

**THE MODEL
HEALTH
SHOW**

EPISODE 392

**Brain Wash: How Your
Environment & Habits
Are Controlling Your Life**

**With Guests Dr. David Perlmutter
and Dr. Austin Perlmutter**

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2020 is here. 2020 is upon us and for us, this year, I really want to encourage you and support you and propel you into the very best year of your life. I think we need to take a whole different approach and that's what this year is going to kick off with. Instead of trying to treat the different symptoms of the way that we live our lives, trying to stop ourselves from doing certain what we consider negative behaviors and to encourage ourselves to do positive behaviors, we got to get back to the core place of where all of our decisions actually reside.

And that starts with improving our brain health. Our brain is that governing force, that's determining all of our impulses, our feelings, our desires, our simulation programs of what can happen if I do or don't do a certain thing and regulating how I feel.

And today we've got a very, very special episode, we've got a father and son physician duo here talking about their brand new book "Brain Wash" which is absolutely essential as we're moving forward into 2020 and far beyond, because whether we realize it or not our brains have evolved over millions of years to certain conditions to be able to survive and to even potentially thrive in certain conditions.

Today our conditions, the way that we live our lives and things that we're exposed to are very, very different, even in the last decade, versus millions of years prior. And so our brain has not been able to fully adapt yet, because evolution takes time to our new exposures.

And so those things that can be coming in and grabbing our attention, creating



distraction, pulling us away from the things that we really want to achieve in our lives, like our phones, our phones are such a great opportunity, it's ripe with opportunity; there's never been a time where a device you hold in your hand can help you to create a career whether it's doing something like a Doordash or whether it's building a platform and being an influencer in the health and wellness space, or in the space of music, or whatever the case might be— this phone holds a lot of power.

But like with many things there is a potential downside to it, and so we need to be more cognizant of its effects and utilize it in a way that's helpful for us and minimize the things that can take us away from the things that we want to accomplish this year. And so that's what this episode is going to be about.

Before we get to that, obviously this year is about health and wellness and our nutrition as well and if you're not doing this yet, I've been talking about this for about 15 years now, I've been a huge advocate of folks getting themselves a green superfood blend rather than going towards the standard "multivitamin" that is a bunch of synthetic versions of vitamins and minerals.

If we look at Mendeleev's table of elements, for example, what that is is it's measuring the ash of those particular minerals, not how they actually function in a living body or how they function as a live entity in nature, it's what happens when they're burnt.

And if you didn't realize this or not you are not a gas oven or you're not a microwave that is just burning these things and you're getting those same things that are on the table of elements. These nutrients in real foods are interacting with your body in a much different way. And I was surprised to learn because I wasn't taught this in my traditional university, but there are many different versions of these minerals and nutrients.

Take magnesium, for example, there isn't just one type of magnesium, there are several types of magnesium. We know that there are many different versions of vitamin D, for example, a lot of people are aware of that today. There are many different versions of vitamin C, of vitamin A. And when you get that synthetic "multivitamin" which form are you getting? Are you getting the one that you actually need? Are you getting a dynamic array of living forms of these things? Probably not.



And so this is why I'm a huge advocate for getting ourselves a green superfood blend from real wholefood-based, Earth-grown nutrient-based and it's processed at low temperatures to actually retain those nutrients.

And so for me, I started off again about 15 years ago I was experimenting with these different green blends so I've been doing this for a while and I've literally had at least a dozen different green blends and some of them taste like if you maybe find some lint in your pocket and then you take your lint and you combine it with a little bit of hay and then maybe sprinkle in some grass or some dust, it would probably taste similar to that.

I know it's kind of gross but that's kind of how they would taste, it wasn't that delicious, but I was just like, "Oh, this is super healthy so I'm down on these nasty, green formulas."

Today we've cracked the code and now we have green superfood blends processed at low temperatures and they actually taste good. And my favorite one, by far, is from Organifi. Organifi also highlights some of my all-time favorite green superfoods like Spirulina, for example.

Spirulina is the highest protein food in the world by weight, it is about 71 percent protein by weight and it's also a complete protein in a algae right or something that's other than an animal source which is really rare if we're talking about the algae or plant what we would consider to be the plant into the nonanimal kingdom to find a complete protein. So it's really, really special and that's just one of the things.

And also, I love Spirulina because it has rare compounds that are rarely seen in other foods as well, like Phycocyanin, which research has indicated that Phycocyanin has a very unique capacity to encourage your body to produce more stem cells, it's a process called stem cell genesis.

And when I was in school I was taught that your stem cells are a nonrenewable resource, like what you got is what you got, end of story, and it's just not true. There are certain nutrients, there are certain lifestyle practices that can encourage your body to actually produce and mobilize more stem cells. And stem cells become any kind of cell that your body may need. So that's really interesting. So that's just one of the superfoods in there.



Also, Chlorella is in this incredible formula in the Green Juice and Chlorella, the name Chlorella - Chlorophyll is one of the greatest sources of Chlorophyll as well. And there is actually a study that was recently published in the peer-reviewed journal Appetite looking at the power of chlorophyll, like what's contained in Chlorella.

And what they've discovered was that this Chlorophyll content can actually aid in weight loss and reduce the urge to eat hyper-palatable food, so the type of foods that actually manipulate your brain and create this desire and craving to eat more and more of those foods. The Chlorophyll that's contained in this superfood blend is able to help your brain kind of take back ownership, take back control of itself and defend itself from this urge to eat hyper-palatable foods.

That's remarkable! You don't hear about that kind of stuff in these other different formulas and products that are out there. Again, this is real food, whole-based nutrition and I dare you to try Organifi and not feel cleaner inside, not feeling like, "I just got a nice bath in my body," that's how it feels when you have it.

Pop over there, check them out, you get 20 percent off exclusive here with The Model Health Show, from Organifi, for their Green juice formula, Red Juice, everything that they carry. Pop over there, check them out, it's organifi.com/model, that's O-R-G-A-N-I-F-I.com/model and you get 20 percent off everything that they carry. Pop over there, check them out, now let's get to the Apple podcast review of the week.

iTunes Review: Another 5-star review titled "Inspired a love for help" by Super(movies)fan. "After several months of listening to this show, I finally realized that Shawn it is the author of "Sleep Smarter" a book I read my senior year of college that first turned me on how much I enjoyed learning about health leading to an eventual deliberate goal of spending 2 years learning everything I want to know about health. 2 and a half years later I'm still learning and listening."

Shawn Stevenson: Awesome, thank you so much for sharing that over on Apple podcasts, and this is inspiring for me as well because I am now starting to understand that people are finding me and getting connected to me in different ways, so reading "Sleep Smarter" and that being a leverage point for you and then realizing, "Oh, wait, that's the guy, same guy on this podcast, as well."



For me, I usually think that people are finding out about the work they were doing through the podcast, but now like people come up to me and they will say, "I follow you on Instagram, or they read "Sleep Smarter" and that's how they know about me, so I'm just so grateful that we're putting great, well-balanced material out there in the world to help to encourage a shift in the paradigm.

And so this is just super inspiring for me so thank you for sharing this over on Apple Podcasts. And listen, everybody, if you've yet to do so, please pop over to Apple Podcasts and leave a review for the show, it means so much to me. And on that note, let's get to our special guest and topic of the day.

