



Dr. Drew Sinatra: COVID-19 and the isolation it has caused has amplified mental and physical health challenges for almost everyone. Our sleep, mood, diet — all of these are under assault. Today, I'm very excited to welcome back Dr. Austin Perlmutter. We'll be talking about the ways our brains have been hijacked and how that leads us to make poor decisions. We'll discuss how we can better cope with "the loneliness pandemic," and the constant psychological challenges we are facing every single day. Dr. Austin also shares some simple solutions for how to live through these uncertain times.

Narrator: Welcome to **Be HEALTHistic**, the podcast that's more than just health and wellness information — it's here to help you explore your options across traditional and natural medicine, so that you can make informed decisions for you and your family. This podcast illuminates the whole story about holistic health by providing access to the expertise of Drs. Steve and Drew Sinatra, who together have decades of integrative health experience. **Be HEALTHistic** is powered by our friends at Healthy Directions. Now, let's join our hosts.

Dr. Drew Sinatra: Hi, folks...if you like what you hear today and you want to listen to future conversations on all things integrative and holistic health, subscribe to our podcast at **BeHealthisticPodcast.com**. Also, check out and subscribe to the Healthy Directions YouTube channel, which features video versions of our episodes, plus extra videos you won't want to miss. And finally, we have more with me, Dr. Drew Sinatra, my dad, Dr. Steve Sinatra, and other health experts at [HealthyDirections.com](http://HealthyDirections.com).

Dr. Drew Sinatra: Hey, everyone, welcome to another episode of **Be HEALTHistic**. Today on the show we have Dr. Austin Perlmutter, a board-certified internal medicine physician and *New York Times* bestselling co-author of *Brain Wash* that he wrote with his father, Dr. David Perlmutter. Dr. Austin is actually a returning guest. Last season, we had him and his dad on the show to talk with me and my dad about their book. We had a really interesting conversation, so I'm thrilled to welcome Dr. Austin back on the show. Thanks for joining us again today.

Dr. Austin Perlmutter: Yeah, thank you so much for having me back.

Dr. Drew Sinatra: Well, yeah, we had a fascinating discussion with you and your father last time, and for our listeners that may have not listened to that show yet, could you talk about the theme of *Brain Wash*, what you talked about throughout that book — and how it relates to COVID-19?

Dr. Austin Perlmutter: Yeah, so my dad and I wrote this book, *Brain Wash*. And he's a neurologist, I'm an internal medicine doctor; we came together with this central question, which is: Why is it that despite having access to everything we need for basic function,



despite having access to everything we think we need to be happy, and despite knowing what we need to do to be happy, do we still continue to make such horrible decisions? Why is it that we, you know...know that junk food is bad for us, we try to stop eating junk food, but we continue to eat it. We know exercise is good for us, but we can't get ourselves to get up off the couch. We know we're trying to cut back on online shopping, let's say, and yet we wind up with these boxes from Amazon showing up on our porch every morning. And so that led us to a deep dive into what's going on in the modern world, what is it that is compromising our decision making?

Dr. Austin Perlmutter: And we looked into the brain, and we found that there are these patterns of brain activation — and I should say deactivation, as well — that correlate with making good or bad decisions, and that also correlate with our mood. And so, really what we're talking about in this book is hacking your brain back. Because your brain has been hacked, you're losing ground as far as making good decisions, that's translating into worse outcomes, both health and happiness. But there are so many opportunities that we have every day to take our brains back for better choices, and for better mood. So there's a lot of stuff to dissect to do that, but the bottom line we want to bring to the attention of the people listening is, you know, we've been kind of hijacked into making poor choices, and to being unhealthy, and really, to being unhappy. And unless we're willing to understand how that happens, we're going to be stuck in this negative cycle of making bad choices and, really, not being able to find a way out.

Dr. Drew Sinatra: Yeah, and let's dig into the brain hacking piece, like how have our brains been hijacked? What's happened there?

