



**THE MODEL  
HEALTH  
SHOW**

**EPISODE 441**

**Our Growing  
Susceptibility To  
Viruses & The Stress-  
Immune System Link**

**With Guest Dr. Austin Perlmutter**

**You are now listening to The Model Health Show with Shawn Stevenson. For more, visit [themodelhealthshow.com](http://themodelhealthshow.com).**

**Shawn Stevenson:** Welcome to The Model Health Show. This is fitness and nutrition expert, Shawn Stevenson, and I'm so grateful for you tuning in with me today. We've got a very special episode. Very timely episode, we're talking about some of the psychological ramifications that we're dealing with right now in response to COVID-19. And this is a conversation that needs to be had because there are many points of emphasis that are not really being examined here. We're experiencing a very challenging time in the landscape overall of human health, not only in response to an infectious disease, but the ramifications of how we've handled the disease as a society, so the long-term effects of social isolation, we're now beginning to see and to put a spotlight on some of the fallout from that, the skyrocketing rates of unemployment, required shutdowns of millions of businesses, schools across the country being required to shut their doors, skyrocketing rates of depression, anxiety, domestic abuse, child abuse, substance abuse, and suicide, these things have all just been climbing higher and higher, and all of this is existing within the container of the sickest, most chronically disease-stricken society in human history, and we're working right now to put a spotlight on that, to shine a light on it, to get it out of the darkness, so we can get face-to-face with it.

So we can actually change it. So the question is in that... And right now, we're getting a chance to look at what's missing here, what are we not seeing, because this has been going on for decades now, we've seen it happening, we've seen in the numbers continuing to climb, but yet we've never stopped to address the underlying issue. Which right now, I've shared these numbers and I'm going to continue to share these numbers because I think they're important because number one is difficult for us to wrap our minds around the severity, but also we can have a tendency to be jaded by the numbers. And not realize that you know what, this is not okay. And right now, we have over 200 million Americans right now who are overweight or obese, that is a absolutely absurd number, 200 million... Over 200 million folks, we have about 115 million people here in the United States who are regularly sleep-deprived, and we know the ramifications in the fallout from that. We're just not the best version of ourselves when we're sleep-deprived, and this isn't just hearsay,

this isn't just a guesstimation, this is a fact.

And now we have brain imaging, for example, done at UC Berkeley, looking at what happens in the sleep-deprived brain, and within a short amount of time of being sleep-deprived, we have a dramatic decrease in the pre-frontal cortex, this is the part of your brain responsible for social control for distinguishing between right and wrong for decision-making for healthy responses, are you seeing a lot of unhealthy responses out there right now? Are you seeing a lack of social control out there right now? Yes, you are. I know you are... We're all seeing it. Unless we're doing it, when we're doing it is very difficult to see it, you know, it's easy to see in other people. Of course, you know point a finger, but just understanding, we are already set up as a society, we're sleep-deprived, we're unhealthy, and wondering why we're having such a poor time managing our emotions and our responses and our connection. So, but coupled with that, in this study, they also found that there was a heightened activity, significantly heightened activity, in the more primitive parts of the brain, namely in the amygdala. In the amygdala, we call it an amygdala hijack.

The amygdala is very much concerned about survival of self, right, is much more emotionally driven part of the brain, and so when we start to operate predominantly on emotion and not being able to marry that with the more rational decision making of the prefrontal cortex, that's what whole-brain patterning is the whole brain function that starts to dissolve and we are no longer what it really means to be human, and that's what we need more than ever, we need more humanity, we need more connection, we need more understanding of how this stuff works and creating the conditions for these things to work. If we're not doing the basics, why are we even talking about throwing another drug at a symptom? Instead of addressing the underlying problem. But this is what we have the opportunity to do right now. Here in the state of California, I just moved here. I'm from the mid-west up from STL. I just got here and this wants to pop off really? Oh man, such a wild time. But I know that it is for this purpose, I'm here because I can get face-to-face with it. I can see we have the highest rate of infection here in the state of California, and ironically, there is a massive compliance, of course, with all the parameters, a lot of people see the news headlines and they just like, "What is the people in California doing?"

If you step out my door right now, you will see 90... At least 90% of people outside in the neighborhood walking, wearing their mask. And it's been like this since April, it's been like this since April May. When the mandate started, it's been this way, nothing's changed. People have been staying away, my son, my youngest son, Braden, he has a friend that he plays online with, this young man, nine years old, has not seen another child since April, he's not seen another child, been around another child until a couple of weeks ago, and the kid basically was holding up his own demonstration, he was protesting and wanting to be able to see my son and his best friend next door, Avery as well, and so the parents relented to... The kids can wear a mask and just social distance their way, my son really wants to see them, right, that's what the parents were articulating to us because their son has not seen anybody. Are the measures we're taking appropriate? We have not taken a broad and Meta perspective and that's what we're going to talk about today, what are the fallout? What are the long-term ramifications that this can have in this child's life in such a crucial time in his development? So many lives and aspects have not been taken into consideration.

But it's not too late. We can do this, we can change it. We can turn it around. But like I said, I just got here, but I want to point this out because apparently... So we got the highest rate of infections here at CA, but apparently, championships are infectious too the Dodgers just clinched World Series title. The Lakers did it. I think it's only happened maybe like what, 15, 20 times in history with two major sports teams in the same city winning a title in the same year, so it's pretty cool, but I just... I just want to point this out because again, I'm from St. Louis, my last year in St. Louis, our St. Louis Blues hockey team won a championship as well, never did it before, but when I'm just saying they won and then I moved to here, Lakers won Dodgers won. What is the consistency here? What is the common denominator? I'm not saying it's me, but it might be me, I might be walking talking lucky rabbit's foot, I don't know. But I'm trying to figure it out. I hopefully I can bring some luck and some joy to you today with this really important and vital conversation, now again, at the core of it still we have to remember and reiterate this fact over and over again, that's one of the biggest issues we're dealing with is an epidemic of chronic lifestyle-related diseases being the number one causative agent, the



number one cause of susceptibility to severe reactions from SARS-CoV-2 and really all manner of Infectious Diseases, yet we're not addressing this underlying issue.

In a study published in the Journal of the American Medical Association uncovered that hypertension is one of the top three pre-existing conditions leading to severe reaction from SARS-COV2 infections, and another study published in the Journal of the American Medical Association, JAMA, also noted that poor diet is likely the number one contributing factor to our nation's skyrocketing blood pressure, are we going to do something about this? We'll throw another drug at? It is what we do. Haven't solved the problem throw a drug at it, we can change this. It's already confirmed this is what... We've known this, we've known this for years now, that our nutrition matters, our food matters, it's the greatest implement just by the sheer amount of food that we take into our bodies has the most massive impact on all manner of our biological functioning. Everything about us. And so understanding that our nutrition specifically noted in this study poor diet, is likely the number one contributing factor to all of our major chronic diseases, but most notably right here, our skyrocketing blood pressure, clearly, we want to make some shifts away from the insane amount of processed foods, that our society eats, that's contributing to this growing problem clearly, but there are also so many wonderful foods that are clinically proven to help normalize blood pressure as well.