Our guest today is a return guest, but he's bringing somebody special along with him, and our guest is Dr. David Perlmutter. And he's a board-certified neurologist and fourth time New York Times best-selling author. He also serves on the board of directors and is a Fellow of the American College of Nutrition, one of the very few folks who have that designation as an M.D. and that's a high standing person in nutrition as well.

And he received his M.D. degree from the University of Miami School of Medicine where he was awarded the Leonard G. Rowntree Research Award and serves as a member of the editorial board for the Journal of Alzheimer's disease, and has published extensively in peer-reviewed scientific journals including the archives of Neurology, neurosurgery and the Journal of Applied Nutrition. He's a true superstar in this space of health and wellness.

And today he brought along with him his son Dr. Austin Perlmutter who is a board-certified internal medicine physician and he received his medical degree from the University of Miami and completed his internal medicine residency at Oregon Health and Science University in Portland, Oregon.

His academic focus is in understanding the decision-making process and how it is influenced by internal and external factors, and how it changes our health and illness outcomes. Dr. Austin Perlmutter and Dr. David Perlmutter are the co-authors together on their forthcoming book "Brain Wash" and it is loaded with powerful insights and actionable things that we can apply as we head into this new year and far beyond. And so we're going to jump into this conversation with Dr. Austin Perlmutter and Dr. David Perlmutter.



Shawn Stevenson: Honestly I just think about when I come into the studio Michael J. Fox and Back to the Future, that scene, that's what I think about, that's the extent of my guitar knowledge.

Dr. David Perlmutter: And then the guy jumping on the phone saying, "You won't believe this shit." Right?

Shawn Stevenson: So good, I just heard it, they are trying to do a reboot of it which is something that I think they should just let go.

Dr. Austin Perlmutter: Oh yeah. What have they done, The Ghost Busters and then Charlie's Angels, they just really run out of plots is how I see it.

Dr. David Perlmutter: Man from U.N.C.L.E., Get Smart.

Shawn Stevenson: I didn't know that that was a remake, a reboot, Man from U.N.C.L.E.

Dr. David Perlmutter: And for those of us who grew up just living every moment of that, you can't, you can't. Illya Kuryakin and Napoleon Solo cannot be replaced and I'm even going to go as far as to say that there is truly only one other important Sean in my life and that is Sean Connery. There's only one James Bond in my book and I'm just a purist.

Dr. Austin Perlmutter: Pierce Brosnan was pretty good. Because the thing is you need it to be a little bit cheesy. You have to have these kinds of incredibly stupid lines, that's why I like movies like Nicholas Cage and Sean Connery when they're on Alcatraz because they have these terrible lines like, "You know that movie the rock or that song the Rocket Man- that's you," and then he launches them out on the VX gas rocket. It's awful but so good. That's also why Arnold Schwarzenegger movies are some of my favorites.

Shawn Stevenson: Yeah, California. So you've written some paradigm-shifting books on nutrition and how it relates to the brain, obviously. What prompted you to want to dive more into how our environment affects our brain and how things like relationships affect our brains? And what prompted you to want to write this book with your son?

Dr. David Perlmutter: There are a lot of answers there, that's for sure. And I think half of those Austin should answer. I would say that this book is an outgrowth of time we



spent together, Austin is a physician as well. And noodling why it is that— we do the very best we can to learn as much information as possible, we attend the conferences, we read the books, read the journal articles.

Then we try our very best to communicate that information to people who will listen, patients and other people but the breakdown occurs when people then don't do or don't take the information and make action out of it. So we needed to investigate that breakdown between information and action, why is it that even though we give out this seemingly good information, so few people really actually implement what we're talking about.

And we began exploring this whole notion of what underpins our decision making and learned that our decision-making is really a function to be simple about it of 2 important parts of the brain, the prefrontal cortex which is involved in making well-thought-through decisions and another part of the brain the amygdala which really acts very quickly, it doesn't really go through the machinations of, "Well how would the food I'm eating today affect me tomorrow/ next month," or, "My risk for cardiovascular disease is what? I want the donuts, give them to me now, end of story."

And that is something very important as it relates to making a medical recommendation, providing medical information, health-related information to people. But it really transcends that, it's about our decision-making process in the aggregate, day and night, what we decide to do and how we decide to behave.

And we realized that it's a big story that the prefrontal cortex, which we're trying to bring online, is not just involved in decision making but is really also involved in very important things like empathy and compassion, and planning for the future. And what we talk about in "Brain Wash" the new book, is that what we're seeing happening around us is people are becoming disconnected from that, we call that "disconnection syndrome."

And they're locking into this part of the brain that's fear that's us versus them day and night. And you know as well as we do that you look around that's what we're seeing. And what we were able to uncover is that this powerful thing called inflammation that you and I have talked about twice before as being a central player in what makes a good brain go bad, what threatens our heart, what threatens to cause diabetes and cancer and all these chronic conditions,



this inflammation is up close and personal, in terms of disconnecting us from that gift, from that part of the brain that lets us think about tomorrow and make our decisions based upon tomorrow, that lets me care about you, that lets me care about people who have different viewpoints, that lets me care about the planet.

And it's a big issue, especially when we consider how much it's influenced simply by our food choices, by our lack of sleep, lack of exercise, lack of relationships, how much time we spend doing our digital world and so many factors, that's what went into this book.

Shawn Stevenson: Yeah, and obviously, the landscape of what our brains are exposed to is very different today, and I feel that it's probably one of the intentional reasons you have people from 2 different generations try me in on this. And so how has this experience been, first of all just writing this book with your dad?

Dr. Austim Perlmutter: Well, unlike my father I haven't written a whole bunch of books, so I can't comment on how this is different from prior books but I can say that writing this book with my father has been one of the most meaningful experiences of my life.

And for several reasons, I like talking about science and I like talking about science after a couple of cups of coffee and so does my dad. And so when we were writing this book, sometimes remotely, but even better when we were in the same house, we would wake up, we would have our meditation, we'd have a couple of cups of coffee and then we'd dive into this amazing material.

That was really stoking my scientific drive. But then the other pieces how meaningful it is to spend time with my father, have this relationship that we're building while we're writing this book, and I've gotten to know him better which seems weird because I've obviously known him my entire life, but I've gotten to know him so much better in so many different aspects, not just the scientific basis for what it is that he talks about, but who he is as a person. So for those 2 things it's been unbelievable.

And I think the last thing I would say is this book contains so many different subjects but I really feel that this is the message that we need to be delivering and the time to do it is now, because people have become more disconnected in so many ways, even with all the things that are supposed to be bringing us



together— the social media, the abundance of all the foods that we should, in theory, be eating up because they're delicious, we've become disconnected from our bodies, from ourselves, from each other and from the world, the environment in general. So a lot of things went into the writing piece of it, but again, one of the most meaningful experiences of my life.

Shawn Stevenson: Yeah, this is awesome because what's so crazy about this is that you guys are literally doing the thing that you're encouraging in the book, which is really remarkable. But before I want to lay the foundation here because you both have said some really powerful overarching themes that we're going to get into, but I think it's important to first talk about the evolution of the human brain.

Dr. Austin Perlmutter: Sure.