Dr. Austin Perlmutter: For sure, and so...in the book we talk about what are the things that humans, as a species, have carried forward in the last couple of 100,000 years. As much as we'd like to think that we're some sort of incredibly advanced race, the truth is we're not that different, from a structural perspective, to what our ancestors several 100 years ago, or several 100,000 years ago, looked like. Our brains aren't really that different from 10,000, 20,000, 30,000 years ago. What is different is the way that we've, kind of, activated and deactivated our brains.

Dr. Austin Perlmutter: And so, if you look at these patterns that humans tend to activate strongly to, we have things like sugar. Humans love sugar, and as we say in the book, people say, "Oh, you do or don't have a sweet tooth." We all have a sweet tooth. The reason for that is a very good evolutionary reason. Sweet meant that it was high in carbohydrate, and it meant high in sugar, and it also meant safe. Sweet foods tended to be safer foods. So if you're wandering around on the plains, and you come across a bush that has sweet fruit on it, you're going load up on those simple carbohydrates because that's great — it's going to give you some extra



reserve and energy. Fast forward, you know, a couple 100,000 years, and here we are with everything being sweet. The majority of foods and drinks in the American food supply contain added sugar, contain added sweetener. Why is that? Because humans gravitate towards sweet, and we know that sweet lights up the reward center of the brain, it keeps us coming back for those same types of foods. It's the same thing with certain types fats, but it really is the sugar fix that we're all craving, because it's the way our brains were set up.

Dr. Austin Perlmutter: And so, a lot of foods and drinks today capitalize on this by adding this to their product. And it's gotten to the point where you can't even taste it anymore, because the baseline, the status quo, if you were to go buy a food or a beverage is added sugar. And so, I liken it to iced tea. If you ever drank iced tea, I don't know if you're an iced tea person...I used to be. But if you were to taste iced tea, for most people, you have to put in ton of sugar before it even tastes reasonable. That's not even sweet tea, that's just iced tea — and that's where we're at. If you give somebody a cup of unsweetened iced tea, it's disgusting, what is this? Or black coffee, what is this horrible mess? So that's one way in which our brains have kind of been hijacked — it's our sugar receptors, it's our sensitivity to sweet. And obviously we know that consuming a bunch of extra sugar is linked to all of the metabolic conditions, and really, a lot of the chronic diseases, too.

Dr. Austin Perlmutter: And then the other kind of things that we talk about are, as it relates to our social interactions, we have, as humans, this natural tendency to want to be in social interaction with others. We really care about our social interactions. And beyond that, we tend to experience social rejection as pain. And you can see this in neuroscience studies, but there's literally pain involved when people are rejected. And so, now you find a situation where people are instead of having a couple of important relationships that they need to maintain, are maintaining relationships with thousands of people — many of which they don't really know. And are constantly being judged for the selfie they posted on social media, or for their post on a variety of other platforms, as far as your value, your job, the way that your house looks. And so we're in these, kind of, consistent cycles, these rampant cycles of social comparison. And that's not really helpful, either.

Dr. Austin Perlmutter: And then, the last point I'll make, I mean, there are a lot of ways that we can draw these parallels, is the instant gratification piece. What we talk about in the book is that in the brain there are different ways of processing making decisions. And we need a balance between more impulsive, emotionally reactive, short-term types of decisions — and more long-term, pensive, reflective types of decisions. In general, we're better served making more reflective decisions. The ones that we, kind of, weigh the pros and cons, and those require us to bring online a part of our brain called the prefrontal cortex,



which is considered one of the more recently evolved parts of our brain. It's also considered to be pretty unique to humans. It's bigger in humans, as a reflection of percentage of the brain, it has more involution, so it's more complex than other animals. But we need that to make these longer-term decisions.

Dr. Austin Perlmutter: And what we find in the book, and what I think anybody who goes out into the world today can see pretty clearly, is that our decisions are now biased towards instant gratification. We need that food right away, we need that purchase online right away, we need the social approval right away. And this is an issue, because for the most part, those short-term, instant gratification-type decisions are leading us to making poor choices. They're leading us to making the decisions that lead to chronic disease. And unfortunately, also depression, anxiety, and chronic stress. And over time, due to neuroplasticity, our brains rewire in such a way that it reinforces these types of decisions.