We have access to these things. Now we have data to affirm what our ancestors knew for centuries, for instance, a double-blind placebo-controlled study published in the Journal Clinical and Experimental hypertension, found that the chlorophyll-rich algae Chlorella was able to help normalize high blood pressure and reduce rates of hypertension. The study authors stated, "Chlorella is a beneficial dietary supplement for prevention of the development of hypertension." Chlorella has also been clinically proven to support weight loss, for example, a 16-week study published in the Journal of Medicinal foods reveal that Chlorella intake resulted in noticeable reductions in body fat percentage, serum total cholesterol, and fasting blood glucose levels. This exists, and the question is, are we going to take advantage of this? Now, Chlorella isn't necessarily an easy on-ramp food to give people to give our children, just to give the average Joe, but there are ways now, look I've



been using Chlorella on and off for a decade and a half, easy, probably longer. And I'm cool with having the green... They got the green smile for a little bit, but most people aren't. And the beautiful part is now we have wonderful blends and companies making these green drinks and the very best one, and you should know this by now, is from Organifi, one of their main ingredients is Chlorella.

And it actually tastes amazing, kids love... Like my... I give this to my kids. My oldest son, Jordan has it just about every day. It's one of those things where we're taking something that has all of these benefits, a big part of this is one that I want to highlight here with Organifi is that its cold temperature process to retain more of the nutrition that's in the food. It tastes good, guys. I was taking Green blends. Again, a decade and a half ago or longer, maybe 16, 17 years ago. I'm telling you, the taste is so bad and you would have to just put so much other stuff with it just to tolerate the nasty-ness or trying to get all these Nutrition components in your body, but now we've got wonderful products like Organifi's green juice. So highly recommend it, if you're not utilizing the green juice yet... Seriously, you need to get it in your home and start using it. It's amazing. So go to [organifi.com/model](http://organifi.com/model), and you also get 20% off, you get 20% off the green juice formula, the red juice formula, which is amazing, and everything else, they carry. It's incredible. So it's [organifi.com/model](http://organifi.com/model). That's O-R-G-A-N-I-F-I.com/model 20% off. And now, this is the Apple Podcast review of the week.

**iTunes Review:**

Another five-star review titled “truly inspirational” by Fnamlani. “Shawn you have a gift! Your words inspire. Just binge listening to your podcasts and loving it. Thank you!”

**Shawn Stevenson:**

Awesome, thank you so much for leaving that review over on Apple Podcast, I appreciate it so much, and if you have yet to do so, please pop over to Apple Podcast, leave a review for the model health show. It means so very much. And on that note, let's get to our special guest and topic of the day. Our guest today is Austin Perlmutter, MD, and he's a board-certified internal medicine physician and New York Times best-selling author. 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

focus is on helping people to free their bodies and brains from damaging patterns and circuits using interdisciplinary research in applied neuroscience. He's a co-author of *Brainwash* and the host of the podcast, *Get The Stuck Out*, and a frequent contributor to *Psychology Today*.

And I'd like to welcome back and jump into this conversation with my friend, Dr. Austin Perlmutter. Dr. Austin Perlmutter, welcome back to the show. I saw you actually just before COVID became a household name, the world has been very different since then, and I'm grateful to have you all man. What have you been up to?

**Dr. Austin Perlmutter:** Yeah, a lot of things is... First of all, great to be back... Good to have these conversations and just been so appreciative of the information you're putting out right now because conversations are key and questioning is key more now than ever, so as it relates to what I've been up to, it's trying to question the things... All the things. How do we rethink health from the ground up? And then how do we do that in the context of what's going on in the world right now? I've spent I would say most of my personal research time looking into mental health, because I think that that is at the core of everything, it is what informs the way that we make decisions. It is at the root of so much chronic disease right now, and it's certainly a bigger problem now in the time of COVID than anything, and so then looking at what is it that influences mental health, our immune system, our gut health, and how all of that funnels into the brain, changes our perception of reality, and getting into some of those questions about what is it that makes us who we are and how do we change that if we want to, but definitely a lot of emphasis in the last several months on immunity, how does the immune system change our brain function, change our mood, change our physical health, and again, the way we experience the world, so plenty to keep me occupied.

**Shawn Stevenson:** Yeah, I would say so man and I'm so grateful that you're around doing this work I've been staying tuned to you on Instagram just such insightful posts, and also one of the reasons I reached out was your recent article that we'll talk about, of course, as well, in medium, and if you could, I'd love for you to start by talking about the nature of opportunistic infections themselves, and what is your research shown you over the past few months?

**Dr. Austin Perlmutter:** Yeah. So an opportunistic infection is... It's kind of a sciencey medical term, it's something we use in the hospital or in the clinic for people who had clearly damaged immune systems or suppressed immune systems, because what you see is that when you have an immune system that can't fight off bacteria, fungi, viruses, you would get infections that you wouldn't have gotten if you had a healthy immune system, and so that might mean that because you were taking steroids or because you had a chronic infection, that you were not able to fight off something like the common cold, the way that the person might otherwise, or that you might get a bacterial pneumonia that most people would be able to fight off with no problem.

The idea is it's an opportunistic infection because it takes advantage of this opportunity, which is your defenses are down, and I think that it's so important to consider this context of what's going on with COVID right now, because if you consider kind of the health of Americans or the health of the world. And whether that's optimized, the answer is a clear No, you've talked about this on your podcast recently, We're just not healthy these days, Americans especially, most Americans have chronic preventable diseases, most Americans are overweight or obese.

And why that matters is because these are conditions that are associated with compromised immune function, we should definitely get into this later, the idea that immune function is not just about defending against a bug, a microbe, but it's about the way that your weight is, it's about your heart health, it's about your brain health, and so what I was talking about in this medium piece is that if you consider the fact that the vast majority of people who are suffering from severe complications of the coronavirus or the disease we call COVID are people with comorbidities, chronic diseases, that you could really look at this as a virus that took advantage of our pre-existing poor immune function as represented by these chronic health conditions, so it is an opportunistic infection because it is taking advantage of, it is exploiting our weakness, which is our previously existing damaged immune function.



**Shawn Stevenson:**

Yeah. That's so powerful. And one of the things that has come out, and I've talked about multiple times, of course, and I saw this coming because of the data that we had from Italy, but the CDC, of course, recently reported that only 6% of folks who have passed away via SARS-CoV-2 didn't have one of these underlying pre-existing conditions and or comorbidities, additional causes of death, just 6%. And so for some reason, our systemic culture around medicine and around health is not talking about the fact like, Listen, we were set up to fail here, this is an opportunity to see what our weaknesses, and I love the fact that you pointed this out in this article, in such an articulate way, let's do something about this because the truth is... And I just saw a movie preview for a movie that is talking about SARS, they're talking about COVID-23, this is a new movie coming soon, I just saw the preview yesterday, and as I'm watching the preview... And there's some major stars in the movie... As I'm watching the preview, I'm like too soon, too soon... And just all of the changes that happen in our society as a result of these kind of infectious disease just continue to come one after the other, after the other, and thus not getting the point, if we can get our systems healthier and more resilient, we're designed to evolve beyond and even with viruses and bacteria.