Shawn Stevenson: Right, so let's start there so that we can talk about that detachment, that disconnection that's happening. So you mentioned the amygdala, you mentioned prefrontal cortex, but there's even a more primitive layer. So let's talk about that?

Dr. Austin Perlmutter: Sure. Well as we laid out in the book there are these 3 major stages in evolution for the brain. And I will say that the science now says it's not as concrete as this, but this is a really helpful way of understanding the different general functions of parts of our brains. So we talk about this R-complex this reptilian-complex that is more brain stem, that is things we don't have to think about.

And then we talk about this limbic system that is overlaid on top of it. And the limbic system is helpful, all these parts of the brain are helpful and they've worked really well for us in years gone by. The limbic system helps us to have that stress response, it's involved with memory, it enables us to react quickly to things that might provide an immediate threat to our safety.

But then we have this more recently evolved part of the brain which is notable for the prefrontal cortex. And what is the prefrontal cortex? Well if you think about it, it is the part of the brain, part of the neocortex or most recent part of the cortex that is right kind of behind your forehead. And why this is so important is this is the part of the brain that gives us our executive functions.

I know I am throwing out a lot of terms here but what's important to know is



that the prefrontal cortex is critically involved with giving us the ability to think things through. So the limbic system is more reactive; the prefrontal cortex is more reflective, it allows us to pause and consider the pros and cons of our decisions before we act on it.

And as you can imagine, if you want to be successful in the modern world, you need to be able to weigh the pros and cons and not just immediately, instinctually react to things. If we do that, if we react to things all the time we really get in trouble, that's when you have bad financial decisions, that's when you have issues in your relationships, that's when you make poor decisions when it comes to not exercising and not eating the right foods. And that tends to also be where you get into these conditions of psychopathology as well.

Shawn Stevenson: Yeah, I love that it was, I believe it was maybe Dan Gilbert who said that the human brain is a great flight simulator, the prefrontal cortex, the neocortex is a great simulator of things to come. And what's amazing about the brain is that in essence, sometimes it can't even distinguish between the real event and how you're thinking things through.

Dr. Austin Perlmutter: Sure.

Shawn Stevenson: And with that said, utilizing that part of our brain we can experience the feelings, the possibilities.

Dr. Austin Perlmutter: Absolutely.

Shawn Stevenson: But we live today in a time where we're really drawn to, we're being manipulated and I want to talk about that next, the landscape to be more reactive and not really be able to think things through. So let's talk a little bit about the new landscape.

Dr. David Perlmutter: That's a great point. And I want to just amplify something that Austin said a moment ago and it deals with making good choices, as it relates to the things he mentioned, whatever they may be, and especially those that are involved in our lifestyle issues, like the food we eat, the exercise we get or don't get, the amount of sleep we get or don't get.

Because bad decisions in those realms tend to cause us to make further bad decisions, it becomes a vicious cycle. If you eat crap the food you increase



inflammation, if you increase inflammation you further your disconnection from the prefrontal cortex, hence you'll make further bad choices, hence you'll eat more bad food and gain more weight and body fat is pro-inflammatory further antagonizing our relationship with the area you just referred to, the prefrontal cortex.

So you know, it's tough to think that what has to happen here is we've got to break that, we've got to break that cycle and jump off that carousel because it leads to not good things, it leads to bad health. And that's the challenge because as you were just jumping into, the deck is stacked against us, there are these forces and I don't mean to sound like a conspiracy theorist, but the truth is we all recognize that our eyeballs, our attention is sold to the highest bidder when we're online, for example.

The constant pop-ups, the clickbait, the fact that you watch a YouTube video and instantly there's another one queued up that you seem to interest and you find is something you're interested in. How does that happen? Well, we know how it happened. So your moment to moment awareness is absolutely being manipulated, not for your benefit, but for the benefit of people who are paying for that and gaining value from your online experience, as an example.

And unfortunately, that manipulation leads to people making bad choices in terms of the foods that they consume, their online buying habits for things that are unnecessary and even the time that they spend online, which in America averages 6 hours a day at least, in terms of being in front of a screen. 6 hours of your 24 hours is spent in front of your computer, or your smartphone, or your pad or a tablet, whatever it may be.

And the value of your time is precious, it's been said that when you're doing one thing you're not doing something else, so when you are spending 6 hours a day in front of a screen, you're not out in nature, you're not exercising, you're not connecting to other people, you're not shopping for good food or thinking about how you're going to prepare that food. And those activities are extremely valuable to reconnect to the prefrontal cortex and really offer as an antidote to this disconnection syndrome that we talk about.

Shawn Stevenson: Yeah. I think a great illustration of that disconnection between the prefrontal cortex and the limbic system, the brain stem is that story that you shared in the book with Mr. Gage.



Dr. David Perlmutter: Phineas Gage, yes.

Shawn Stevenson: And I was talking about this last night with my son because you also appropriately put in a nice illustration, a picture of it in the book, this guy has a freakin' pole going through his head and he ended up— well, you can tell the story a little more, but he ended up surviving, he straight got a pole through his brain but my oldest son talked about this with his professor.

Dr. David Perlmutter: How old is he?

Shawn Stevenson: He's 19.

Dr. David Perlmutter: Nice.

Shawn Stevenson: In school, I think it was one of his college classes.

Dr. David Perlmutter: When can we bring him on the show, wouldn't that be great?

Shawn Stevenson: That would be crazy.

Dr. David Perlmutter: Can you imagine? Father and son.

Shawn Stevenson: But I literally thought about we should probably write a book together.

Dr. David Perlmutter: Let's do it, it sounds awesome.

Shawn Stevenson: So can you just share the story for us?

Dr. David Perlmutter: Well first let me say, if he's 19, we're really going to span the generations then.

Shawn Stevenson: Absolutely. He's got a really unique perspective.

Dr. David Perlmutter: Are you in? I'm in.

Dr. Austin Perlmutter: Absolutely.

Dr. David Perlmutter: All right, we're making a commitment here. So Mr. Gage was a railroad worker and how this happened is unclear, but they were using explosives, there was a



rod in a hole and somehow there was an explosion and a steel rod went up through under his left chin and came out the top of his head, basically instantly giving him disconnection syndrome, if you will, cutting off his prefrontal cortex from other areas of the brain like the amygdala.

Pole goes through his head, he's sitting there and the doctor finally arrives after half an hour and Mr. Gage says, "I have some work for you." And at that point the doctor arrived looked at him and Mr. Gage vomited. And the doctor reports that when he vomited, he could see that his brain was pulsating through the hole. I mean it— was how do you survive something like that? Well and point of fact he did survive.

Shawn Stevenson: 13 years.

Dr. David Perlmutter: Yeah the write up of him describes how immediately this fairly affable communicative, level headed responsible coworker guy became unrestrained, became vulgar and basically acted like a child.

And let's come back to that story in just a moment, but now reflect on this idea that what the prefrontal cortex does is it represents sort of the adult in the room, it calms the amygdala, it says, "Let's just restrain ourselves for a minute before we say those things, before we tweet out something aggressive towards another person, for whatever reason." That's what the prefrontal cortex does. He had lost that, he had lost his social restraint.