Dr. Austin Perlmutter: So our brains increasingly rely on these quick fixes, and it puts us into a cycle where we lead to the things that are so problematic, as I just said — bad mood, anxiety, stress disorders, as well as things like obesity, and diabetes, and cardiovascular disease. So what we're really talking about here, at the core of all of it is, our brains are amazing — but they're not necessarily any different than they were thousands of years ago. And so, what's great about our brains is they're flexible, they react to the environment, they learn, they change, they're plastic. But when the influences on our brains by, let's say, a marketing firm, or let's say, an unhealthy food that's at every street corner, are pushing it in a certain direction, we wind up feeling that. We wind up experiencing those consequences, and those consequences are the things we have problems with today. It's the health and mental health problems that are so rampant in the modern world.

Dr. Drew Sinatra: And this is the...you're also speaking to the amygdala, right? We're overstimulating the amygdala through all these mechanisms.

Dr. Austin Perlmutter: Yeah, so the two regions of the brain we want to draw attention to — and obviously, neuroscience is a lot more complicated than this — are the prefrontal cortex, which I just described, and then the limbic system. And the limbic system has a bunch of components; the hypothalamus, the hippocampus, but also the amygdala. And the amygdala is...you know, I don't want to oversimplify it, but the amygdala is strongly involved in the stress response. It is one of the central components of that "fight or flight" response, when you see something scary, let's say it's a snake or a spider or saber tooth cat, depending on who you are, that's going to activate the amygdala. Which shoots out through the sympathetic nervous system and the HPA axis the stress hormones — cortisol norepinephrine, epinephrine — and increases your heart rate, increases your



blood pressure. Which is great in the short run, if you're trying to escape from a threat. But in the long run, we know that this type of chronic stress, again, mediated by the amygdala, is going to increase your odds for a variety of health conditions. Most conclusively, I would say, in the realm of mental health and anxiety.

Dr. Austin Perlmutter: And so, what you see is people with anxiety pretty consistently have increased activation of the amygdala. And what you see in people who try to do things, interventions, to calm the amygdala — things like meditation or nature exposure, or even sleep — is that you have decreased activation of the amygdala, and that correlates with more of reflective thinking and less anxiety. So, that's kind of a complicated description here, but what we're talking about is there are regions in the brain where activation correlates with things like anxiety and poor decision making, and our goal should be to say, look, what things can we do to improve our quality of life, and how do they relate to various activation patterns in the brain? Generally speaking, what we want is more prefrontal activation and decreased amygdala activation.

Dr. Drew Sinatra: Yeah, and last time we spoke, too, about the overdrive and sympathetic mode that we're all in, which is tying into the amygdala there. Can you bring together all that you just spoke of in what's happening with COVID right now? With all the information we're getting that may not be true, may not be false, different perspectives out there, different recommendations...like, how is all that playing a role in our mental health, with added...sorry, increased depression, anxiety, isolation, all that?

Dr. Austin Perlmutter: For sure. Well, let me start with a little bit of background here, because I think that there's so much conversation around coronavirus/COVID that it can be a little bit confusing unless you nail in a couple of details. So, what we call COVID-19 is not a virus; it's the disease that results from infection with a virus. And that virus is SARS Corona virus two, or severe acute respiratory syndrome coronavirus two — which is an RNA virus, and that seems to especially cause issues with the lungs. Bottom line here is COVID is really a disease that is a result of a virus, and so, it's not the same depending on which person it is. It tends to be more of a lung-based issue, but we've seen a variety of different manifestations, some brain, people talking about heart, some people talking about gut, and again, a lot of people talking about things like lung issues, breathing issues. So, as we talk about problems that result from COVID, that's really talking about the disease that is a result of the virus. But I think within that, there are these two categories. There's the result of actually having the virus infecting your body; which is talking about, this virus goes in, it infects the cells, it messes with the machinery of the cells, it induces inflammation in the cells. You start coughing, you have trouble breathing, maybe you have GI issues.



