



EPISODE 805

How Your Environment Can Cause Dementia & Cognitive Decline

With Guest Max Lugavere

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SHAWN STEVENSON: Thank you for tuning into this very special episode of The Model Health Show. We're continuing a week dedicated to dementia and Alzheimer's awareness. Currently, Alzheimer's is the sixth leading cause of death in the United States. It's inching its way into the leading five causes of death. Worldwide is one of the leading causes of death as well. Its prevalence has been skyrocketing in recent decades and in some countries like the UK, for example, it's in the top three leading causes of death. We've got to do something about this. We need more education about this because unfortunately it is a disease that is again skyrocketing and yet there's so little education surrounding it.

And so earlier this week we had Dr. Dale Bredesen who is the leading expert in the world on the topic of Alzheimer's and dementia. Not just treatment and prevention, but reversing the condition. And if you happen to miss that episode, make sure that you check it out ASAP. All right, he's got several peer reviewed studies, clinical trials, taking folks with mild forms of Alzheimer's and going into complete remission and maintaining those results for several years. And that's the key. It's not just a one trick pony, get better for a little bit, then you go back on a decline, but it is such a comprehensive and powerful episode. So make sure you check that one out today. We're going to be talking with another expert in this subject matter and somebody who has a very deep connection with this because of the story and the experience that he had with his mother who passed away due to complications from dementia. And so you're going to be able to hear his story and the story of his mom and this remarkable way that he's keeping her spirit alive and continuing to impact. And also we're going to look at what are some of these other aspects of dementia that we might not be considering or we might not be aware of.

And also today is really about having resources, having support, having connection, and most importantly, awareness about this condition and the different aspects and also solutions. Because so many people that are stricken with this condition and also their family members are inundated with standard of care protocols that simply are not yielding results. The modus operandi of medicine the past few decades with this condition is to slow the progression of the disease. And most often it's ineffective at even doing that with these incredibly complicated and expensive drug protocols. Today we know that there are bona fide science backed solutions to yes, slow the progression of the condition to halt it altogether and even to reverse it. So I'm very excited about this and continuing this conversation. Now, if we're talking about brain nutrition, a big catch word today for cognitive performance is being able to get our hands on a science backed nootropic.

And if I'm going for a nootropic, something that is again science backed to support cognitive function, improving things like memory and reaction time. I want a nootropic that is based on something real and natural has been utilized for a significant amount of time. And also something that has other benefits outside of just being able to support cognitive function because most often something that's really good for our brains are also good for Our reproductive health is also good for our cardiovascular health. There's also good for our endocrine system, right?

It's whole body nourishment and that's what's highlighted in the study published in advanced biomedical research that found that royal jelly has the potential to improve spatial learning, improve attention and improve our memory. In addition, the researchers found that royal jelly also has antimicrobial, anti tumor and anti inflammatory benefits. Royal jelly was also found to facilitate the differentiation of all of our different brain cells. And to top it off researchers in Japan discovered that royal jelly has the power to stimulate neurogenesis, In the memory center of the brain, the hippocampus. There's only one trusted source for royal jelly that also has the combination of Bacopa included as well.

In a randomized, double blind, placebo controlled human trial found that after just six weeks of use, Bacopa significantly improved speed of visual information processing, learning rate, memory consolidation, and even decreased anxiety in study participants. This is flat out remarkable, and this is from the folks at Beekeepers Naturals. Go to [beekeepersnaturals.com/model](https://www.beekeepersnaturals.com/model) and you're gonna get 20% off their incredible nootropic called Brain Fuel, all right? That's B-E-E-K-E-E-P-E-R-S [naturals.com/model](https://www.beekeepersnaturals.com/model) for 20% off. That's [BeekeepersNaturals.com/model](https://www.beekeepersnaturals.com/model) for 20% off. brain fuel and their other incredible regenerative and third party tested for pesticide residues, for heavy metals, all these different things. You're getting the highest quality Bee products in the world. That's [beekeepersnaturals.com/model](https://www.beekeepersnaturals.com/model) for 20 percent off. And now let's get to the Apple podcast review of the week.

ITUNES REVIEW: Another five star review titled "wonderful podcast" by Joey Fry Vogel. I love the diversity of information backed by science with easily applicable strategies and testimonies. We can all understand and use it in our own lives right now. Thank you to Shawn and the team and guests.

SHAWN STEVENSON: Amazing. Thank you so much for leaving that review over on Apple podcast. I truly do appreciate that. Without further ado, let's get to our special guest and topic of the day. Max Lugavere is a health and science journalist, filmmaker and bestselling author. He's the author of the Genius trilogy of books, including the New York times bestseller genius foods and the wall street journal bestseller Genius Kitchen.

He hosts the genius life podcast, one of the top health and wellness podcasts in the world. And he's been featured in a variety of major media outlets, including the Rachael Ray Show, the Today Show, Vice, the New York Times, People Magazine, the list goes on and on. And now he is here again for this very special focus on dementia awareness. Let's dive into this conversation with the amazing Max Lugavere. All right, Max Lugavere.

MAX LUGAVERE: What up?

SHAWN STEVENSON: Fourth time here on the Model Health Show. You're in an elite class. I'm conjuring up Rocky four. All right. This was when he fought the Russian. All right. So on this episode, you're Drago.

MAX LUGAVERE: I love it.

SHAWN STEVENSON: My guy, man, I'm so happy for you. I got an opportunity to see your new film and it's very exclusive premiere and I was just blown away. And so we're going to talk about that today as well, but I want to kick things off by talking about, right now, obviously dementia. Maybe not so obviously, because I don't think a lot of people realize how pervasive and scary this issue is right now, but it's gone up precipitously in the past few decades. There are different forms of dementia, by the way, but if you could, let's start off by talking a little bit about what dementia actually is.