And so many people know the story, it's a demonstration of what the prefrontal cortex does that many have used as an example as to what happens when it's not available. But we included it in "Brain Wash" as you know further on because as you mentioned, years later Mr. Gage decided to drive a coach in Chile and became, had become a fairly affable, interactive individual, had regained his social graces as it were.

And for us it was very important to resent that side of the story, because nobody really talks about that, because it's a great demonstration that you can reestablish, you can reform connections in your brain. The Dalai Lama said that the brain we develop reflects the life that we lead.

So in a very real sense we can choose to change the wiring in our brains, that was why we included the story of Fred Gage, no, Phineas Gage. Fred Gage



actually is a neuroscientist out here in California, who people have said has got to be related to Phineas Gage because he's doing a lot of the work on neurogenesis and neuroplasticity. So excuse that slip, but we wanted to include that what a dramatic example of a guy who has physically severed his prefrontal cortex from lower brain centers and yet recovered his graces.

Shawn Stevenson: Yeah, it's very inspiring that that connection can be reestablished even with something traumatic like that. And I think an important part of the story, when I talked about this with my son who got this story in his class, he didn't hear that second part that he was able to improve his life. I think an important part of the story though is he changes the environment as well, and so let's talk about how our environment is becoming a hindrance to that connection today?

You illustrated a story of even your experience with social media because we're a younger generation and so we remember when we didn't have it and then when it hit the scene we're like, "Oh it's this opportunity," but then it can start to take over your life.

Dr. Austin Perlmutter: Absolutely. And something I was mentioning to you earlier which I think is a really important point is your brain is going to get good at whatever it is that it's doing. So whatever you put your brain into, the environment you put your brain into, it's going to adapt to that. And if you put your brain into a stressful environment, now examples might be social media where everyone is yelling at each other or even watching the news.

We talk in our book about how the news has become increasingly negative and you can even see the conversations people are having are more polarized than ever, you either have to be in this political party or that political party and if you're not 100 percent on board and willing to yell at your neighbor, you're demonized.

So what happens when we put our brains into this environment and not to mention that supplemented by the foods that we put into our bodies that change our brains to become more inflammatory and disable good decision-making. Well, our brains become a reflection of the environment that they live in and they become geared to keep us stressed, geared to keeping us negative and geared towards things like narcissism and disconnection towards the people we're around.



And that's just not what we want. So if we want to create a brain that does well in the world and that allows us to be happy and make good decisions, we need to put in those inputs that will allow it to create the necessary neural connections to establish itself as a happy and healthy brain.

Shawn Stevenson: So in essence, our distracted brain is going to have the propensity to be more distracted.

Dr. Austin Perlmutter: Yeah, exactly, your brain is going to be a reflection of the life you live and if you constantly live distracted that's what your brain is going to be ready to do—be distracted.

Shawn Stevenson: So can you take us through, you had a really great kind of picture of what it's like today for me thinking back even 10 years ago, my routine was very different, the way that I woke up was very different. Let me take that, take a step back for that. For me 20 years ago, not 10 years ago.

I've been doing this for a while and so I kind of have good control and not even touching my phone for a certain amount of time before I get up. But for most people, and the numbers are crazy, it's like 79 percent of adults get to their phone within the first 5 minutes or 10 minutes of waking up and then for the younger generation it's even more, like 90 percent of them go to their phone first.

Dr. Austin Perlmutter: So what an important point you make. And that again is what are we doing with our time? And in a given day where are we spending our time? American adults spend around 11 hours each day interfacing with the media in one way or another, watching about 4 and a half hours of TV on a given day, a couple hours on their smartphone.

And as you alluded to, about 80 percent of American adults are going to reach for their cell phones in the first 15 minutes after waking up. So what does that morning routine look like? It's, "Okay, I'm awake, where is my phone?" And to be fair, our phones provide us an incredible source of information. We can learn about things happening across the world, we can get the weather report which I can say is helpful because yesterday in LA it was pouring, so I appreciated having that update on my phone.

Shawn Stevenson: Surprise.



Dr. Austin Perlmutter: Exactly. But you've got to ask yourself what are you getting out of that time on your phone? And so what this comes down to is just in general, what are we doing with our digital exposure? Is it beneficial to us or is it taking something away? And something that we described in the book as a mnemonic that will help people or an acronym to help people to understand how to manage their digital exposure is this test of time tool.

So what is this? The test of time is a simple tool that you can apply any time you're about to engage in digital exposure, whether that's picking up your phone going on social media, watching TV, listening to the radio, surfing the Internet. And it's really straightforward so T- time-restricted. Set a window that you are willing to go online for or watch TV for and stick to that, so that means instead of watching one show on Netflix you might go into 4 episodes, that's why you say, "Oh, I'm only going to do 30 minutes because this is a 30- minute show," and you stick to that.

I is intentional, are you intentional about going online or did you just find yourself there? And I have been a victim of this where all of the sudden I find myself on social media, I don't even remember how I got there, it's kind of like when you're driving in a car and you aren't really sure how long you've been driving, you want to make sure the last few traffic lights were green. You think so, but you're not sure, that time is kind of gone.

So it's being intentional while you're there. And that leads to M which is mindful— what happens when you're online? Well, we get our attention picked up by all sorts of clickbait, you go online, you see some exciting story about some celebrity and next thing you know you've been targeted for 18 ads, you've been made upset because you've been looking at polarized political messages and if you're mindful of it from the start you have to say, "How is this affecting me? I'm online what is happening to me, am I getting information out of this or am I actually just getting more upset?"

And then finally E- enriching, is your life being enriched by your digital exposure? And I think this might be the most important one, it's something that I know immediately after my digital exposure, was this a net benefit to me? Has my life been enriched? Have I been getting some education out of this? There's a huge difference between watching a nature, a Discovery Channel show and a few hours of reality TV.



Look, it doesn't mean you can't enjoy reality TV, but is it enriching your quality of life? And if the answer to that question is no, then that's a good indicator that perhaps you got sucked into one of these black holes and it's really just that you've been selling your attention to whoever put that program on TV. So again, the time tool is really key, it's something that I've really enjoyed and that allows me to set myself up for success every time I'm interfacing with digital media.

Shawn Stevenson: Yeah this is so good. I love that so much and it's very practical as well. And I love the note there about intentionality because as you know, it's like a slot machine in your pocket. I call it Ghost scrolling. Before you know it, you're pushing a button. And if we can talk a little bit about like what's happening in your brain when we're scrolling?

Dr. David Perlmutter: Again, as we've now said a couple of times, 2 things: number one when you're doing one thing you're not doing something else, so this is valuable time that could have been dedicated to things that are positive, not net neutral or even negative. And when you're scrolling you're looking for a place to land, you're up in the air from your last experience or whatever you looked at last time and now you need to park somewhere.

Now your brain needs to get something that's equally or greater stimulus, and that's what's happening as opposed to turning it off, putting it down and looking around. There might be a person there, there might be someone you could actually connect with and learn about.

And that kind of gets back to this prefrontal cortex idea that we talk about so extensively and that is yes, that is the center for making well-thought-through decisions, understanding good and bad, understanding a future consequence. But please, a very important take-home message here is that the prefrontal cortex is where we derive, from where we derive our empathy. What does that mean?