Dr. Austin Perlmutter: So, based on the most recent information, this seems to be a problem for millions of people worldwide. And so, no reason to downplay this, this is actually a big issue. A lot of people are experiencing symptoms, problems, as a result of that virus being in their body, and creating issues there. But what you're referring to here, which I think is a second component of this and is really important also — is the symptoms, the problems, that are an indirect result of the virus. So I'm not talking about you have the infection with the virus, and now you're having depression. I'm talking about the fact that billions of people, I mean, really, almost the entire global population is experiencing some degree of stress, anxiety, around this virus. And so that's talking about things like loneliness, and isolation, and economic stress, and this doesn't seem to be going away anytime in the near future. So, as it relates to this, I've been talking about this in recent posts and videos, but what we've seen so far is an increased rate of depression and anxiety since COVID started. And these are studies from a variety of countries, starting with China, unsurprisingly, because they had access to the data first.

Dr. Austin Perlmutter: But what you see is across the world in countries that are significantly affected by COVID — which is, at this point, basically every country, when they do pre- and post-studies. So, what were baseline rates of anxiety and depression, what are they like now? You see that they've gone up, in some cases, quite dramatically. And there was a study published in *JAMA* not too long ago, or the *Journal of the American Medical Association*, that found these types of results for Americans. And so, again...depression, anxiety, and unsurprisingly, stress. If I said COVID is stressful, I don't think anyone would disagree with that. And so we know that stress has its own correlates with brain function and problems with health diseases, like I said before. But then maybe even more interesting are the things that don't necessarily fall within the typical mental health set of symptoms, but are closely correlated with that. So there's been a trend towards more comfort food consumption, which...it makes sense, you're stressed, you want to reach to something that's going to calm you down, calm down that stress...you go to comfort food. And why does that matter? Because what is comfort food? It tends to be so comforting because it's really high in simple carbohydrates. And that's a problem for a variety of reasons that we can discuss. But in general, these are unhealthy foods that may, in fact, predispose us to having worse complications if we do get coronavirus, which is a terrible situation.

Dr. Austin Perlmutter: And then the last thing I'll mention here is the loneliness piece. There's been a lot of research recently talking about loneliness, and how that influences our health. The U.K. appointed a minister for loneliness, because they were already having an epidemic of loneliness there. And so, there were a lot of mostly news-



type articles that are talking about this concern for a concurrent “pandemic of loneliness” as a result of all of this social isolation. So to summarize what I was saying there, yes, we have this really deadly, viral condition — and I say deadly not because most people that get the virus are going to die, but because a lot of appeared to have died as a result of the infection. But then we also have the mental health consequences of this thing existing at all. And some of that is a result of the measures we’re taking to lower spread from the virus.

**Dr. Austin Perlmutter:** And so, to pull all of that into one narrative, what I think is fascinating is the things that we are doing as an indirect result of the virus — eating unhealthy foods, experiencing more stress, experiencing more loneliness — that these things have a known effect on our immune system. And that those effects on our immune system are basically the exact effects that seem to predispose people to worst complications if they do get the virus. So, if I was a virus and my goal was to cause mayhem, this is exactly what I would do. I would obviously create problems with people in their respiratory system so that they spread the virus, but I would also induce a second psychological pandemic, so that people were more predisposed to having problems if they got me, or the virus. So it’s really, kind of, a fascinating series of interlocking concepts, and as we talk about solutions to this, I think there are a lot of considerations, but I think that really is the bigger picture. Because we’re so fixated on what does the virus do in the body, that we’re not talking about, what does the virus do to the mind? And those may actually be, on a larger scale, the more significant consequences.