MAX LUGAVERE: Yeah, it's a neurodegenerative condition that compromises essentially who you are by robbing you of your memories, by robbing you of your short term and in some instances, long term memories, it can cause a stark decline in processing speed, which is one of the earliest features to go. Verbal fluency, verbal recall, it affects everybody differently. I mean, there's a saying in the dementia world that once you've seen one case of dementia, you've seen one case of dementia. So they're all quite different. And the tools that we have to treat them are meager at best. I mean, they say that neurologists don't treat disease, they admire it. And that's because the tools the pharmacology that we have at our disposal to treat these conditions are minimally effective, if effective at all. And I say this not as a clinician, I say this as somebody who obviously has had dementia in their family.

My mom had Lewy body dementia, which is akin to having both Parkinson's disease and Alzheimer's disease at the same time and the drugs were not helpful. And I think there are a few reasons for this. I think probably the most obvious reason is that this is a condition that begins decades prior to the appearance of symptoms. So it's a condition that, by some measures begins 30 to 40 years before the presentation of symptoms. By the time a person is diagnosed, they are essentially in late stage dementia, unfortunately. And that's not the case

with other kinds of chronic conditions. So it makes dementia fairly unique. Type two diabetes, for example. I mean, you can track it, you can track it from pre diabetes. You can track it even prior to that, with really good biomarkers like fasting insulin, fasting glucose, A1C.

But with dementia, by the time it's diagnosed, I mean, that's a disease whose pathology has already had its Clause deeply embedded. And I think that's the big problem. And that's, I think where the field of prevention needs to head. And in fact is heading, I mean, this is not a secret, but you know, if we can find that sort of golden biomarker earlier, decades earlier, in fact, then that would give real hope to patients.

Cause we can, that would give us an opportunity to intervene, for those that are most at risk of developing the condition. But yeah, it's different. It's different for every person underneath the umbrella of dementia. You have frontotemporal dementia. You've got the most common form, which is Alzheimer's disease dementia. You've got vascular dementia, which is the second most common form. People who have Parkinson's disease, there's a large proportion of them might develop Parkinson's disease, dementia down the line. There's Lewy body dementia, which is what my mom had. So there are many different variants. Most of the research I would say goes into studying Alzheimer's disease and then mild cognitive impairment, which is sort of like a prodrome. So like a pre-dementia of sorts.

SHAWN STEVENSON: It's a big umbrella, and obviously Alzheimer's is the standout condition because it's so high up on the leading causes of death in the United States. I believe it's right around six right now. So it's inching its way into the top five. And, obviously this is, again, even as I'm saying, obviously it's not so obvious for many of us. How this actually breaks down, not just someone's life, but also their family as well. And this is something that we're living in a universe of causality, right? Where you just said it, with the neurologist looking at this this is just this interesting phenomenon, right? But not understanding what's at the root of this, because rates going up as much and as quickly as they have, this is not an accident. There are certain things that are leading to these outcomes, but we have a system of course, that is focused more on the symptom cluster and analyzing the results instead of looking at what caused the results, right? And so treating the symptoms, obviously, instead of removing the cause. What is it about our environment? What is it about our lives today that is leading to these high rates of Dementia?

MAX LUGAVERE: Yeah. I mean, we're still figuring all that out, but I mean, we definitely do at this point I would say have a roadmap in terms of, many of the variables in modern life that are seemingly pulling the trigger on this condition. And one thing that you alluded to that I think is so important to underscore is that the heritability of these conditions is extremely low.

So for Alzheimer's disease, we have genetic risk factors, but they're not deterministic genes. The vast majority of Alzheimer's cases of patients who are suffering from Alzheimer's disease have what's called late onset or sporadic Alzheimer's disease. Only one to two, maybe 3 percent of cases are attributable to early onset or familial Alzheimer's disease, which is sort of like a gene mutation.

It's a different animal than how, most people's experiences of the disease. But heritability is low, which implies that it's really about the environment. It's about the environment and how our genes essentially interact with the environment in which they've been tasked to navigate. Parkinson's disease, another condition where the heritability is extremely low. It's not a heritable condition. It's a condition that new research is starting to suggest as being something that is largely, if not primarily, environmentally mediated due to exposure to various toxins and the like.

And I think when it comes to the environment, I mean, there are many variables. But the most recent Lancet commission on dementia, which was published in 2020, anybody can go and look this up, identified 12 modifiable risk factors and three non modifiable risk factors. So the three non modifiable risk factors are age, gender, and genes. So you can't change your genes. You can change the way your genes express themselves, certainly, but the genes that you're born with are the genes that you'll carry with you, through the end of life, your gender, you can't change, but women are at two, third at, Double the risk as compared to men. And you've had Lisa Moscone on the show. I'm sure she was brilliant. She's steadfast in terms of understanding why it is that women seem to be at double the risk as compared to men. And then of course age is still the number one risk factor, but the more empowering story is the fact that there are all these modifiable risk factors.

And, many of these modifiable risk factors are increasing prevalence, which is why I think we're seeing. rates of Alzheimer's and related conditions accelerating in, in prevalence as well. Type two diabetes is a modifiable risk factor. You don't have to be a type two diabetic, having type two diabetes increases your risk between two and four fold. And prediabetes, by the way, we consider to be a prodrome of type two diabetes, but it's essentially early stage diabetes. It's important to intervene and to make sure that you don't progress further in type two diabetes. Obviously it's characterized by insulin resistance, chronically high levels of blood sugar, chronically high levels of insulin.