So I love that you're pointing this out and if you could, can you talk a little bit about... Just go a little bit more in-depth in some of these kind of underlying susceptibilities because it's not just the stuff that we see on the surface.

**Dr. Austin Perlmutter:**

Yeah, and I think you pointed out real quick, this recent reveal, I guess you could call it from the CDC, that talks about the fact that the vast majority of people who have died of COVID, died with COVID in addition to other conditions. And I actually really like the way that you described it in a recent post, because I think that that statistic has been misinterpreted many times and in both directions, the point isn't that COVID didn't contribute to death, it's just that there were other things that set the stage for it, and that were probably major contributors as well. If you are somebody with diabetes, with heart disease, with hypertension, who is overweight, you're at increased risk of dying in general, and so it's almost as though you had the deck stacked against you, and nowhere comes Coronavirus and it just pushes you off the edge. Again, it doesn't mean that Coronavirus wasn't a contributor. I think



that the way that people interpret this is not in the context of how the data is actually presented, which is, these are data that come from death certificates. And so when I'm in the hospital and I fill out a death certificate, I have to talk about everything that contributed to that cause of death.

If at the end of the day they died of respiratory failure, it might be their history of smoking, it might be their history of COPD, it might be the acute pneumonia that they caught on top of the COPD and the smoking, that eventually led to this respiratory failure, but it's not like I'll just list respiratory failure and call it a day. So again, important to understand the context here. But getting back to the earlier point about immunity and how we need to rethink immunity, let's think about Coronavirus in general, this is a virus that has a tropism or a preference for lung tissue, so it goes in, it sits in the lungs, it damages the lung tissue, it makes it hard for us to ventilate, it also seems to have effects on other parts of the body, but the question is, how do we respond to this?

And the way that we respond to a virus or to any infection is through our immune system, and our immune system has multiple different components. So if you're thinking about, what do you want to do to prepare for COVID, or let's say, what do you want to do right now to keep yourself safe. The conversation unfortunately is all about prevention and exposure, which I think is an important part of the conversation. If you are somebody, especially who has a high risk of having problems from this, so if you're an elderly person, if you have pre-existing diseases, you don't want to go and inoculate yourself with this bug that might push you over the edge. That's a bad plan. So that's why there's conversation about not going out into big public places and wearing masks and the like.

But the other critical and hugely missed part of the conversation is why are we so vulnerable to this bug? What can we do to improve our resilience? And that's where all of these things that you've been talking about for so many years come into play, people don't want to talk about that. It's not fun, people want a quick fix, whatever that might be, and vaccination conversations are interesting. I think that is an important part of the conversation, but it doesn't help us when we get the next version of this bug. It doesn't help us when we



have a different infection, the question is, why are we so vulnerable to this bug, and that's I think a function of the fact that we have pre-existing poor health because of the poor decisions that we've been making as Americans and as a planet really over the last 100 or so years, and the connection that I think people need to understand here is, if you have heart disease, or you have diabetes, or you have cognitive issues, even if you have depression, that is telling you about your immune function. Again, heart disease, diabetes, cognitive decline, depression, those reflect underlying immune dysfunction.

So now again, we come back to this conversation about all of these people in the United States who have blood pressure issues or blood sugar issues or weight issues or mood issues, these are telling us that there are changes in our immune system, and those are the exact changes that may predispose us to be at higher risk of complications for COVID. So it's a question then of what can we do to improve our immune function, not just our immune function as it relates to defending us against bugs like Coronavirus, but our immune function as it relates to protecting us and defending against chronic diseases, it's a much bigger conversation, I think, so much more empowering because now we have all of these things we can be doing instead of just trying to prevent ourselves from breathing in this virus to increase our immune resilience.

**Shawn Stevenson:**

Yeah, yeah, I love that so much. And thank you for pointing that out. Obviously, there's a context where prevention and exposure is appropriate, and the underlying issue, however, is that unless we are transplanted onto an island somewhere, but even then, I've shared some statistics that approximately every 3 x 3 foot space on the planet, about a billion virus particles are just raining down every day from the atmosphere, you can't run and hide from this for very long, we have to focus on getting the underlying issue covered, and what I want to talk about a little bit more is the nature of these opportunistic bacteria, viruses, fungi. What I want people to understand right off the bat is that they're called opportunistic for a reason, we all carry opportunistic viruses with us and bacteria with us all the time, and so we have this kind of perception of "catching a bug," which is possible, but a lot of times when we're doing the fundamental things, we know that suppress our immune system, we're sleep-deprived, we are malnourished, we're over-stressed, we're not moving, these things we're carrying around with us

already can get on top of us and take us down.

**Dr. Austin Perlmutter:** Yeah.

**Shawn Stevenson:** And you pointed this out in a myriad of ways, and so I wanted to highlight that and also I wrote this down too. In that study from the CDC, this was so fascinating, and I want you to talk about this a little bit more. The biggest comorbidity was actually influenza and pneumonia was like right there at the top tier, of course, diabetes on the list, hypertension, but it was like 100,000 folks also had pneumonia, which could have been a bacteria infection, which could have been a different virus, it wasn't specifically identified. And influenza, which has been brushed under the rug, which these are all, again, these are opportunistic things that happen when your immune systems compromised... Is that right?

**Dr. Austin Perlmutter:** Yeah, so two points about that, first for the pneumonia piece. Pneumonia is just kind of a diagnosis we get when we see certain things on the X-ray that correlate with symptoms, it's very non-specific, you could have pneumonia from fungal infection or from a viral infection or from a bacterial infection, and really unless you go in there, you take a sample, you're never going to be that sure, and even then you can get faulty results. So pneumonia itself is really not all that specific. Influenza on the other hand is still that huge deal in causing morbidity and mortality, especially for people who tend to be either elderly or with pre-existing conditions to start with, and so in the hospital, you see every season, every flu season, which tends to be winter, lots of people coming in with kind of exacerbations of their previously existing conditions, whether that's heart disease, or even something like diabetes because they caught this bug, which has then taken the throttle on their prior problems and pushed it forward. So if you already had issues with breathing because you had COPD and now you got influenza, that's a big problem versus if you're a healthy person and you catch this bug, it may not be that big of a deal, it may knock you down for a couple of days, but you know you have a healthier substrate, so you have more resilience to it.

What I think is also very fascinating is you can see based on people's kind of nutritional status and also based on these lifestyle modification type things you describe, so sleep and stress modification, exercise that that changes people's risk for having complications for things like influenza, and you can even see this for things like social connection, which is a challenging topic right now, but that social connection has this protective effect on the way that we encounter and deal with viruses and how they compromise our health. You would think that people with more social connections would have a higher risk of having problems with something like a cold, but it's actually the opposite. So there are all these molecular mechanisms at play below the surface that relate to our immune system, but that also relate to our cognition and the way we make choices that I think are so important to understand as it relates to trying to prevent complications from something like influenza, COVID are really again all of these chronic diseases that are then still the major causes of death worldwide.