**Dr. Drew Sinatra:** Yeah, that’s a great summary. And I wanted to touch on the food piece, the comfort food piece, because that is something that I think all of us have been struggling with. I actually thought one of the best things from the lockdown was the fact that more people would be cooking in their homes, and when you cook in your homes, you’re not going to be eating as many refined carbohydrates and sugar, etc. But people do have their comfort foods. What do you recommend that people do to get off that train, to really get off this addiction cycle of wanting to feed yourself with something that’s going to get you temporarily high, to get you out of the depression. How do we do this?

**Dr. Austin Perlmutter:** Well, I look at what you just described as obviously a really important component to lifestyle change. But if you think about COVID and what’s going on right now, and then you think about what was happening prior to COVID, you can really see this as a microcosm of the preexisting issues. You can see this as, in essence, it’s like...here’s what was going wrong, and then somebody just took the throttle and pushed it forward a little bit. We’re all experiencing stress to start with, or many of us experiencing poor mental health to start with, and poor physical health, and we were already kind of doing this stuff. I mean, you don’t have to look very far to know that if a person is stressed they’re more



likely to go and make poor food choices...and a lot of people were already stressed. So now you have a situation where you might be stuck at home, and you might be dealing with more economic instability, your job isn't as stable, you don't have as much money coming in. And so what do you do in these cases, you turn to whatever's going to make you feel better in the short term. And that tends to be what is cheap and available. What is that? It's binge-watching TV shows, and buying and eating unhealthy food.

Dr. Austin Perlmutter: So really, you know, I think there are a lot of factors at play as far as why this has happened, you know, what is this environment that we've set up where it makes it easiest to make poor choices. But I'm a big proponent of looking at decision making and behavior change from two big buckets, or in two big buckets. One is, what do you consciously do to improve the quality of your choices? And the other is, what do you do to wire your unconscious brain for better choices? So, those two things interface. For the conscious piece, you think about, how do you...how do you wind up eating junk food or healthy food? Well, you have to buy it, right? So if you're conscious about every step of the process, how does the food get in my house? Or take it a step further, how do I wind up in a situation where I'm buying the unhealthy food in the first place?

Dr. Austin Perlmutter: And you kind of go through and say, how do I protect myself against this, that, or the other? So, maybe the protecting yourself piece is you have a grocery list, and you don't buy anything that isn't on that list beforehand. Maybe the protecting yourself consciously is saying, "I'm going to eat whatever junk food I have because I feel guilty about throwing it away, but then I refuse to buy more of it." And maybe it's, "I'm going to enlist the help of my friends and family members, so that we're all on the same page, so that I don't wind up buying and eating more of this junk food." And then the other piece of that is — and maybe more interesting for people who haven't heard about this before — is the role of unconscious programming on the choices you make. And so it's been said that habits, which are unconscious decisions, for the most part, account for around 40 or so percent of our daily choices, which is a lot. But it's also been shown that when people are under conditions of stress, they gravitate towards those unconscious, habit-based decisions.

Dr. Austin Perlmutter: So I would vote that given the known amount of stress people are experiencing right now, people are probably having more habit based decisions than ever. They're doing what's easy, they're doing what they have done a million times before. So that can be a major problem if those habits are unhealthy. If the habit is at 6:00 p.m., I sit down on the couch and consume a pint of ice cream and eat a bag of chips because that's what, in theory, makes me feel better. So as it relates to habits, and having unhealthy or healthy habits, I think the key





there is knowing your triggers, right? So what is it that prompts the behavior? And if you can understand your trigger, which is I feel at 6:00 p.m., I get sick of working, and then I go sit on the couch, and then I take out the ice cream...maybe that's breaking that down. So at 6:00 p.m., I'm going to do something else, or maybe at 5:30, I'm going to do something else. The other thing about habits that I think is really important is it's not like you can just stop a habit — you have to replace it with a better one.