It means the ability, one form of empathy for me to visit with your point of view, to look at the world through your eyes, from your perspective and to experience that. And when you look around at what's going on in the world today, that isn't happening, whether it's Republicans here and Democrats there or my New York Jets and your Crazy Miami Dolphins or whatever it is.

It goes a lot deeper than that, we know that there are things between religions, between countries, etc and the amygdala fosters this "us versus them mentality" whereas the prefrontal cortex allows you to engage in reflecting from another person's point of view, to walk that mile in his or her shoes as it were. And that is exceedingly valuable these days, it's almost an existential value in terms of where we see the world going.

Empathy also translates to how we think about the planet upon which we live, that having prefrontal cortex activity allows us for example to grasp the fact that we are indeed having an impact on the health of the world, of the planet.

So we want to foster that relationship, and that's why we have a 10-day plan, looking at changing your diet, changing your sleep habits, engaging meditation, reestablishing relationships with people, getting out in nature as an example. Leveraging these things each of which emphasizes on any particular day over a 10-day plan to really give people the chance to break the cycle, regain just a modicum of better ability to make good choices, because that will feed forward and then make better choices.

Okay, let's say you start with deciding for a person who says, "I never get out in nature, I'm just going to get out in nature for 20 minutes and see what happens." If you make that a habit for a few days, that will strengthen your ability then to move forward with other aspects of the plan.

Let me just mention one thing about this getting out nature idea that is so incredibly valuable, lowers cortisol, stress hormone, lowers inflammation, enhances our ability to make better decisions. People might say, "Well I live in the middle of LA/ I live in Manhattan that's just not going to happen ."

All well and good but the research shows us that it doesn't matter if you live in a very urban environment if you can get out to a place where there are some trees, get out into a park, there are parks everywhere, and if you can't then you can buy a plant and put it in your living room, that is even beneficial and if you can't do that because you don't want to water the darn thing, well then buy a photograph or a painting of a natural environment, that has positive effects on rewiring your brain, improving your empathy, improving your decision making and helping you restructure your brain for better decisions moving forward.

Shawn Stevenson: That's so good. By the way, guys, snake plant is super-resilient, you can



accidentally forget to water for like a week or so and the snake plant keeps going. This is such good stuff and I want to talk about more of the practical application for us to improve our ability to make good decisions. And we're going to do that right after this quick break, so sit tight, we'll be right back.

I was just riding in the car with my family it was my wife and my 2 sons, Jordan who is 19 and my youngest son Braden who is 8. And Jordan was talking about how in his last year of high school he was getting that coffee hitter, like I had no idea that from time to time he would pick up a little bit of that crackbucks, Starbucks.

And he was just like, because he's not really one of those people that likes coffee necessarily, but he was just like, "Some days, you know dad, you like get up and you are just like, 'Well, not today', but then you have that coffee and you're like, 'Today, today is the day'."

And it's so funny because when I was in high school I never saw anybody drink coffee, but before Jordan got his first car, I'd drop him off at school every day and I would see the students just walking in, holding their crackbucks cups, right. It's just like it's being bred into our culture at younger and younger ages.

But the reality is, cultures throughout the world have been enjoying and utilizing coffee for centuries, right, and in childhood. And it's only recently that this mass production. mass quantity, lower quality has become so pervasive.

And so now, not only are you getting the conventional coffee, but you're also getting a lot of toxicity along with it, the mold, the pesticides, the herbicides and this is creating an atmosphere where the benefits, the potential benefits of coffee are now going down and people are just going to it because it's a source of caffeine or it's a source of sugar, right.

Because a lot of people don't even truly enjoy coffee, they love the stuff that's in it, right, the sugar and the cream and those things. But for me, and what I've been really directing people to because I was just not a fan of coffee, is let's get coffee but let's upgrade it, tremendously, by utilizing some of these powerful medicinal mushrooms along with the coffee.

And I do that through Four Sigmatic, and their incredible mushroom formulas, their mushroom coffee. Now when people hear about mushroom coffee,



medicinal mushrooms, they might come out, "Well, what kind of mushrooms are those, Shawn?"

I'm not talking about psychedelic mushrooms, I'm not talking about culinary mushrooms; I am talking about the category of medicinal mushrooms. These mushrooms have been utilized, again, literally for centuries and this one, in particular, has documentation from over 2,000 years ago with Cordyceps and now today, what is so beautiful is that we have our clinical evidence to affirm the efficacy that our ancestors knew about many, many centuries ago.

And so this was a study and this was published recently in Medicine & Science in Sports & Exercise, tested 30 healthy test subjects for 6 weeks to record the effects of Cordyceps on their performance in their sport.

And the group that added Cordyceps to their daily regiment had twice the oxygen intake of the control group and this oxygen again is essential for supplying nutrients to your cells, for preventing fatigue and buildup of lactic acid. And another study done by the same group showed that there was an overall 9 percent increase in aerobic activity, in aerobic performance from taking and utilizing Cordyceps.

Now, this is a real whole food, Earth grown nutrient sourced ingredient, this isn't a hyper stimulant which caffeine in and of itself can be. And what Four Sigmatic was able to do is to reduce the amount of caffeine and add in another natural adaptogen and supporter of your energy that really helps to create this balanced energy.

You'll never have those crashes or these strange, crazy coffee jitters that you can get when you utilize Four Sigmatic. So pop over there, check them out, get your hands on some, like yesterday. It's foursigmatic.com/model, that's F-O-U-R-S-I-G-M-A-T-I-C.com/model, you get 15 percent off the Cordyceps coffee.

The Lion's Mane coffee, if you really want to focus on that mental fortitude because the Lion's Mane mushroom, this was from the University of Malaya found that Lion's Mane is able to actually create new brain cells, that's right, it has neurogenesis capabilities, literally the creation of new brain cells, and it is found to be neuroprotective and now it's being studied for use for traumatic brain injuries as well.



Wow, like you can't get that from crackbucks, but you can get that from Four Sigmatic. Alright, so pop over there, check them out, foursigmatic.com/model for 15 percent off everything. If you're not a fan of coffee, they've got the mushroom coffees and they're just straight mushroom elixirs as well, so whether it's Cordyceps, Lion's Mane, Reishi, you can get the real thing.

Dual extracted, you're not getting this from other companies, they are doing a hot water extract and an alcohol extract to actually get all the nutrients you're looking for. Alright, so pop over there, check them out, foursigmatic.com/model. Now back to the show.

Shawn Stevenson: All right we're back and we're talking with Dr. David Perlmutter and his son, Dr. Austin Perlmutter about their new book "Brain Wash" and super fascinating stuff, super important topic, and I love the spin on the concept of brainwash, like in essence, there's this brainwash situation happening but we're kind of coming in and cleaning up the mess.

And you guys are working to help prevent a lot of problems in the future, I believe. And part of that just goes back to our experience and our exposure with what we're doing online. Our brains have evolved without this or we're talking millions of years, we've just had this for like a decade and it's already just created so much addiction.

And back to your point of in essence how it changes our brain is it reduces our ability to even have empathy because it's operating more of the parts of our brain that don't really run that way. And so practicing empathy, in essence, can help us to rewire our brains. And so if you can, just talk a little bit about some of the chemicals involved, maybe dopamine tie-in and what we can do as far as working on empathy. I want to get some specific tactics for that.