**Shawn Stevenson:**

Yeah, and that's one of the most fascinating things that come from this for me personally, is the reiteration like just being in this field so long, I've seen this to be an issue, but never like this before, where I don't think people have ever had such a close association with death before, and also understanding that so many people lose their lives from things that we just turn a blind eye too, like every year, tens of thousands of people die from influenza, we thought we had that figured out, it's been like 80 years, they've been having vaccines that come out for this, why are we still dealing with it, it's just because it hasn't been sensationalized. COVID-19 has a great wave of interest, which rightfully so. But at the same time, I think we're getting a better association in understanding that, even though we've continued to take the same approach with addressing some of these issues, and we need to take a much bigger kind of Meta perspective.

And this is what I love about your work. Because all of these pieces matter, whether we're talking about vaccinations, whether we're talking about medications, kind of conventional treatments, and also the basic things that we do know, one of the big arguments with COVID-19 and the way that we've handled it is that we don't know much about it, and negating the things that we do know about human health and physiology and biology that keep us more resilient and give us the best chance against anything, all those things

have been ignored, and I think it's just within the container of the way that our system is structured right now, but the great news is that when it's so rattled like this, I think it's a great opportunity to change it, and if you could, I love for you to share your perspective. Would you deduce that we're possibly in an even more vulnerable state right now to all manner of infectious and chronic diseases since the quarantine began with the lack of movement, lack of community, erratic sleep patterns, increased screen time, lack of sunlight, lack of community and human connection, all of these things have changed, so many dramatic things. So would you think that... Where do you think we're at right now as a society?

**Dr. Austin Perlmutter:** Yeah, not in a great spot. Let me comment real quick on your point about influenza, one of the things that makes influenza so complicated is because it has the changes in the actual structure, which makes it very, very quick to change, that means that it's very hard to come up with good vaccinations for influenza, it doesn't mean they're not good, it just means they're not great. But to your second point here as it relates to our vulnerability, it's an unfortunate eye-opening experience right now, especially for me, because I think through all of this reading I've been doing on what are the major, I guess, contributors to good health, and to your point, this is what people don't want to or forget to look at is that we have so much great information right now on what we can do to improve our health and to develop resilience to infections, to chronic diseases is getting better sleep. It's exercising a bit, it's eating healthy food, those are answers that are simple, but are not fun, they're not one little quick fix, then you're back out on your feet and can go back to eating your unhealthy food and not worry about anything.

So what about right now, what's happening in the world today, as most people listening to this, watching this probably already understand, we are experiencing this twin pandemic of mental health, that is negative mental health across the world, and so what we're seeing is that rates of stress for people experiencing high levels of stress have increased. There's good evidence for this in United States. It's also paralleled by other countries, we're seeing that rates of anxiety and depression have gone up, and these are in studies across the world, but also in the United States, and we're seeing that rates of loneliness are going up, again not all that surprising, given that people are increasingly socially isolated. So what does that mean? Objectively,



it's not a good thing, nobody wants to feel depressed, anxious, stressed, or lonely, but what I think is so important for us to understand is that there are kind of these fundamental connections between our mood and our mental state and our immune function. There's a field of research called Psycho-Neuro-Immunology, which is a mouthful, but what it talks about is that there are these networks, these networks that connect our thoughts, our mind, if you will, with our immune system, and so this has been described as one of the central mechanisms that will connect something like poor mental health with something like Coronavirus.

And so there was a recent paper that was published though this year, and it talked about this elevated inflammation that you can see in Coronavirus, something called the cytokine storm, which is usually seen towards the end of, let's say somebody whose infection with Coronavirus if it's going to be a severe infection, it actually has a strong overlap with people not doing that well and even dying because of the infection. Cytokine storm is basically when you have this really big increase in inflammation in the body, it's overwhelming. And it can lead to death. So the idea is if Coronavirus creates this inflammation in the body, that that might predispose people to worse mental health because we now know, again through the Psycho-Neuro-Immunology field, that there is a strong connection between inflammation and worse mental health, the creation of inflammation in the body, in the bloodstream and then in the brain is strongly correlated with symptoms of depression, and this has been seen in multiple meta-analyses over the years, but what they've now seen is that even in just acute inflammation, so if you are going to induce inflammation in somebody by giving them an injection of a piece of a bacteria that that seems to cause symptoms of depression and even of a loneliness.

So the paper that I was mentioning basically says that there's a concern that inflammation as a result of Coronavirus may be worsening people's mental health, but I think that while that's interesting, we should be focused on the other way around, that we should be focused on what is going to happen as a result of our pre-existing poor health, as a result of our poor mental health, as a result of our poor diets, not getting enough sleep, not exercising, because these are all things that have effects on our immune system and for the worse, and by and large, these are the things that increase chronic

inflammation. Chronic inflammation is the type of thing that may predispose us to worse outcomes if and when we contract Coronavirus.

So the concern that I have is that we're seeing, you think, okay, so maybe seven, eight million people across the world at the time of this recording have what we call coronavirus... Who we would say they have been diagnosed with Coronavirus. Billions of people across the world at this very moment are experiencing worse mental health as a result of Coronavirus, they're experiencing the stress, the anxiety, the depression, and so that is a much bigger cohort of people, and if all of these people are taking a negative hit to their immune system right now, not only is that going to be concerning if and when again, they are exposed to Coronavirus.

But that is going to increase risk for all of these other conditions that in the long run are much more likely to take us out of the game both mentally and eventually physically, perhaps even killing us earlier, shortening our lifespan, so it's something really important for people to be considering right now as it relates to these types of interventions, and I think even lockdown measures, I'm not trying to get into the conversation as to whether a lockdown is or isn't a good thing, but I think we have to be conscious of the fact that there are these costs associated with the large-scale mental health implications, physical health implications, we've seen people increasingly turning towards comfort foods that we know are high in refined carbohydrates that are bad for our health because they predispose us to the exact conditions that are going to predispose us to worse outcomes from Coronavirus and dying of other causes.

It's a really kind of complex web, but I think it is so important to understand that many of the things we are doing right now in order to prevent Coronavirus from becoming a bigger problem may actually predispose us to more problems down the line.

**Shawn Stevenson:**

So... That's so important. So profound. And that's the thing that... It's just like when all of the decisions were made initially, it's clear at this point that we weren't really analyzing all of the different aspects of this, all the different



sides of this, and the just... Cost, basic cost-benefit analysis. And we're looking at increasing rates of obviously, this is on the tip of everybody's tongue right now, but increasing rates of depression, anxiety, suicide, but also...

**Dr. Austin Perlmutter:** Drug use.

**Shawn Stevenson:** Drug use, substance abuse, physical abuse, child abuse, all of these costs are imminent when we have situations like this, and I would think that at this point in human evolution, we would have the capacity to get together with people in all sides, like Let's get somebody a child expert in here and get their perspective on this, what should we do? Let's get somebody in here that is an expert in depression and see what could be the potential fallout and have a conversation because what we've done, I think as society is have this very cookie-cutter approach, and we tend to do that with our treatments and a lot of times, as you kind of framing up for us, we could be potentially causing a lot more harm with the treatment, however, this is one of those situations, again, where this is a new experience for us, so we don't know, but I want to lean back into the fact of there are several things that we do know that still have not been implemented widely in conventional medicine.