**Dr. Austin Perlmutter:** So, I think for anyone listening who is, and this is obviously more than just COVID, but who is trying to design better behaviors, knowing what your unhealthy behaviors are and then breaking those down into what are the triggers that cause those behaviors to happen. And then how can you write a healthier habit by creating a...and this is, I guess, beyond the scope of a short podcast, but by creating a habit loop that leads you to a healthier behavior. So really, to summarize this, in any case, whether it's COVID or otherwise, if you're doing things that you don't want to be doing, having unhealthy behaviors be the norm, you should be thinking about how can you consciously change that behavior, and then how can you unconsciously change that behavior. Both methods require you to rewire your brain, they're just slightly different as far as how they're applied. But getting beyond this, I just need to do something better, and then blaming yourself when you don't, is the first step. And then, really, anything you do beyond that is going to be more helpful.

**Dr. Drew Sinatra:** Well, and I think, too, this is something that your father said on the last podcast, but it's time for us to stop blaming people, stop blaming our patients for these decisions that they're making, because it's really not their fault. I mean, their brains have truly been hijacked. I like what you said about, first off, not buying things that you would bring into your home that you should not be eating. Secondly, identifying the triggers that are bringing people to want to sit on the couch at 6:00 p.m., watch Netflix, and devour a pint of ice cream.

**Dr. Drew Sinatra:** What about the ways to mitigate stress? I know in your book, you talked about meditation, you talked about exercise, you talked about being in nature. Are there any of those three that you want to dive into quickly, to tell our listeners another way to help reduce stress?

**Dr. Austin Perlmutter:** Yeah. So stress is a fascinating thing, and I'm sure there's no shortage of podcasts, articles, books talking about ways to lower stress. I think it's important to note that, you know, we need stress and it's a continuum. You need some activation of your stress response to motivate you to do anything. If you weren't stressed, you'd just sit there. You need to have that desire for change, which is really what stress is — it's some sort of, kind of, obligation on your body to do something differently. So, the goal isn't to get rid of stress, it's



to have the right type of stress to get you to your objective, and not to go into that chronic stress that we know is so problematic. So as it relates to that, I would say, your goal is to lower as much as you can, unnecessary sources of stress. But then, what I may be more interested in is, how do you wire your brain to better tolerate stress? So that it isn't such a big deal, so that it's not so crippling? How do you move yourself a little bit backwards on that stress curve, so that you're getting the beneficial effects of stress to be motivated, but not suffering all of the chronic issues, like inflammation, that are a result of long-term activation of the stress system.

Dr. Austin Perlmutter: And so, you know...I'm not going to blow any minds here as far as talking about the de-stressing techniques. You guys know about meditation, you know about exercise, you know about eating healthier, you probably know about the gut microbiome and its role on stress. I'm really a big fan of kind of two principle strategies — and meditation, whatever you want to say about it, bottom line is doing anything outside of the typical stuff that people are doing today is a de-stressor. And so, meditation, closing your eyes and not looking at a screen, and not watching the news — that is a de-stressor in part, because you're just not focused on the stressful modern world. So checking out of this hotel of the modern world, where every moment is stress, is generally a good thing.

Dr. Austin Perlmutter: And so the point that I would advocate for here, as much as is possible for people listening, is the nature piece. And that's something that I think we've known in our bones for a long time, but the science has really shown us in the last 10 to 20 years that nature exposure is a great way to deactivate the sympathetic nervous system and activate the parasympathetic nervous system. And this works on several levels. It's partially the psychological piece, it's partially through, it seems, the olfactory system. So, the olfactory system, or your sense of smell, is kind of fascinating because unlike the other nerves going into the brain, this one bypasses the need to go through the thalamus, the relay station — it goes directly from the nose into the brain. And so scientists have thought that the chemicals that you find in nature, these phytoncides, which are these volatile, organic compounds that you can find in, for example, pine trees or cedar trees, that these things appear to trigger an anti-stress response in your brain quite quickly.