Dr. Austin Perlmutter: Sure. Well, empathy is a very popular topic, it's something that people know we need more of, it's been tied to higher levels of wellbeing, better health, people have better marital status meaning their relationships are stronger and their marriage when they have more empathy training for their partner. So we know that this is important.

But the question is where has our empathy gone? Is it going out the window, have we always had lower levels of empathy and there's research from Dr. Sarah Konrath that shows that levels of empathy in college students has dropped off

almost 50 percent in the last 3 decades. So it looks like our levels of empathy are declining. And then you have to ask, "Well, why?" Well, coming back to the idea of social media, what is that doing?

Social media, the Internet these are huge environments and I think it's really important to understand that social media doesn't always mean that it's good or bad, there are positive aspects to it. It is a window into connecting with other people. But there's this really big downside that we can get sucked into which is we create our own little bubbles where everyone is patting everyone else on the back and it becomes that "us vs them" mentality where we have our position and they have theirs, and you join a group and it's just hating on these other groups.

So that is the opposite of empathy. It kind of ties into with some research that shows that using social media in an active way, meaning participating in conversations with other people is linked to more happiness while using it in a passive way, that kind of lurking in the background and just maybe talking about how silly other people look, that's associated with lower well being.

So what is it again about social media that can be a problem, is it can allow us to separate ourselves from other people by creating a group of people who are opposed to other people's opinions. There is a way to do this where we're engaged in communication with other people and to foster empathy. To your point about how we can create empathy on a very basic level, well, there are several types of empathy.

There's emotional or affective empathy that's the one where if you were to stub your toe I would feel something there. There's cognitive empathy which is understanding that you have different opinions from me and that putting myself in your shoes basically. And then there's compassionate empathy which is feeling compassion for another person.

And most of the research in creating more empathy has actually been, strangely enough, in physicians, in medical students, and the reason is that we, as doctors, lose our empathy over time for a variety of probable reasons, but it's so easy to take back your empathy.

As an example, if I was just thinking to myself, "What are you going through today?" or, "How can I see things from your perspective?" That is an exercise in



empathy. I'm understanding the world a little bit more from your perspective. It is so easy these days to basically decide that we have all the answers and that the other party is wrong, whether that's politics, sports teams, dietary recommendations, it's easy to double down and believe we have all the answers. But the truth of the world is, it's complicated, we're all still figuring things out.

And so just that tiny bit of questioning of, "What might that other person know that I don't know, how might I be wrong and the other person be right," is what I think, could be one of the easiest interventions for empathy. I would say as one other easy intervention having a gratitude journal. Gratitude has been shown to increase levels of empathy.

And what does that mean— well, it means that every day at the end of the day or in the morning, you write down a couple of things you're grateful for. It's so easy, it can literally be my partner, it can be the fact that the sun is out today whereas yesterday it was pouring rain. It can be the fact that my shoes fit well, but fostering gratitude leads to more empathy and more empathy leads to better well being.

Shawn Stevenson: Yeah, yeah there's some great research from UC Davis looking at how gratitude affects our brain and how we relate to the world. One of the interesting things that happens is serotonin, you get a serotonin hit instead of dopamine, which is what we kind have driven more by with scrolling on social media, which for me, and this was— I don't know if you guys know about Dr. Robert Lustig, but he wrote the book "Hacking of the American Mind" and he talked about this different pathway with dopamine versus serotonin, and serotonin being more related to what we would define as happiness versus pleasure.

And then drive for more which is really kind of hacked into with social media. And so with a gratitude journal, just to get back to your point, it increases serotonin, reduces stress and also was found like crazy stuff, like it improves your ability to accomplish your goals by like 33 percent for folks who were using a gratitude journal. It just is such a practical thing and it's free and it's simple and it literally changes your status, it's very difficult to be irritated and grateful at the same time, you know what I mean?

Dr. Austin Perlmutter: That's a good point, yeah.

Dr. David Perlmutter: You know, as per Austin's point, I think that it's really valuable to consider that



when you act that way, best to, we were talking about earlier, it ultimately changes your brain to make acting that way easier and your brain becomes more facile at the action. Again, the Dalai Lama said that if you want someone to be happy, practice compassion. If you want to be happy practice compassion.

So it's self-serving to be that way, it's good for me to be that way towards you and certainly, it's good for me to be that way as well. And you know that's, as we were talking about Dr. Lustig's book, how interesting that he writes a book called "The Hacking of the American Mind" after his amazing work dealing with fat versus sugar, and talking about the damaging effects of sugar.

Because no pun intended, it all feeds into the same ultimate pathway that the hacking of our minds is distancing us from accessing the prefrontal cortex as does dietary sugar. Same thing. Dietary sugar being pro-inflammatory, inflammation is this mechanism that's keeping us away from being more connected to the prefrontal cortex i.e. fostering disconnection syndrome.

Shawn Stevenson: Yeah, so let's talk about that, this is another one of our points of emphasis or healing this connection, is the section you guys have of clear the table. So let's dive in and talk a little bit about some of the things that we can pull from that chapter.

Dr. Austin Perlmutter: Yeah, and as we have this discussion, let me say that again, there are such wonderful books that are out now and have been out for the past several years about your book, the value of sleep, how important that is and so many books about eating appropriately. And while there are nuances of diets these days ketogenic versus paleo versus this or that, by and large people are kind of saying the same things when you look at the broad strokes.

What are they saying? So you've got to cut out the sugar, you've got to cut out the refined foods and refined carbohydrates and eat more good fat and good colorful, vegetables for the fiber nurture your gut bacteria and all that. That's really the broad strokes. And what does that do? Ultimately the main play here is it reduces inflammation.

But the point I wanted to get to is that all of these wonderful books that are out there by these terrific authors are absolutely useless. Why do I say that? Because they're absolutely useless if you don't do what they're talking about. You can have your bookshelf stacked with these books and you've watched



every program, you bought every DVD, if that's still a thing, probably not, and yet you look in the mirror this is not the outcome I was wanting, it isn't happening.

So that's the disconnection between information and action, and it's between getting information and executing, executive executive, executive function, that's a key player in terms of what that prefrontal cortex does. So as we recommend, nutrition it's pretty much in line with those tenets I just mentioned.

Our goal is to reduce inflammation and to foster 2 important things—reconnection and a fertile ground for what we call neuroplasticity to allow that connection to happen. That means that in addition to reduce inflammation making sure that you're getting things like turmeric in your diet and DHA in your diet which tend to foster the ability of your brain to make better connection, to reconnect itself and with something that's not nutritional per se, physical exercise, that fosters this reconnection, this neuroplasticity that is very important.

Shawn Stevenson: For me, when I was reading the book it just really struck me and I've thought about this before but it just hit me in a new way. There are people that we love, there are people in society that we might see, there we're just like, "Why don't they get it?" Like you've got the information, why are you not able to put into action, even in our own lives sometimes, like we might know a thing, we might have this knowledge base or have like a whole mental Rolodex of things to do, like we're a human filing cabinet, yet we can't do it.

And looking at this, there actually might be some issues with your brain and how it's wired up. And for some people, maybe family members or maybe people that we love, they might have had a traumatic experience in their childhood that created some of that disconnection. So let's talk a little bit about that.