So it's not good for any organ in the body. Not least of which your brain. Then there's hypertension. 50 percent of adults today have hypertension. We're now starting to see pre hypertension in adolescence, which is crazy, literally destroys the blood vessels that feed nutrients and oxygen glucose to the brain.

Obesity, that's another one. And then there are novel modifiable risk factors that have nothing to do with nutrition, which are excessive exposure to air pollution. There's hearing loss is a newly identified. Modifiable risk factor, social isolation, depression. So these are all the, this is the environment essentially. I mean those non modifiable, I mean the, I'm sorry, the modifiable risk factors describe the environment in which Alzheimer's disease and other forms of dementia can flourish.

SHAWN STEVENSON: I know that there's a lot of people, especially that, that listened to you, that might listen to this show that are very much aware of those metabolic factors influencing disease outcomes. But hearing something like pollution, for example, that might fly over our heads, and we don't really think about how might that relate to our brain health, and in particular the cases with dementia. So what's going on there?

MAX LUGAVERE: Yeah, it's super interesting. I mean, this is a first acknowledged bat, as recently as 2020 but we now see that people who live in very polluted parts of the country are at dramatically higher risk for developing Alzheimer's. Now there are confounding variables there, right? When we say risk that tends to imply correlation, people that live in very polluted areas, it's reasonable to assume that, maybe those people don't have access to the best food and the like, but there have been really interesting seminal studies to come out of, for example, Mexico city, where they see they've looked at the brains of cadavers who have died across the age spectrum, Mexico city, very polluted city.

And they see that air pollution and specifically exposure to fine particulate matter PM 2.5, which is like brake dust, like the stuff that you inhale. You can't see it, but it's released during the burning of coal and things like that. Industrial processes and the like actually can infiltrate the brain and cause pathology that's, you know, completely that we associate with Alzheimer's disease. The aggregation of amyloid beta plaque inflammation and the like. I mean, that's really not great. I mean, air pollution has an impact on our cardiovascular health. It can reduce heart rate variability. So these are all factors that contribute to this pathology.

And then, there's a whole slew of other environmental exposures that would fall underneath that bucket that we're seeing now act as essentially mitochondrial toxins. I've become aware of the work of a neurologist named Ray Dorsey. He'd be phenomenal for you to get on the show, who is a university of Rochester researcher and neurologist who's published a lot recently on the connection between exposure to certain industrial solvents, like a compound called trichloroethylene, which is still used today in dry cleaning. It was used medically up until the seventies. It was used to decaffeinate coffee. It was used actually to extract vegetable oils for time before it was replaced by hexane.

SHAWN STEVENSON: What a replacement.

MAX LUGAVERE: Yeah right? Yeah, it's crazy. But yeah we're now starting to see that these compounds, I mean, we know that these compounds create Parkinson's disease in the, in experimental models and animals, but that their occupational exposure is associated with dramatically increased. I'm talking like six fold increased risk for the development of Parkinson's disease because they're mitochondrial poisons and air pollution. I mean, when we inhale pollutants through our nose, they don't, these pollutants don't undergo the same detoxification that an ingested compound might, like you ingest a toxin, your liver detoxes it, right? Ideally. But any compound that you inhale, essentially it's got direct express elevator access to the brain. And we're seeing that's likely the case with many of these compounds, whether, certain herbicides and pesticides like paraquat, which is still being used here in the United States, it's actually produced in China. They've banned its use in China, but it's still, we're like, I think we're like the number one importer of this herbicide.

Associated with a two to three fold, if not higher risk of Parkinson's disease. Again, a compound that is literally used to create Parkinson's disease in animals. And so you just want to make sure that you're breathing clean air. And that's something that like I, if you would have asked me five years ago, I would have said, ah, no, it's no big deal. Nutrition is the bigger factor. I think air pollution is an increasing concern as it should be.

SHAWN STEVENSON: Yeah, man, we are in the same boat with that, because obviously.. Food is such a powerful aspect of our life. It's what's making our tissues running processes, but we can get a little bit blind to this because we literally can't see it. You know what I mean? Like air is something that is like we're fish don't know that they're swimming in water, right? It's just where you are. Like we're just, we can't see this incredible source of nutrition really. Like it's delivering the most powerful nutrient that we need, it's delivering oxygen and it's coming packaged with a lot of other stuff depending on what you're breathing.

And as you're saying this, I'm realizing this is something that our ancestors didn't have to deal with. It just wasn't a thing, right? Just, you just had good air, and now today. According to the EPA, there's 80, 000, newly invented industrial chemicals released into the environment. And these are the ones that they have some regulation on, right? 80, 000 newly invented chemicals and we're talking about billions and billions of tons of these things. And we're in a glorified, just like with the fish in the water, we're in a glorified snow globe when it comes to our air. And, it's so crazy to know, like things that are happening in other countries can literally land here, right?

So it's just we're all sharing this stuff and we need to start to pay better attention to this truly. And the cool thing is like shows like this and what you're doing, the information gets out there and change makers get ahold of this stuff and stuff starts happening. Like we've seen since we've been doing this, man, so many incredible change have happened with food and education out there on this. But yeah, I totally agree, just understanding how important it is to have good air quality and just all of the... Here's what we do as humans. What we've allowed to happen is an entity, an industry, they'll create a situation, maybe they're creating some kind of product. And then we'll find out later that they f***ed all these people up, right?