**Dr. Austin Perlmutter:** I think that is the core of all of this, which is... So Coronavirus is a thing right now, it'll probably still be a major topic of conversation a year from now, five, 10 years, I don't know, but the underlying problems in the healthcare industry, and I'll call it that because that's really the issue, is how are we incentivizing? But what is it that we're optimizing for here, and the answer is Not health, you know this, you've said this, it's not... Our healthcare system is not optimized for health, it is optimized for continuing to promote this system, which is, it's really best incentivized for people to do high-cost procedures and to provide medications that you have to be on for the rest of your life. One of my biggest challenges in my conventional medical training is that I got... All of my efforts were focused on slowing the rate of decline, so it was meaning you would come in, you would have this, that and the other, I would say, Look, you can change your diet, you can start exercising, you can do this mindfulness technique to lower stress, and the patient would say, Oh yeah, that sounds great.

And they wouldn't do it, and sure enough, in a year, maybe two years, they would have full-blown diabetes or hypertension, and then I would put them on a medication that they would probably take for the rest of their lives, and that's just the situation is... Things are going to get bad, but maybe we can make them not quite as bad and we can slow the rate at which you get worse, and the truth is, we know the solutions to preventing these conditions, it is not all that complicated, but there's no real profit in it, eating healthy food, I know that you've talked about this, there aren't these major studies to talk about the benefits of eating a balanced diet because there's no financial reward in it, if you're going to be a company, you're not going to monetize a certain combination of phytonutrients unless you can put into a capsule, so we know from more observational, not interventional type studies that people who eat a balanced diet, a Mediterranean diet or a diet that's lower in processed food, do better across basically every aspect of their health, that people who get enough sleep do better across basically every aspect of their health that people who exercise more do better, and yet if I was to take that and tell a patient that here's what they need to do, they would say, Of course, that's the case.

No one's thinking that they're out there eating donuts and drinking a couple of two-liter bottles worth of whatever soft drink, and that's good for their health. The issue is that it's become the status quo, it's the default option, and so our system, our healthcare system being part of this problem, but I think the larger American system being the bigger part of this problem, it's just not designed to optimize for people's health, it's designed for people to continue to consume things that get them hooked on those products, that make people feel crummy about their lives so that they need to go out and buy something to get rid of that kind of internal psychological pain. And there's very little, if any, emphasis on getting to the root causes of why people are in so much pain, I would say, because it's this kind of psychic pain, psychological state of chronic stress, chronic anxiety and chronic depression, that I think drive us to engage in these behaviors that are very destructive, we are being fed solutions that make the problems worse, and until we can see that until we can parse out what's actually going on in our brains that is leading us down these paths of recurrent poor choices that are benefiting others, pocketbooks to be frank about it, we're going to continue chasing these quick fixes that

are only making our health and our mental health worse.

**Shawn Stevenson:** Man this just... As soon as you said that, it just brought up the revelation and the truth that our poor choices tend to have a domino effect as well, not just on ourselves, but on other people, you know our children, our parents. Right.

**Dr. Austin Perlmutter:** Yeah, so there's inter-generational effects, and it is something that you can get to on a molecular level when you talk about the stress pathways when you talk about the immunological pathways when you talk about the microbiome, but what you can see is that a mothers' poor choices and I'm not trying to blame mothers here because fathers' poor choices, grandmothers, grandfathers, that these things get programmed into our bodies in our epigenome which is basically the markings that describe how our genes are converted into signals, but also through our immune systems, and again through our stress hormones and the like and those get transferred to our offspring.

So the way that I conceptualize this is humans in the modern-day are suffering from an epidemic of stuckness, we are getting stuck in patterns of poor behavior, we are getting stuck in patterns of psychological loops, and that these patterns of stuckness get transferred to our offspring by way of things like our genetics, and by way of things like stress and immune pathways.

**Shawn Stevenson:** This is exactly why I want to have you on because you're bringing up a very important point and perspective, and I don't think that a lot of us realize often that we are literally, unaware or unconscious, for the most part, that we are reacting or responding to the kind of impressive force of our environment, we have no idea it's happening, it's like a fish being in water, the fish doesn't know it's in water until it gets pulled out of it, you know what I mean.

And so we're oftentimes just operating in this kind of unconscious state that when we're talking about exposure to actions and it having an impact on the generations after us and what's happened prior to us, and understand today we actually have a very sound science affirming how we do in fact, have these

epigenetic influences and shifts that can take place in our genetic expression for our offspring based on our lifestyle and our choices right now, and more so I think it's important for us to have the revelation that we are having a tendency towards passing down and not just in our family structure, but... And I want to talk more about this with you too, but our tendency towards these negative behaviors, the impact that it can have on your neighbor, the impact that it can have on somebody you are in a debate with... On Instagram, you know the impact that it can have on just your perception of what's happening in the political sphere, all of these things are... They have a domino effect and they're affecting all of us, there's so much tension, there's so much going on beneath the surface, and so... Next up, I want to talk to you about some of the things that we can do.

Some of the things that we can help the shift in our own perception and take our power back a little bit more, and we're going to do that right after this important message, So sit tight we'll be right back.

For years, people will come into my office wanting to get programs designed for improving their health and wellness and accomplishing their goals. But the biggest question that people would ask me is, "Shawn, what can I take for more energy?" Now, what I first express to them, is that humans don't necessarily get energy, we create energy, through our interaction with food and nutrients, and also through our movement. Even as I'm moving now, I'm generating something called piezoelectricity. It's a form of energy. It's kind of a current in our bodies that we're all capable of when we are simply moving our body. So again, humans don't get energy, we make energy. But the things that we are interacting with, with our nutrition, can be paramount to our experience of having energy. And today, when people are looking for energy because of these crazy things that we have access to today, we're like chugging down these "energy drinks" that are causing more harm than good because they're hitting on one channel, just being a nervous system stimulant.

And that's okay in some small doses, but when we're doing that over and over, because, what generally happens is we get a correlating crash. We take something that spikes our nervous system, then when it starts to calm down

and cool down, it goes even lower than it was before, and we need to take something else again. So whether it's an energy drink or going ham at the local coffee shop over and over again, we start to actually lose the resilience of our receptor sites for this caffeine, and our body doesn't even use it as good as it once did. And many people have had that experience where one cup of coffee, that first experience was like life-changing. He's like, the music came on and you fell in love. Oh my gosh, this exists, but then after that, you need two cups, three cups, and we have to have a better strategy, because I'm absolutely a fan of coffee, and of caffeine, because of some of the benefits it has like, for example, on human metabolism. Studies show that caffeine can increase your metabolic rate by upwards of 11%. That means your body's ability to burn calories. And a study published in the American Journal of Clinical Nutrition found that most of the increase in metabolism from consuming caffeine is from the increase in burning of fat. So it is triggering your body to burn fat. So that might make some of us run out and want to take a bunch of caffeine, but there are different versions of caffeine.