Dr. Austin Perlmutter: Sure, well you've brought up a lot of great topics right there. I think that for me it all started with my medical care with patients. And the traditional paradigm is patient comes in, they have whatever problems they have and I tell them, "Here is what I know you need to do to fix that problem."

For example, a patient comes in, who is overweight, the patient says, "I want to



lose weight." I say, "Fantastic here is what I recommend to you." And in a perfect world patient would follow through on those recommendations, lose the weight and we'd be done. It doesn't work that way. It's the information, but it's so much more. You don't only need the information, you need the ability to follow through.

And so what we see is that when doctors recommend these treatment plans, whether that's taking pills or exercising or changing diet, 50 to 80 percent of the time the patient doesn't follow through. So the paradigm that's set up is we blame patients for not having the willpower. And you've got to ask yourself, "At what point are we going to give up on this, it's not working we need a better plan."

What this book describes is I believe that plan, and it is our decisions, our reflection of our brains. Our ability to make a good choice is a reflection of how our brain is wired. We know that our outcomes, things like weight loss, eating healthy, having good relationships are related to our decisions.

We can choose to eat healthy, we can choose to exercise, but we've put all the emphasis on the willpower at the point of decision. That's you sitting at a table with an apple and a doughnut and we say, "Choose the apple." What's so hard about it, it doesn't work. So we need to take a step back and say, "What is it about the brain that sets us up to make it more likely for us to choose the apple more times?"

And the answer isn't to be over the shoulder of that person saying, "Choose that apple, I don't get why you have problems with this," it's to say, "Let's set up a brain that wants to choose the apple."

Shawn Stevenson: Yeah.

Dr. David Perlmutter: And it gets to what you were alluding to, we point fingers of people saying, "Why the heck does that person make those bad choices?" We see it all around us and I think it's so important that we stop the blame, because the deck is stacked against each and every one of us by our modern society, by hacking into our ability to make these good choices, by what happens when we're online, what happens when we're in the world and offered foods that we know are bad for us by this notion that we've got to stay up late if we want to be productive and get up really early and not get 6 hours, 7 hours of sleep because that's the



way to get ahead.

That is as you well know, that is absolutely wrong. And all of these things that conspire to disconnect us from the ability to make the right decision in the first place. So it's really a time to stop pointing fingers at people and blaming them. And we as physicians, I think are guilty, we stand guilty of leaving the office each day thinking, "Why can't that person just figure out that they can choose the apple and not choose the doughnut? What is wrong with that person?"

And now we realize it's not their fault. And we hope our readers of "Brain Wash" will recognize that they've been manipulated, their choices— their choice-making apparatus, their decision-making apparatus has been taken from them and manipulated for the benefit of others, not for their own benefit.

And we are setting about to reverse that, give people back the decision-making apparatus, the ability first to recognize this is going on and say, "Holy Toledo, look at what's happened to my ability." And next then how to correct the various choices.

Shawn Stevenson: Yeah, yeah. I saw the same thing you know working as a nutritionist for about a decade and I would have great success with some people and it would ironically keep me up at night sometimes thinking about like, "What's wrong with this person, why won't they do this, are they lying?"

And eventually, and how I really got good at what I did, and we saw success across the board, was working on, "What can I do for this person and their unique psychology?" But I didn't intentionally think about what damage might have been in their life or what had taken place, I just spent time with them and did an overall analysis, like what does their life look like, what do their routines look like, what do their relationships look like.

And you'll be able to start to kind of put together a patchwork quilt of this person's needs and their leverage points and strengths. And so I think that folks like yourself who are changing the paradigm of medicine right now and understanding that we need more connection, and as you mentioned, seeing physicians over time especially in the last few decades losing that empathy is just a matter of the way the system is set up. These are great people who want to help people, but it's set up in such a way that you don't have that actual connection time.



Dr. David Perlmutter: Yeah, I mean these people show up with a toolbox to get healthy and inside that toolbox are all of your great recommendations for nutrition and something, and your recommendations for exercise, it's all in there, but they can't open the box. So they can't even access that stuff to implement it because that decision-making part is not there and that's what we're trying to reestablish for people.

And it's truthfully not that hard if we can just get a little crack into that toolbox all of the sudden that stuff becomes feedforward, becomes, you know you adopt a little bit of exercise or a little bit of nature exposure or you pay a little bit more attention to your sleep hygiene, and suddenly you say, "Hey, this is working for me, I'm going to change my diet, I'm going to get out in nature, I am going to call somebody I've wanted to reconnect with for a couple of years.

I'm going to make a list of things that I'm grateful for," and then everything starts to build on that and you know, again, you look around at how things are right now and we sure need to make some changes, that's for sure.

Dr. Austin Perlmutter: Can I comment also on that empathy piece. We know that more physician empathy predicts better patient outcomes and better compliance. If you have a physician who demonstrates empathy, you're more likely as a patient to take your pills and to follow through on the plan.

And we don't know exactly why this is but my hypothesis is as follows: We know that when we're having good relationships with other people that increases oxytocin. What does oxytocin do? Well, it does a variety of things depending on how it's given and where it exists in the body, but in the brain, one of the roles for oxytocin is it connects the prefrontal cortex and the amygdala.

So why is that important? Well that connection between these 2 parts, which are really more part of a circuit than individual entities, it predicts people's ability to regulate their emotions, to be able to make well thought out decisions. And what disables that connection? It's stress. When we have high levels of stress in the brain, in the body, in animal studies at least they show that the neurons in the prefrontal cortex kind of wither and die, which is not a good thing.

On the other hand, and here's the crazy thing, the neurons in the amygdala, the



emotional response center, they spread out and get stronger. So when we're under chronic stress for long periods of time, this literally severs that connection between the 2 regions of the brain and oxytocin seems to strengthen it. To your point again about early life trauma, they've done studies and actually a recent study in 2018 through MIT and Penn showed that children age 4 to 7 with more life trauma, things like divorce, things like significant illness showed a decrease connection between the prefrontal cortex and the amygdala, and that predicted more aggressive type behaviors.

This is incredibly significant is that stress seems to disable our ability to make good decisions by uncoupling these 2 parts of the brain that have to be in communication for us to be able to regulate our emotions and be able to handle stress.

Shawn Stevenson: If we could I want to talk about just maybe one or 2 more points of emphasis that you guys have highlighted for how we can improve this connection again. And one of these, it's kind of, it might sound a little bit counterintuitive which is more time alone, quiet time. Let's talk a little bit about that.

Dr. David Perlmutter: Well most of what we talk about in that regard has to do with meditation and we're all aware that the amount of research with respect to mindfulness in meditation is now really robust, and even prayer.

When we try to keep our thought process focused and alleviate distraction, there are some powerful things that happen, the prefrontal cortex lights up and our connection to the prefrontal cortex and the top-down connection of the prefrontal cortex over other areas like the amygdala is enhanced as well.

So that's the value of meditation and it really is across the board over various mindfulness practices, whether it's paying attention to your breathing or reciting a mantra or being involved in deep religious prayer, it all pretty much does the same thing. There are subtle nuances of each form but it really brings the adult back into the room. And let me just talk about what that means for a moment.