And it's just nobody questions the start of the thing, right? You can just do whatever. And not look at these ramifications and usually this is the problem once an entity starts making money things have to get so bad That they finally change and they'll find creative ways to not change as you just mentioned with that herbicide, right? Another one's chlorpyrifos. Like it's been caught up in red tape for years and we've got documented studies of birth defects. Neurodegenerative conditions the list goes on and on but we're still using it. We're still using it. Other countries don't, I mean, it's because it's cheap and companies, they're doing business as usual. And so I'm glad that you brought this up, man, because we don't really think about it. And it's not just you are what you eat, it's you are what you breathe. Right, at the end of the day. I want to ask you about since we also talked about food. What do you feel are the top three foods or food-like things that are really contributing to neurodegenerative conditions and dementia?

MAX LUGAVERE: Yeah. I mean, from a nutrition standpoint, I really do think that it is the preponderance of ultra processed foods. And I used to, I think put a lot more emphasis on and I certainly think there's value in having the conversation about low carb versus low fat carnivore versus vegan. I mean, those are definitely important conversations to have, but I think for most people, it's the over consumption of ultra processed foods, and I think there are many potential reasons for that we're now starting to see. Ultra processed food consumption linked to 30 negative health outcomes. Like was a meta analysis that just came out this over the past year. We've seen the link between ultra processed food consumption and now dementia for every, I believe 10 percent increment in ultra processed food consumption, 25 percent higher risk, relative risk of the development of dementia. Now, why is that the case?

Well, Certainly ultra processing, food processing in general is a continuum, right? And even within ultra processed foods, that is, that too is a continuum. I mean, you've got some that are, I think, worse than others, but by and large, I mean, these are the kinds of foods that you couldn't create in your own kitchen. If you tried, they're hyper calorie dense, they're hyper palatable, so they're difficult to moderate, in terms of our hunger levels and our satiety levels, right?

They tend to be nutrient poor, but the other thing that I think I don't think enough people are talking about with regards to ultra processed foods is that they're a major route of entry for many of these industrial pollutants.

It's not just about calories and macros. I mean, I think those are important, but ultra processed foods are a fantastic way to ingest more higher levels of phthalates, higher levels of PFAS chemicals. These are like the forever chemicals, endocrine disrupting compounds and the like. And those chemicals all have an impact on brain health. We don't have the direct science isn't settled and we don't have the direct connection yet between bisphenols and phthalates and, these PFAS chemicals and, brain health outcomes per se. But we know that they can affect, for example, insulin signaling in the body. We know that they can affect the efficacy of hormone endogenous sex hormones like testosterone, estrogen and things like that. And yeah, so it's not a surprise to me that ultra processed foods that we're now seeing this really strong connection between consuming them and poor health.

SHAWN STEVENSON: Yeah. We tend to think about the sugar contained in them and the vegetable oils, but we don't tend to think about. When you eat that Cinnabon, it's definitely coming along with some carcinogens, some obesogens, these phthalates, all these different things that create negative alterations with your metabolism. It's just like it comes along with it. I don't know why I said Cinnabon. Because of the smells man. I've never had a Cinnabon, but I saw it on.. Have you seen this movie daddy's home? Will Farrell and Mark Wahlberg man. That pairing is super interesting.

MAX LUGAVERE: That's funny.

SHAWN STEVENSON: Mark Wahlberg, Will Ferrell. He feels like he's kind of moving in on his family, he married his ex wife. He's like taking care of his kids. And so he gets them to let him stay there. You And they get up in the morning, he makes fresh cinnamon rolls, right? And Will Ferrell's like, how did you this looks incredibly like Cinnabon, it tastes like Cinnabon. A great chef never gives his secrets away. But then later in the movie he finds out that, yeah, he got Cinnabon.

MAX LUGAVERE: Well, it makes perfect sense. If you think about, try to invent, we've become so disconnected from where our food comes from, right? But you have to try to envision where it is that your food is coming from. I think that's a really important exercise. It's not just important to these days, unfortunately, read the nutrition facts label and check out the ingredients. I think it's also important to kind of, try to visualize how it is that food product came to be. Did it have to be mixed at high temperatures in a cauldron? Did it have to, before, before baking, whatever the product is, did it have to flow through a network of

tubes, plastic tubing and the like, that's, I mean, all of that, that all of those different manufacturing steps, I mean, there's leaching that occurs.

SHAWN STEVENSON: It's not on the label.

MAX LUGAVERE: It's not on the label.

SHAWN STEVENSON: You're.. That honey bun could, okay. So might have 20 ingredients on there. There can be another hundred or f***king thousand that are actually like traces of these things because of processing and it's not going to be on the label, right? There's grass. There's like these standard things that you put on label, man. Thank you for bringing it up.

MAX LUGAVERE: You facts. There's no question. And I mean, even bottled water, bottled water, right? It's the reason why we all have now microplastics, in our balls apparently. You read the headline? I mean, I don't read the study, but apparently they looked at humans. They looked at dogs and they found that 100 percent of the subjects.

SHAWN STEVENSON: 23 testicles were tested. Now I want to know what happened because they usually come in pairs. Like why did you do the 23 number? Was this Michael Jordan? I don't know. Like why 23? There's this is my special number. They tend to come in pairs, but it's 23 testicles. All, everyone tested, and they were from cadavers, by the way, had plastic. And the researchers found 12 different types of plastic on top of that. And the most predominant one was the same that is found, how plastic bottles and plastic bags are made.

MAX LUGAVERE: It's crazy. It's crazy. We're seeing now that there are microplastics in our arteries and atheromas that put us at double the risk of cardiovascular death. When we have these microplastics in our, in the fatty streaks that cause athero or that lead to atherosclerosis. So everybody on social media today is still arguing about cholesterol, this saturated fat that. What about, I mean, we're completely neglecting the microplastic side of things, which is a direct function of the overconsumption of these ultra processed foods.