Dr. Austin Perlmutter: There's similar stuff for vision, there may be even some benefit to hearing certain nature noises. But what I tell people is, you know, getting out into nature...fantastic. If you can get out into nature, go camping, go hiking, whatever, absolutely. But for many of us, including me right now, because Oregon is very smoky, getting a plant inside is an awesome way to de-stress. And if you can't even get a plant, try some essential oils. I'm not saying, you know, that you need to take those essential oils and go crazy. But what I am



saying is get an essential oil, like a cedar oil, or a pine oil, or something like that. Because then you're going to be benefiting from these natural molecules that help to calm down the stress response. So there's really no excuse for not leveraging the nature science, and I think that as it relates to stress reduction, it is one of the lowest impact things...or biggest impact, but lowest cost, lowest amount of time needed to be spent. Just get some oils, or get an indoor plant, or if you can, get outside.

Dr. Drew Sinatra: I love that idea, because I'm with you in the Pacific Northwest, and it's been brutal here a couple of weeks with the smoke. And if you can't get out into nature, perhaps you can be in your home, you can meditate, get some essential oils, trick your brain into believing perhaps that you are out in nature.

Dr. Drew Sinatra: Let me ask you a question, I mean, are these volatile, organic compounds, these phytoncides, actually found in essential oils? Or are they only found in nature, coming from cedar or pine? Or other plants?

Dr. Austin Perlmutter: Yeah, so the that's what is in these essential oils, that's what gives them...

Dr. Drew Sinatra: Go it, got it.

Dr. Austin Perlmutter: And so, there are different degrees of research depending on the specific kind of oils that you can find. And so, in the book we talk about cedar, cedar oil, as one of those that has the most significant benefits. But I think there is the molecule-based benefit, which is this is an organic molecule that triggers that olfactory response. But then there's also the psychological piece, too, which is you're smelling what smells like a forest. Your brain is saying, I'm outside, even if you are inside — and that helps to calm down and active...calm down sympathetic, activate parasympathetic, and in essence, quell the stress response.

Dr. Drew Sinatra: Got it, okay. Well, as we wrap up the show today, Austin, as always we're going to share some **Wellness Wisdom** with our listeners. In keeping what we've been talking about today, if you had one big "pearl" of wisdom with regard to treating depression naturally, what would it be?

Dr. Austin Perlmutter: Sure, well, such a good question. And I think such an important question right now, when so many people are experiencing symptoms of depression. And this doesn't necessarily mean full-blown, clinical depression, but just feeling depressed. So one thing I would really say is, the first step is, it's something worth talking about. Depression is such a problem for many, because it's seen as a weakness, or seen as something that they need to deal with on their own. And I know that, for me, having depressive symptoms during my medical



training, the status quo was, be strong, strong people don't have depression — and it's so false.

Dr. Austin Perlmutter: So what I would recommend is anybody who is having depression symptoms, it's not something that you should have to deal with on your own. So seek help, whether that's talking to other people in your friends and family group, or seeking professional help, these are great things to do. They're great for you, they're great for the people you care about, because then you're more available. I think the modern world just makes us feel as though we should not feel depression. Or even worse, that it creates this need for something more, because that way it can be filled by some food, or some purchase online, or some TV show. And that constant wanting, and craving, and feeling that emptiness is like...it's such a problem. So I think having the conversation about it and being aware of the fact that this is, for many people, becoming the default state is the first step.

Dr. Austin Perlmutter: And then I would say, as far as natural remedies for depression...first, if you're having significant depression symptoms, don't mess around with something like essential oils — go seek help. I'm not saying that those things don't help, but I think that the best step is to get somebody who is on your team early on, because they can help guide therapy. So what are the things that you can be doing in addition to this? Or if it's a more mild situation, to help remedy these symptoms? I think stress, food, sleep, and nature are really the main things that I would go with first. And you don't have to do them all at once, but all of these seem to have beneficial effects on our brains and our mood. So getting a good night's sleep can be so powerful in helping to reset emotional reactivity, specifically the second half of the night, because that's where you get your REM sleep and that calms down emotional reactivity. So if you are somebody who is feeling a lot of anger, a lot of anxiety, a lot of depressive symptoms, don't cut your sleep short in the morning, because tends to be the second half of the night that you really need for the emotional support. So if you are going to cut your night short, try to go to bed a little bit later, and give yourself that early morning time in bed and sleeping.