When the prefrontal cortex is not in communication with the amygdala as much as it could be, it's as if the parents are saying to the teenagers who are going to invite 30 of their closest friends over to the house for the weekend, "We're going to go on a cruise, come what may enjoy." And how's that going to work



out? Well you know, the value of reconnecting of offloading this disconnection syndrome is it brings the adult back into the room to say, "There is no monster under the bed, don't get all excited, everything's okay, you can go to sleep now," calming things down.

We've all had experiences in our lives where suddenly the amygdala just lit up and by the grace of God, we were able to rein it in. In fact, I talk about one in the book, I was in Costco in line with my wife getting ready to check out, there was one more thing that she needed, she kind of does that, that's alright, and she ran off to get it in and when she brought it back it still wasn't our time to go to the cashier, so everything was cool but the guy behind her in line had a hissy fit, and I didn't mind, he was barking at me and that's cool, I don't mind that, but he started to lay into my wife and my amygdala just got plugged in.

And I felt myself losing control and approached him and somehow or another the adult came back in the room and said, "This is not a good thing to do," and I was grateful that I could rein it in. But what we recognize is many people these days have actions which we know about, which demonstrate that their amygdala is not reigned in, this activity that doesn't demonstrate the adult in the room and there's hell to pay when those things happen and we need to bring more measured activity back into our lives that we can get along better.

I think early on in our time together you said, "Well what's different about this new book?" You know, we've given up the nutritional information well maybe we should back down on our gluten, maybe sugar is not so good for us, all these things, but this is higher-order information, this is about not that gluten is bad and refined carbs are bad, but what to do with that information, how to implement and how to be measured in our responses? And you know, as we move forward in time we really, really need to think about our actions.

Shawn Stevenson: Yeah, before I let you guys go I want to talk about this because it's never happened on our show before. But we're at a studio, we have a lot of guitars laying around.

Dr. Austin Perlmutter: We sure do.

Shawn Stevenson: And you guys just picked them up and started doing your thing, jamming, making music which was just awesome, it was awesome to hear and super inspiring and I'm just like, and I'm just putting it out there, you have a father-son



book, father and son album should be next. But let's talk a little bit about and I've been wanting to do a show on this for quite some time now, and I definitely will at some point, but how does music potentially play into this as far as healing that connection in the brain?

Dr. David Perlmutter: There's a lot been written about that, there's a book out called "Your Brain on Music" and we've certainly seen the book called "The Mozart Effect" people talking about the Mozart effect in terms of the developing brain.

And you know, music really recruits a lot of different brain areas, there's the parietal lobe function that has to be integrated in terms of the dexterity and the activating engrams that are stored throughout the brain, forming chords and certainly memory is involved and for the particular song or the position of your fingers, etc, I would say what I find most appealing about it is ultimately I'm not playing the guitar, the guitar is playing me.

I close my eyes and it's a state where, I know obviously, it's coming from me, but the guitar music is changing my mood, it's taking me to a place and it's hard for me to really understand sometimes whether I'm playing it or it's actually playing me, but then when we play together and it's a wonderful communication, it is a relationship that is ethereal, it's extremely powerful, I wouldn't say it's hallucinogenic but I believe that there are things that are activated in the brain that might well be on par with that.

Shawn Stevenson: Yeah, yeah that's awesome. And this has been awesome, this has been an awesome experience. Your book is phenomenal, I think it's definitely timely and I really do, I know it's going to reach a lot of people but I hope that it can help to create that shift that we really need right now. Could you let everybody know where they can pick up the book? We're going to do, you guys got some great preorder bonuses, a book comes out about a week from now.

Dr. Austin Perlmutter: Yeah, the place to go is brainwashbook.com. And as you mentioned, we have a bunch of great preorder incentives if you feel like buying the book early, if not that's fine too. But if you buy early, we'll give you a bunch of extra great stuff.

One of the things is you'll be entered to win some prizes that I actually kind of want, but I guess I'm not eligible for them including things like Oura rings which are an amazing way of tracking your sleep in addition to a bunch of great discounts and some products that we handpicked from a variety of different



retail stores which will help you to implement the practices which we are talking about in our book. But again Brain Wash Book, one of the things that we want to keep doing is providing information to people because this is just the beginning, it's certainly not the end and so there will be blogs and videos, things that will help people to be part of this journey with us.

Shawn Stevenson: Awesome. Well, you guys, thank you so much for working together on this it's so awesome to have these different perspectives and to bring them together for one important mission. And this has just been for me a lot of fun just seeing this and it's inspiring for me to see you guys working together.

Dr. David Perlmutter: Thank you so much.

Shawn Stevenson: Is this third generation of men working in the medicine, the space of medicine right?

Dr. David Perlmutter: It is. We touched on this earlier, the expression of gratitude. So I think you need to know that we are grateful that we have been able to spend this time with you, first of all, to personally connect. We've seen each other virtually and this is a much better experience, a. And b, we're really grateful that you do what you do. I mean, your heart is in the right place. How many people are going to implement what it is you talk about? If it's 1 tenth of one percent then it's a job well done. So thanks.

Shawn Stevenson: Awesome, thank you, I receive that, you guys are awesome. Again, so the website?

Dr. Austin Perlmutter: It's brainwashbook.com.

Shawn Stevenson: Brainwashbook.com. Thank you guys for coming and hang out with me.

Dr. Austin Perlmutter: Thank you for having us.

Shawn Stevenson: Everybody thank you so much for tuning into the show today. I hope you got a lot of value out of this, truly, truly an important book to have in your collection "Brain Wash," pick it up, preorder the book right now, get those bonuses, why would you not get the bonuses?

Listen, this is, I'm not just saying this, but this is a really important book because



our connection to social media and our technology is only going to become greater, it's only going to become a greater draw and desire for us, and it's just being able to utilize these things but not have them take advantage of us or utilize us. Much like a positive experience of him playing the guitar as the guitar playing him, this happens with social media and we don't realize and this can take us down a negative path, and we're like ghost riding our phones like I mentioned, ghost scrolling.

And so just really preparing ourselves right now and starting to make a shift in these numbers. If you can, just give yourself a little bit of some free time when you get up in the morning, just think about your routine, 10, 20 years ago when you got up, what did you do? Maybe you got up and read the paper and got a cup of coffee or just spent some time going for a walk.

I don't know what you used to do, but just think about how things have changed and how our phones can potentially be taking control of our days, rather than we being intentional as one of the things we talked about in that test of time which is a really great acronym, intentional about accomplishing our goals and not getting drawn into other people's agenda.

So if you guys enjoyed the show, please share this out on social media and of course, you can tag me and let me know what you thought about the episode. I appreciate you so very much. And we've got some powerhouse, epic stuff coming your way very soon so make sure to stay tuned. Take care, have an amazing day, and I'll talk with you soon.

And for more after the show, make sure to head over to themodelhealthshow.com, that's where you can find all of the show notes, you can find transcriptions, videos for each episode, and if you've got a comment you can leave me a comment there as well.

And please, make sure to head over to iTunes and leave us a rating to let everybody know that the show is awesome, and I appreciate that so much. And take care, I promise to keep giving you more powerful, empowering, great content to help you transform your life. Thanks for tuning in.