SHAWN STEVENSON: We've got a quick break coming up. We'll be right back. Few people know that regularly drinking coffee has been shown to help prevent cognitive decline and reduce the risk of developing Alzheimer's and Parkinson's disease. This attribute referenced in the journal Practical Neurology is yet another reason why intelligent coffee consumption makes the list of best neuro nutritious beverages. Another study featured in the journal Psychopharmacology uncovered that drinking coffee has some remarkable benefits on mental performance. The researchers found that intelligent coffee intake leads to

improvements in alertness, improved reaction times, and enhanced performance on cognitive vigilance tasks and tasks that involve deep concentration.

Now, why am I stressing intelligent coffee intake? This means acknowledging the true U shaped curve of benefits and not going ham on caffeine. The data clearly shows that some coffee, a cup or two a day, and the accompanying caffeine is a great adjunct for improved mental performance. But going too far, starts to lead to diminishing return. So we want to make sure that we're getting an optimal intake of coffee. And again, not going overboard. But also coffee is best when it's not coming along with pesticides, herbicides, rodenticides, fungicides. These chemical elements are clinically proven to destroy our microbiome terrain. So destroying the very microbiome that helps to regulate our metabolism, regulate our immune system, the list goes on and on.

Obviously, we want to make sure that those things are not coming along with the high quality coffee that we're trying to get these benefits from. And also, what if we can up level the longevity and neurological benefits of the coffee by combining it With another clinically proven nutrient source. Well, that's what I do every day when I have the organic coffee combined with the dual extracted medicinal mushrooms. From Four Sigmatic, and if we're talking about optimal cognitive performance and the health of our brain, the protection of our brain, there are a few nutrient sources like Lion's Mane medicinal mushroom that pack these kinds of benefits.

Researchers at the University of Malaya found that Lion's Mane Has neuroprotective effects. Literally being able to help to defend the brain against even traumatic brain injuries. It just makes the brain more healthy and robust. So again, this combination of medicinal mushrooms, plus organic high quality coffee. It's a match made in nutrient heaven. Go to foursigmatic.com/model. That's F O U R S I G M A T I C.com/model. You get 10 percent off incredible mushroom elixirs, mushroom, hot Cocos and mushroom coffees. Again, that's foursigmatic.com/model. And now back to the show.

SHAWN STEVENSON: All right, so ultra processed foods, overall. All right. What are two other things for us to be aware of when we're making a decision about food? Like these two other things very likely have harmful effects on your brain.

MAX LUGAVERE: Yeah. Well, I think.. I don't like to fear monger, but I think you know everybody would be well suited to reduce their added sugar intake. Empty calories, no satiety benefit. A fairly good proxy of an ultra processed food when you see a lot of added sugar in a product. So I think, added sugar, I would add refined grains to that. I think that's a big problem. I ate a largely grain free diet. I think grains are a high octane fuel for high octane

activity. And, I don't think that grains are inherently harmful, but essentially just an energy source. And today, you'd be hard pressed to find anybody strapped for energy today in the modern world. I mean, almost 50 percent of us are not just overweight, but obese. I'm very deliberate about my grain consumption and most grains today, the way that they're consumed they're refined.

Even Ultra processed foods that have whole grain on the front of the package. Generally still a refined grain product. I oatmeal occasionally. I eat rice occasionally. I think they're fine foods, but they're not, they're certainly not nutrient dense foods. They're primarily a source of energy. So for most people, I would say, cutting back a little bit, I mean, that's probably would be a value. And this is really controversial and most of the medical establishment would disagree with this and the nutritional orthodoxy would disagree. But I do think that seed oils, industrially refined bleached and deodorized seed oils are a concern with regards to the brain. There's a great review paper that I implore anybody to check out who has, who wants to read more on the topic. But it was by Taha, who's a UC Davis researcher, who wrote a whole review article that was published in a peer reviewed journal. Posing some really interesting questions about what the overconsumption of these RBD seed oils, refined bleach and deodorized seed oils are doing to our collective brain health.

And it cites a trial that found that when people with migraines reduce their intake of high linoleic seed oils, they saw a reduction in migraine frequency, which is a neurovascular and neuroinflammatory event. We see that mothers on high seed oil diets, like diets that are high in linoleic acid that linoleic acid is passed through breast milk and there seems to be a cognitive effect in their offspring. We just don't know long term. I mean, the, these oils have free reign to enter the brain because they're. There are obviously fats and the brain is comprised primarily of fats and not just any fat but polyunsaturated fats, which these oils are. And I don't think we have any, we have animal studies that are, that don't look good.

Human outcome data is, I think, really weak and confounded by the fact that some very healthy foods in the modern food environment also contain linoleic acid. Just so that, to be clear, nuts and seeds are very high in linoleic acid. And I think that those are very healthy foods. I think there's good data on that. Also, we've been told for decades that canola oil and these, alternate cooking oils are healthy, right? They all are adorned typically by the heart red heart, healthy logo on it. So there's healthy user bias there as well. But we really have no idea how these oils are affecting our brain health long term.

And insofar as they're novel fats, they've only been in the human food supply for the past hundred or so years. I do think that you're better off avoiding them. That's a, I'll concede it's a controversial statement. But there's, I think there are a lot of important questions that need

to be asked and absence of evidence is not evidence of absence. And we just need to be, I think, a little bit more cautious.