Dr. Austin Perlmutter: The next thing would be for stress, and we already talked about this a little bit, but as much as you can do to calm down the stress system through all of these different interventions, the better. A little bit more, I would say, research in anxiety than depression, but it's still pretty substantially linked to depression. And then nature, we talked about. And then finally, food. If you are looking at the research in depression and food; I have an article coming out on my dad's website pretty soon that does a review of where we're at, as far as the most recent Matt analyses. And then there are three randomized controlled trials, including the SMILES trial, that look at food, or specifically, dietary interventions



for depression. The bulk of the evidence is really in the Mediterranean pattern diet, as well as a generally anti-inflammatory diet. So that's looking at things like consuming Omega-3 fats, which can be found in fish, primarily, specifically DHA and EPA, but you can also get some of this from vegetables. And then also looking at more healthy fats, monounsaturated fats, like olive oil and fats through nuts. Cutting back a bit on red meat consumption, and then just eating a lot of a rainbow variety of vegetables. And I know that's really basic, you guys can look up Mediterranean pattern diet if that's of interest to you, to get more specific on that. But I think that as it relates to dietary interventions that are going to be most applicable to the general public for depressive symptoms, you really want to look at the Mediterranean pattern diet as having the majority of the evidence base right now.

Dr. Drew Sinatra: And I just wanted to speak quickly about the sleep factor piece, because you said before — either it was on the podcast we had together or a different podcast that I've heard you on — is that when you have a good night's sleep, you wake up the next day and you can make more positive choices with your food. So you perhaps might not have an elevated cortisol, so you may not want to reach for the sugar and the carbohydrates, but you may want to reach for more the healthy fats, like you just mentioned. So having a good night's sleep sets you up to make good, positive decisions the next day.

Dr. Austin Perlmutter: Yeah, that that's absolutely right. And so, we cite in our book a recent study, or a recent review, showing that people who have poor sleep, whose sleep is disrupted or who get a sleep deficit, eat on average 385 kilocalories more per day. And they don't burn any more of that fuel through increased metabolism. So, you know, it's not obviously calories in versus calories out, it's the way you use those calories. But it seems to be, in this case, that not only are people not using those extra calories, but those calories seem to come from worse food options. And so there's other research showing that when people are sleep deprived, they tend to gravitate towards more unhealthy foods.

Dr. Austin Perlmutter: And they've done this by putting people at a buffet line after sleep deprivation, and just looking at what they pick. We all know this, and the example I like to talk about is how you feel when you're in the airport, and it's, I don't know, five in the morning, or really late at night. That cinnamon roll stand smells intoxicating. And it's because, you know, you're not in the best state...you're sleep deprived, your decision making is worse, and your brain is looking for fuel. But it's also preferentially looking for the wrong type of fuel. So you are going to do so many good things for yourself for setting up your entire day for success, by as much as possible, giving yourself that seven to eight hour window for good sleep.



Dr. Drew Sinatra: Well, I think we can both agree that fasting in an airport is probably the best thing you can do.

Dr. Austin Perlmutter: I completely agree.

Dr. Drew Sinatra: Well, Austin, it's been great having you on the show today. Thanks again for coming back.

Dr. Austin Perlmutter: Yeah absolutely, it's been a delight.

Dr. Drew Sinatra: That's our show for today, folks. If you have a question or an idea for a show topic, please send us an email or share a post with us on Facebook. And remember, if you like what you heard today and you want to be an active member of the **Be HEALTHistic** community, subscribe to our podcast at **BeHealthisticPodcast.com**, or an Apple podcasts, or wherever you download your favorites. You can also find more great content and information from us and the Healthy Directions team at [HealthyDirections.com](http://HealthyDirections.com).

Dr. Drew Sinatra: Thanks for joining us today. I'm Dr. Drew Sinatra, and this is **Be HEALTHistic**.

Narrator: Thanks for listening to **Be HEALTHistic**, powered by our friends at Healthy Directions, with Drs. Drew and Steve Sinatra. See you next time.