The source that you get it from matters a lot because there are dirty versions... There's dirty caffeine, right? But we want to go for the clean stuff. There's clean, this big clean eating movement, we need to be more intentional and clean in our sources of things like coffee, as well, because of dirty caffeine... Because what good things in life come with the word dirty attached to it. We got dirty clothes. Nobody likes dirty clothes. Dirty bulking, dirty looks. Nothing good comes with the word dirty attached to it. Except maybe Christina Aguilera's Dirty. That was pretty hot when it came out. But bottom line is this, we want to get clean sources of caffeine. So organic coffee is the way to go, so we're not consuming pesticides and herbicides or rodenticides that do in fact influence our microbiome, because they're meant to destroy small organisms and guess what our gastrointestinal track is made of, these small organisms, and it can damage our endocrine system and also our nervous system as well.

So organic is definitely paramount, but also I want to see a reduction in the amount that we're taking by balancing it out with something else that provides the human body a natural source of energy production that happens within ourselves. And there's a study that's published in Medicine and Science in Sports and Exercise, that looked at 30 healthy people for six weeks and

recorded the effects of cordyceps medicinal mushroom on their performance. The group that added cordyceps to their daily regimen had twice the oxygen intake of the control group who didn't get the cordyceps. And this oxygen, by the way, when we're talking about energy, this is the number one thing that we need. Oxygen is the most important thing, far more important than anything else. You can only last a few minutes without oxygen, and oxygen is essential in our cells in providing nutrients to our cells, so this is really important. And another study that was conducted with the same researchers found that consumption of cordyceps medicinal mushroom led to a 9% increase in aerobic activity from taking cordyceps. It helps you to perform better. It directly influences your stamina and it doesn't have these weird crazy after-effects of having you crash. Alright, so this is why I love the blend of cordyceps and medicinal mushroom, and organic coffee that you get with Four Sigmatic. And I highly, highly recommend checking it out.

I absolutely love it. It's what I had today. It's [foursigmatic.com/model](https://foursigmatic.com/model). That's F-O-U-R-S-I-G M-A-T-I-C .com/ model, and you get 15% off all of their incredible mushroom coffees, mushroom hot cocoas, and mushroom elixirs, as well. If you're not a fan of coffee, you can get cordyceps by itself. You can reishi and chaga all from great sources, and they're dual extracted, which sets Four Sigmatic in a league of their own. This means it's a hot water extract and alcohol extract to give you all of these nutrients that you're hearing about in these studies. You're making sure that you're getting everything. Alright, so head over there, check 'em out [foursigmatic.com/model](https://foursigmatic.com/model). And now back to the show.

**Shawn Stevenson:**

Alright, we're back and we're talking with Dr. Austin Perlmutter, and it's such an incredible conversation, so insightful, such important insights that we all need to be taking in right now, one of the things that he addressed is we have a very interesting medical paradigm right now, where we're looking at the farming of sick people, and we haven't really addressed some of our underlying chronic conditions that are making us so susceptible to COVID-19 and all manner of infectious diseases, and right now more than ever, we're at a very vulnerable state in response to COVID-19, it is unfortunately made us more vulnerable, but we are not without power, and there are things that we can do, but we have to get plugged into the information, plugged into the insights when there's so much fear being pumped to us every day. So I'm

going to pass it over to you to talk about this. What are some of the things that we can do right now personally to kind of retrain our brains amid so much turmoil and uncertainty?

**Dr. Austin Perlmutter:** Yeah, thanks. Shawn, I think the first step is developing the awareness of what's going on, and you already alluded to this, we now understand that we can get beyond the typical kind of blame and mind games that have and still are the way that we look at things like depression and anxiety and poor health... Let me give an example of what I mean. If a person says that they are angry or depressed or anxious or stressed, these are things that we just generally take at face value, it's you that is anxious, it's you that is angry, and you either are or you are not... Sometimes you think, Oh, well, I'm anxious because I saw something on the news. If you have some insight if you have some awareness, but for the most part, these are attributes we associate with our core sense of identity, and what I'm trying to say is the science tells us there's so much more to this, and like I said before, we know that your immune function, that your immune system helps to determine the way that you experience life, your mood, whether you're depressed or happy, whether you're healthy or unhealthy, that if you are to say that you're angry, that you can now say, Well, there are parts of the brain that are going to be activated if you're angry, and not only can you see those on a scan, but you can change how those are activated when you, for example, try mindfulness or even when you try eating different foods.

So I think that this awareness that we can dissect some of these problems and then make changes to the things that cause those problems is something that should open a lot of eyes and ears, I hope. Because it means that you're not just done if you're stressed, you're not done if you're anxious, you're not boxed in with depression, that there's so much more that you can develop as far as you're understanding when you look at some of the science. So as it relates to what a person can do, I think the science in this space comes in three main flavors because I look at what are the inputs that are going into the body that are changing the way that we experience our lives, that are changing our brains.

And the major inputs are going to be through the nervous system, so things

like your senses, if you touch something, smell something, see something, through your gut, because so much of the information that goes into our bodies goes in through the gut and other services like lungs and skin. But really the gut because of the food and the microbes that are living on there. And then the major one I think that has been hugely undervalued is the immune system, because the immune system is really a language that translates information from the outside of the body to the brain, to the inside of the body, that it takes the data from your food and from your gut microbes, and it converts it into signals that either race up the vagus nerve or go through your blood stream, go through the blood-brain barrier and then influence your brain. And so there's fascinating information that isn't all that new, but has been more recently explored that your brain has its own immune system, that there are immune cells in the brain. And depending on the patterns of activations of those immune cells, that may predispose us to poor choices, to depression, to things like Alzheimer's disease, things like Parkinson's Disease.

And that these cells are also involved in things like neuro-transmitters, so things like serotonin, and that they're involved in things like neuroplasticity, which is a buzzword in certain circles. But it really gets to this fundamental mechanism, which is that if you want to change your life, you have to do it by changing your brain, that if you can change your brain, then all of a sudden doors are going to open for you, and so that's a lot of different steps through this process. But what I want people to understand is, if there's something going on in their lives that they're not enjoying, not appreciating, you have the opportunity to stay in it for however long you want and just not enjoy the experience, or you have the opportunity to change something. And that something that you can change, I think is best when it goes through the brain because that's the best investment you can make. When you change your brain, it's going to downstream affect every part of your life.

So through things like dietary interventions, like things, including gut support for the microbiome and for the gut cells, and more recently, through targeted immune interventions, and I'm not talking about things like getting an injection of this that or the other, I'm talking about not just supporting the immune system, but getting to the core of changing the way that your immune system functions by nutrition, by exercise, by lifestyle, but targeted,





not just this narrative that's been put out, which is you need to boost your immune system. That's not really so helpful, because what if your immune system is already unhealthy, what if you already have a ton of inflammation. You're basically throwing gas on the fire. So what we're talking about here is getting to the cellular mechanisms that direct these parts of the body, and then looking at how we can modify these molecules that really define our health, that define our emotional state, that define these parts of who we are as a person, that we can change that. We have the power through tailored nutritional exercise and lifestyle modifications to regenerate ourselves from the ground up by changing the personalities of ourselves, changing the personalities of our immune cells, and subsequently rewiring our brains and our bodies for better health.