SHAWN STEVENSON: Yeah. A very simple way to look at this when it comes to these seed oils is, are they an ultra processed food or not? Yeah. They are themselves inherently. There's it's an ultra processed food. So it fits under that camp. And yeah, man, it's so interesting. I love that you talked about how these newly invented oils can make their way into the brain and influence function itself. And the other aspect is what is this doing to your gene expression, right? Your DNA, both of us has talked with Dr. Kate Shanahan. And one of the interesting things, just tying in even inhalation and we'll put the study up for everybody.

This was published in the journal Inhalation Toxicology and found that just inhaling the fumes of these oils during cooking can damage your DNA, right? And as I'm sharing this study and I went to pull it up for the episode with Kate And I found there's another one published looking at inhalation for people who are cooks, right? At these different places different restaurants and who were inhaling these fumes on a regular basis and just seeing you know Notable DNA damage high risk of cancer and all this other stuff. And of course is gonna affect your brain as well. So yeah, there's at this point, we've got enough data to be cautious, but one of the things that I love about you is very similar, which is we're gonna, it's going to be in some stuff out here. Like we don't have to be neurotic about it, but let's make choices where we can to avoid that stuff because it's not a good human food.

MAX LUGAVERE: Yeah, totally. We also, I mean, everything is contextual and if you're, 50 pounds overweight, replacing a seed oil in a junk food with tallow or butter or what, that's not going to make it a healthier choice. Like you got to reduce your consumption of ultra processed foods. That's the lever that you need to pull, if you're 50 to 100 pounds overweight. But yeah, I do think that There's also no good reason to use them. I mean, there's so much more evidence on extra virgin olive oil as the primary cooking oil. It is the hallmark oil of the Mediterranean dietary pattern, which is lauded by everybody pretty much in the nutrition world.

And they're not using canola oil or soybean oil in the Mediterranean. They're using extra virgin olive oil. There's tons of, we now have meta analyses showing that it has an anti inflammatory effect. Whereas, these industrially refined grain and seed oils, they increase your vulnerability to. Oxidative stress. We also consume them as part we tend to over consume them and we tend to under consume Antioxidants, we should be consuming more of those via fruits and vegetables and the like. And so yeah, so I just think it's I think it's worth talking about and flagging for people for sure.

SHAWN STEVENSON: It's not a no brainer. It's a pro brainer.

MAX LUGAVERE: It's a pro brainer.

SHAWN STEVENSON: All right, that was just created here in this moment. All right. I want to ask you about this man. It just to see. I'm so grateful that I got to be there because I know that it wasn't just the process of creating it. But you sharing it with the world right you sharing it with your friends and family who were invited to that event and now it's had this major theatrical release. And as of this publishing, the release of this episode is going to be available for everybody to go and rent or buy. And it's a film that you created, not just about this subject with dementia, but the story with your mom, with you and your mother. And man, just going along in that journey, the way that you laid everything out. Man, it was just, it's an experience I'll never forget. And I'd love to talk about the film. What inspired you to create the film? I don't even know if you were, if when you started the film, you knew that it would be what it ended up being. So let's talk a little bit about that.

MAX LUGAVERE: Yeah. I mean, so the film is the first project that I undertook in this health and wellness space that I have been in. Honored enough to have had a seat at the table for the past decade, but this was the first project. And back when I undertook this documentary concept, I had a fraction of the knowledge that I have now. So when people watch this film, I mean, this film is really, they're not watching somebody who has written three books and has a podcast and just talk to the top, leading health experts in the world.

You're watching a scared son, who's seeing these. Insane symptoms develop in the person that means the most to them of anybody in life. And it's a film that I think anybody who's ever had any experience with dementia, but any kind of chronic disease in the family will relate to and find solace in. And it was just like a, yeah, a labor of love that's taken me 10 years to produce. And back, about 10 years ago when I first started on the project, I just, I wanted to. On the one hand, I wanted it to pay tribute to what it was that my mom was going through and to be an homage to her because she was the most important person in my life, and we've had an incredibly close relationship.

I'm the firstborn in a very small family. And whenever growing up, I had so much as a cough a few hours later, I'd find myself in the pediatrician's office. My mom was that hands on as a parent. And so when my mom became sick and she started to display these symptoms, which I had no precedent in my family, the lineage, which like My grandmother did not have dementia. My grandfather did not die of dementia. And so she was terrified and it was frustrating and it was, we were completely in the dark. We were not set up to understand what it was that my mom was now having to contend with. And so I decided to go with her to

every doctor's appointment. And what I experienced in those doctor's offices, I've come to call diagnose and adios. It was just like a battery of strange tests and, physician would titrate up the dose of a drug that she was on that, and hadn't been doing anything. So, maybe there was the suspicion that increasing the dose would do, would have more of an effect, which it never did. And I was just I became so disillusioned by that, that I decided to pick up a camera and to try to document what it was that she was going through.

And in tandem with that because I knew that I was creating a body of work. I would be able to use it as a calling card to reach out to scientists and researchers. Physicians whose work I had been reading in the primary literature. And for a civilian, like you might not necessarily get a response to your email, to, to one of these researchers, right? They're busy doing science of course. Creating a documentary in my view is a way to get in the room with these experts. And yeah, so that's what the documentary is. It's on the one hand, a really raw and intimate portrait of what it's like to have dementia. What it's like both as a patient, but also as a caregiver, as a family member.

And then on the other hand, we paint some very broad strokes in terms of how you might live to reduce your risk, possibly even, prevent the condition. And it's not a diet documentary. It's not a documentary that purports to have all the answers or, or advances a one size fits all diet. Cause I think a lot, there's a lot of fatigue today, especially with these like diet documentaries, they all seem to be propaganda for a different dietary ideology. That's not what mine is. That was never really the intent. But it does present this idea of prevention, I think in a really compelling way that these are conditions that begin not years, but decades before the presentation of symptoms. And if that is in fact the case, which the research tends to support, then we have a window of opportunity here.

