you to imagine a better path for your health and therefore life. If you found value in this episode, be sure to subscribe, leave a review and share it with someone passionate about transforming healthcare.

Real change starts with real conversation. So let's keep them going. Until next time, stay well, stay curious and never stop pushing for better.