**Shawn Stevenson:**

Oh, that's so powerful. You just mentioned incredibly important topic, that's really the order of the day-to-day, this gut-brain access and understanding how our immune system does directly influence our cognitive function, what's happening with our brain. But it goes both ways. It's the top-down as well, and so our perception of reality, our predominant thoughts, our identity is that it's influencing directly what's happening with our immune system, and our immune system is right now the most important topic that should be at the tip of everybody's tongues. And keeping that in context, one of the things that I saw you posted a little bit ago was, we're told to worry about everything all the time right now, but the concern is, it's actually most helpful when that concern is converted into action, right? So can you talk a little bit about that?

**Dr. Austin Perlmutter:**

Yeah, and I appreciate you looking at my post. That's flattering, but what I'm trying to get to here is that if you engage, as most people do with social media, with the news, with conversations with your friends and family right now, your chances are really good that you're going to be told that everything is collapsing, whether it's people's health, people's mental health, the world order, this political faction or that political faction, this riot, that protest. There's a lot going on, and I think when there's so much going on, there's a tendency to just be overwhelmed. It's not a tendency it's what happens, we are overwhelmed and we're no longer able to act to improve the world. And what's even more concerning is I think there's a tendency to ignore one's own health and just make your mission to not change things in the world at large, but to be worried about things in the world, and it's just... It's not helpful.

So what I'm talking about here is that there are multiple types of empathy, that there is an effective and an emotional empathy, which is basically you experience something like you stub your toe and I feel, "Ooh, that looks painful." You feel it a little bit. There's cognitive empathy, which is, "I can put myself in your shoes," not necessarily, when you stub your toe, I'm feeling that. But if you're having a rough day, I can understand why. I can understand that maybe you had an argument with somebody maybe things went wrong at work, I can get that because it makes sense to me that's cognitive empathy. But then there's this third type, which is compassion, and that's the idea of putting your concerns for other people into action.

And I think that's really the most helpful of the three types because what that means is, I see that you're suffering, I'm not just going to say, "Oh my goodness, I can see you're suffering." I'm not just going to feel the suffering because you are. I'm going to do something about it. Maybe I go out and I buy you a meal because I know that a healthy meal would make you feel better. That is putting empathy into action, and I think that's really what we need more of right now, is to translate all of this fear, anxiety, and just a general sense of uncertainty into positive action. And I really think that's kind of the core of this podcast right now is saying all of this stuff is going on in the world right now, how do you translate that into something positive.

So we're not just sitting here talking about how bad the world is getting. And I think that for the average person, the best way to do that is to start investing in your own health, your own brain health, your own physical health, by the foods that you eat, it's having compassion for yourself and giving yourself that extra, let's say, hour of sleep, because you know your brain will be functioning better the next day. And then you'll be more available to pay attention to whatever cause is important to you. You'll be more likely to exercise, you'll be more likely to make good choices across your day, but you have to have that initial compassion, which is that you're worth making the investment into yourself at this point as opposed to just feeling bad for yourself or comparing yourself to others or worrying about everything else that's going on in the world. And unfortunately, these are the narratives that



are pushed forward most right now is that you have to be worried about everyone else at every given point. And I'm not saying don't worry about other people because I think we definitely need that, but it has to be converted into action.

**Shawn Stevenson:**

Yeah, yeah. So good, Austin, thank you so much for sharing your insights. And one other question I want to ask you about, because you're pointing to, this is the most critical, and it's actually the simple this thing for us to do, ironically, is for us to work on changing our perception, for us to take on what you just shared, for example, and I get a bad piece of news coming at me, and then converting that into what action can I take, how can I serve in this capacity instead of just adding another thing to be worried about onto my plate. So there's a huge level of personal responsibility, which is empowering for us, so thank you for that. Is there anything that you could share that we can possibly transfer out to other people, how can we provide some empowerment to others, because right now, as you know, and you did a wonderful post after the first debate?

And just seeing what are we doing. What are we looking at here? And there's so much divide, apparent divide so much infighting, and I don't think that humanity as a whole, we really don't get it still that we are one family. We are so deeply and intimately connected here. We're like cells of the earth's body, in a sense, and some cells are a little cancerous. But all of the cells are trying to get along to do positive things to keep the overall worldly organism working well. So is there anything we can do to help to usher in some change for our families, our communities because we do really need it right now?

**Dr. Austin Perlmutter:**

Yeah, it's such an important question. And I think so many of us have been in this position where we feel like we're doing our best to balance our lives and to keep a level head. And there's somebody we care about that is being drawn into the political rhetoric in a way that is both damaging to them and damaging to your relationship with them and their relationship with other people. And you want to just say, "Hey, why are you watching so much news? Is that really helping your mental health? Are you doing anything with that information? And they say, "Oh, you have to stay informed. And how could you not hate Blankety blank politician for all of that horrible stuff they're

doing?" I think I'm not a psychologist, but there's a lot to be said as far as setting boundaries for yourself so that you can show up each day and do your work. But I think too, it's finding the areas that there is overlap with these people. My sense is, as much as you can get to a point of reflection instead of reaction, you're going to have benefit, and that may not be necessarily in something like politics. If you go to a rally for a candidate and you tell this person, "Hey, you need to tone it down. This isn't good for you." You're not going to get anywhere.

But if you tell this person, "Hey, listen, what is it that you do care about? Do you care about being able to hike with your grandkids?" Then we should talk about some nutritional interventions. And when you talk about the fact that certain macro and micronutrients are associated with not just better brain health, but better decision-making, a more reflective thought process, then all of a sudden I see that is translating over. So if you get somebody to go out and exercise with you, we know that exercise boost both short-term and long-term executive functions, which are basically the abilities of the brain to be reflective and thoughtful. And that's what we need more of right now. We need thoughtfulness we don't need reactivity. So I guess what I'm trying to say is, if there are people in your life or maybe it's just you, and you say, "I don't want to be as reactive", then don't go after the thing that is most bothersome to you. Go after something else that you can agree is a reasonable intervention, but that also will have effects on improving your brain function.

And obviously, you've done a lot of work with this. I think that one of the best places to start here is sleep. And why I say this is because pretty consistently we see that sleep is necessary to dampen reactivity and reactivity is the problem right now. And so I don't just tell people, you need to get more sleep, what I tell them is you need to prioritize the sleep in the second part of the night. And why is that? It's because that's where your REM sleep tends to be concentrated. And so why is that? It's because REM sleep has this relationship with emotional reactivity, where it seems like REM sleep calms down the part of the brain that is involved in making you more reactive to emotional stimuli. So it's as simple as getting a bit more sleep, it's more scientifically nuanced than that. But it's basically finding an in-road into your brain that is going to enable you to be more reflective across different aspects of your life.