And I wanted to make a really emotionally resonant film that would really kind of drive that point home. And I think that's what we ended up with. So hearing from you, not many people have seen it yet. So hearing you reflect on it is really special. Cause yeah, it's been like a 10 year labor of love there. I mean, there were times when I didn't think it was going to ever see the light of day, but I've been able to connect with a great production team and I'm super proud of it.

SHAWN STEVENSON: Yeah. You just said a couple of the things that make it so unique is it's giving us a A window into what that experience looks like with the patient with family. Because even though it's increasing in our population. Truly, like we don't really understand unless you have close proximity to something like that and to see how heartbreaking it is, number one. And number two It's getting us to ask different questions, right? Questions are really the answer.

And you just mentioned this, Diagnose and adios phenomenon and there's basic, standard of care and we know that in particular. And you said so many nuggets that I hope people don't miss, but if you've seen one case of dementia, you've seen one case of dementia.

Everybody's different and every single person has a different version of what this disease can look like. And so the standard of care just doesn't fit. It's ignorant. It's bluntly ignorant. And if we don't have better tools, ask better questions and look at prevention. And also like instead of this thing isn't working, let's just do more of that. All these ignorant things that you had to go through and to package this all up for us to see it is so powerful, man. And also I love that you mentioned too, this isn't a diet propaganda video, like this is a story. It's a story of a family, it's a story of this condition that is creating so much pain and suffering in our world today.

And it's so much of it is unnecessary. And yeah I'm grateful, over those, this 10 year process I didn't think about that when you said it, but I mean, I knew it watching it, but to say it out loud, like you were that version of you then. Which was a scared son and that's the feeling that I had, and kind of going on this journey with you to becoming who you are today. And being inspired by your mom and really turning this terrible situation into something remarkable. And also your mom is alive, it's keeping her memory, not just alive and well, but just it's, she's remarkable, and it's through you and through your work and saying her name, it's really powerful, man.

MAX LUGAVERE: Thank you, Shawn. Yeah, it's, I mean, I was a scared son. I was a frustrated son. It's all there. I mean, there are scenes that are really hard for me to watch in the film. I can detect my impatience at times in my voice. And anybody who's ever had any experience with dementia will relate to it. I mean, dementia is such a crazy condition. And so my hope for the film is that it's a wake up call to people, and that my mom, what she went through, what my family went through, isn't, wasn't in vain in so far as it can, has the potential to, to change people's lives who, who are open to it. One thing I've learned, a lot of people who I've connected with over the course of the theatrical release of the film. Getting to meet people in person in theaters around the U S.

Alzheimer's disease, which is the most common form. So a lot of people that I've encountered, they've had Alzheimer's disease in the family. Patients with Alzheimer's disease it's an, cause I'm not a clinician, so I haven't seen, face to face many patients with Alzheimer's, but they're not always aware of the cognitive changes that they're experiencing. It's the family members around them. My mom was acutely aware of what she was going through. She, it was acutely distressing to my mom and incredibly painful, incredibly traumatic. And that's all, documented in the film. And so I think that if there's, one really positive outcome of the release of the film I think for people would be that it's a. that it serves as a wake up call

because a lot of the times what I gather from my conversations with people who have had Alzheimer's is that, the family members that have it, sometimes they're not they're not aware and they're joyful nonetheless, which doesn't make it any less tragic of a condition.

It's kind of bittersweet. You're in a way glad that they're not that they don't seem to be aware of the breadth of the changes and the dysfunction that their family members might perceive. But nonetheless, this is something that we need to do something about.

SHAWN STEVENSON: Can you let folks know where they could? Get access to the film.

MAX LUGAVERE: Yeah. So little empty boxes.com. The film is called 'little empty boxes' and it's available to watch to rent at a little empty boxes. com. And it's we've got bundles we've got this great commentary track version of the movie. We've got a 17 minute exclusive featurette. They can watch about all about the making of the film. But yeah super powerful experience. And if people want to learn more, obviously I've got my books out, genius foods, the genius kitchen, and my podcast, the genius life, but I'm really excited for people to see this film. We put a lot of blood, sweat and tears into it and yeah, so I'm excited. Thank you for letting me talk about it.

SHAWN STEVENSON: Of course, man. Of course. It's really an honor. I want to ask you about a couple of things that you mentioned throughout this episode. And this is the hallmark of somebody who really cares about what they're doing and who has the audacity to ask questions. And you, over time, you change your position on things. That's, I think that's normal and natural, but we're operating in a field that is very dogmatic. We have institutions that are built around certain principles in science and just, latch onto those things relentlessly. And of course, there's a ton of reasons behind why that is, but most importantly, it's just being open to change, to adjust our perspectives. And you've changed your perspective on certain aspects of nutrition. Like you, you mentioned earlier, for example the intake of grains, right? Somebody might hear that and Maxine oatmeal, even occasionally, like what? So let's talk a little bit about your change of perspective on carbohydrates.

MAX LUGAVERE: Yeah, I think well inevitably people I think people want to put You know we personas in the health and wellness world into camps. That's unfortunately, I don't think that reflects on. Necessarily us as individuals so much as it reflects on just the nature of nutrition. There's all this tribalism in the nutrition sphere, and I think it's really unfortunate and counterproductive. But I, you know, my first book I wrote a lot about and I've talked a lot about the ketogenic diet. Because.. With dementia, I mean, there are no pharmacologic treatments that work, and you take a diet that dramatically changes the biochemistry of the brain in terms of it's energy production.