And I think that whether that's for you or people you care about, there are so many opportunities to do that. You're going to find something that the person cares about as opposed to where everyone else is, which is screaming at them in an effort to change their mind. This is not news, I don't think to anyone that doesn't work. Look at every single presidential debate. Has any candidate ever changed their mind when they've been yelled at by the other person? I don't think it's ever happened. But we look at that as some sort of conversation, it's not. Conversations have to be from a respectful and reflective and questioning open-minded perspective, which is... It's where we're at right now, I'm 100% open to letting you change my mind, but until you get to that point, the interventions won't stick.

**Shawn Stevenson:** Ah! Dr. Perlmutter, thank you so much, man. This has been really insightful and helpful, and I'm so grateful that you're out right now and sharing your perspective and your voice. I think it's very, very healing and helpful right now. Again, there's so much going on, so I just appreciate you. If you could let everybody know where they can connect with you. You're one of the people that I follow on Instagram. So let them know where they can connect with you on Instagram and anywhere else they can stay up-to-date.

**Dr. Austin Perlmutter:** Sure Shawn, thank you again for the work that you do and for having me on. I think that we're at a time where conversations have dissolved as far as these real important conversations that are necessary to tell us what's going on in the world. So thank you for what you're doing. If people want to learn more about what I care about and the information I'm putting out, as Shawn mentioned, I have an Instagram account, it's @AustinPerlmutter, which is my name. So nothing too exciting. Or you can find me on my website, which is also austinperlmutter.com.

**Shawn Stevenson:** Awesome, thank you so much again for hanging out with me man, I appreciate it.

**Dr. Austin Perlmutter:** Sure thing.

**Shawn Stevenson:** Everybody, thank you so much for tuning into the show today. I hope you got a lot of value out of this. And listen, one of the last things that he talked about in the capacity of how can we take this transformation and then reach it out to the people around us and the people that we care about in our communities, is to create some kind of connection, some connective tissue to acknowledge it there, and then instead of debating about the minutia instead of debating about the parts, let's talk about what we can do collectively together. So maybe instead of getting on your significant other or your mother-in-law about them spending so much time watching the news, what are some of the things that can be done underneath the surface that makes everything else work better and maybe draws away some of the proclivity towards wanting to obsess over the news all the time, which is, hey, checking in and just talking about, "Hey, are you making sure that... How's your sleep patterns going? Do you guys have a regular sleep schedule, I know it's been up and down for a lot of people." And just having a conversation about that and maybe some of the benefits that they can get by getting a good night's sleep. So having some connective tissue there, instead of talking about the problems and telling people what they shouldn't be doing let's talk about some of the things that we can do collectively together.

So if you've got significant others, neighbors, other family members, and maybe you guys just talk about getting out and going for a walk each day together, or you can do this remotely even, you guys pop in the earbuds and then go for a walk and talk. So finding creative ways right now when there is an added dimension of complexity and finding a way to make this work in our favor. We have to do it, no one else is going to do it for us. And also one of the most interesting points that Dr. Perlmutter brought up was the fact that we are existing in a medical model right now that is not hyper-focused on preventing disease. It is what it is. Every single chronic disease continues to skyrocket every year, and all we're doing is continuing to treat symptoms. So 4 trillion dollar a year industry that is not yielding results, it just isn't. And we need to be honest about it. We need to get face-to-face with it. This is an individual who spent massive amounts of time and researching years training to become an MD, and him being able to see the flaws within the system and

to stand up and say, "Hey, there's some things that are not working here. What can we do better?" That's what intelligence is. That's what we should be looking at. That's what science is.

And understanding that we do not have this all figured out. We never will. And that's the beauty of it. But when we get caught in this paradigm that we've got all the answers, we got it all figured out, that our textbook is telling us the textbook answers, we start to fail. And this is an opportunity for us to realize that. Now I mentioned this in recent episodes, it takes about right now, an average of Clinical Trial proving the effectiveness of a certain, we'll say dietary intervention, 17 years for it to be implemented widespread in clinical practice, 17 years. We don't have that kind of time. That's what's so powerful about right now in human history. Looking at it from the outside, in some ways we could think this is the worst of times, but it's said classic novel it's the best at times, it's the worst of times it depends on what you tune into. Right now, it's the best of times because there aren't gatekeepers for you getting access to this information and using it in your life and using it to effect change in your community.

One of the things that he talked about, we've been... There's been flu vaccines, it's been about 80 years now, and the flu is still alive and kicking. It's still doing its thing. Upwards of 650,000 people die every year from influenza. What? This time right now with COVID, we finally get to bring these things out to the open and talk about them. And that's just from the respiratory effects of influenza, that's just from that portion of it. We're not talking about influenza-related seizures and organ failures and all manner of other things. This is adding on hundreds of thousands of more deaths every year. Every year. What are we going to do about it? Because again, just like with COVID-19, the majority of folks who are falling victim to seasonal flu are folks with pre-existing chronic diseases. What are we going to do about it? We just going to keep sitting back and letting this happen, and right now, and him mentioning, of course, that influenza is tricky 'cause it keeps mutating. So we got a new vaccine, another vaccine, another vaccine, still alive, still around and kicking. Not just kicking, it's kicking the crap out of us.

Worldwide, every year, hundreds of thousands of lives lost. It doesn't have to be this way. And if we're banking on a vaccine coming around for this, and then things can "get back to normal" we're really fooling ourselves because we already have data showing SARS-COV-2 is already mutated several times. That's what viruses do, but we're existing in a medical model is trying to basically throw a drug at a symptom instead of addressing the underlying susceptibility. We know that healthier people are more vigorous. Their systems are more vigorous and robust in response to all manner of opportunistic viruses, bacteria, fungi. This is happening 24/7/365. We cannot escape it. Every single one of us are exposed to trillions of viruses every single day. Every day. When our systems are compromised, that's when opportunistic infections can take hold of our system.

And even with that, we can still, if we are in a healthier state overall, our bodies have a much greater capacity to overcome those things, even if we do transmit it in infection. And this is not being talked about enough. It's up to us because we just continue to try to treat a symptom and we're not addressing the underlying susceptibility. This is what this is offering us to do right now. But it's also going to take a level of compassion, because just going out and telling everybody how they're wrong, might not do the trick. So I love that he talked about being able to translate our concerns about everything, translate our concerns and our worry into action, specifically into compassion.

Because sympathy says, "Ooh, I feel for you, I feel what you feel. I'm in the muck with you." Empathy says, "Conceptually, I understand how you feel." Compassion says, "How can I serve?" Compassion, I'm coming to express my passion to serve you. This is what we need more of, so coming from a place of service, but also having compassion for ourselves because this is the time right now we're tuning in to our own internal conversations and dialogues. And seeing what are the repetitive things, the questions that we're asking ourselves because our questions really do control our answers, questions are the answer, guiding our thought process and our brain and our perspective, because ultimately right now, life is requiring a shift in our own personal identity and starting to identify, who do we see ourselves as? And who do we want to become, 'cause right now, the conditions are ripe for us to become the person that we were born to become. But it's up to us to do it. I appreciate you so much for tuning into the show today. If you got a lot of value out of

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