And that's really, I think it's something that we need to continue talking about. I mean, it's been a gold standard treatment for certain forms of epilepsy for the past century. It's now being studied in the setting of certain types of mental illness. Chris Palmer has come on the show and he's obviously talking a lot about this. Georgia Ede is another psychiatrist who has implemented the ketogenic diet, as a therapeutic tool in certain contexts. A therapeutic diet and there, has been, there is ongoing research looking at the ketogenic diet as a therapeutic tool for people with Alzheimer's disease and other forms of, and other neurodegenerative conditions. And so I, I've written about the ketogenic diet, I've talked about it quite a bit, but I never said that everybody needs to be on a ketogenic diet. Nonetheless, I think people have kind of painted me as a somebody who's maybe not these days, but in the past has been, a keto zealot, which I haven't been. But that's, I think that just the nature of the, of nutrition tribalism and but you know, I think I have for the most part for a while been on a grain free, low carb diet.

And as I think the value of. Resistance training and exercise and the science surrounding muscle hypertrophy has really become increasingly important to me. I've seen the value of carbohydrates, they're anti catabolic. They are a great fuel substrate for high intensity exercise. And for somebody like myself, who's really active and, I train every day. I've been I've adopted, I've reintegrated grain, whole grains, in moderation. I'm not saying that these are the, now the bulk of my diet in any way, because there's still a nutrient poor food. But if you look online at any fitness, expert bodybuilder, what have you. I mean, they're eating, Higher carbohydrate diets, and I don't think that carbs cause Alzheimer's disease or any of these kinds of conditions. The issue is once you've already, once you have the condition, if you have glucose intolerance, for example, then being mindful of your carbohydrate intake makes a whole lot of sense, right?

If you do have Alzheimer's disease, I'm not saying that the ketogenic diet in any way is a cure, but there have been some studies that have shown that for people, on the milder, end of the spectrum, like who maybe are newly diagnosed that there seems to be a quality of life improvement. At the very least, with the adoption of a ketogenic diet, it's a very restrictive diet. It's difficult to adhere to for cognitively healthy people, it might even be more difficult to adhere to for patients with Alzheimer's disease because actually, when a person develops Alzheimer's disease their preference for sweet foods actually increases. And so.. Yeah, but all that being said I you know, it's carbs are not the devil I think so long and so as long as we're prioritizing protein to support Whole body metabolism, muscle maintenance and the like.

You can kind of, You can kind of modulate your carbs and fats as you see fit according to personal preference and, we, and we also have a biological need for certain fats and, I think the latest research I've seen suggests about if, about 40 percent of our calories coming from fat helps to support hormone health and the like. And from there you can kind of titrate your

carbohydrates up or down depending on activity needs. That's kind of like my take. Carbohydrates do not cause fat gain. You can, if you're in a calorie deficit and you're eating carbohydrates, you're still going to lose fat. So yeah, so I think it's important to be really honest and transparent about that. When I first wrote "Genius Foods" I think there was a lot more data in support of the carbohydrate insulin model of obesity, which I'm sure you're familiar with this idea that carbs are like uniquely fattening because they stimulate insulin more than any other macronutrient. But there's been a lot of data to come out from Kevin Hall's lab that really has shown us that fat gain is ultimately a calorie problem. You just want to curate your food environment. So as not to compel you to overeat by sticking largely to whole foods, satiating foods, high protein foods and the like. That was a long winded answer, I hope.

SHAWN STEVENSON: It's good. It still comes back to. The missing part of the debate with the carbs and the fat which is ensuring you're getting enough protein. It's such a huge piece of this and also what I'm really hearing again is just eating for you your unique goals, right? So if your goal is for you, for example, it's being active and gaining a sustaining muscle mass. And just looking at who are the people who figured this out, you know for decades they've mastered this thing and You know being able to glean some insight from that. And also, again, we're all unique. So if you are dealing with the cognitive issue and having the ketogenic protocol as an option is phenomenal, right? But nobody said that this was the ideal diet for you right now, just trying to thrive as somebody who works out regularly. As kids and you drop, it's really just paying attention. And I love this because it's about getting these, Insights and then being able to piece together something that is uniquely for you. Man.

MAX LUGAVERE: And it's also like it's a you have to meet people where they're at and sometimes Carbohydrate rich foods are typically very easy to identify. And you've got to restrict something these days. So for some people it's like restricting ultra processed foods and sticking mainly to whole foods. For some Identifying high carb foods and cutting those out, you know, will be effective for others. It's intermittent fasting. It's creating a constrained feeding window. They're all roads to the same end goal, which is to create ultimately a calorie deficit. And there are some ways that are easier to get there than others. If you're trying to create a calorie deficit and you're still eating mostly ultra processed foods, that's going to be a miserable journey because we know that those foods are minimally satiating, right? But ultimately, like you do have to create an energy deficit in the body so that your body then dips into your fat stores. And there are many ways to do that, there are many ways to do that. They go, the key is really just to be able to pick a path and to stick to it.

SHAWN STEVENSON: Yeah. Bottom line. My man. Can you share one more time where people can check out the new film and also where they could just hang out with you. Get more information.

MAX LUGAVERE: Yeah. Thank you, brother. So little empty boxes. com check it out.

You can watch a trailer. And then I have my own podcast called "the genius life". Shawn's been on it a number of different times and we always have amazing conversations so you could start there. And then, yeah, I'm super active on Instagram at Max Lugavere.

SHAWN STEVENSON: Boom. My guy.

MAX LUGAVERE: Thank you, brother.

SHAWN STEVENSON: This is awesome. Thank you.

MAX LUGAVERE: Thank you.

SHAWN STEVENSON: Max Lugavere, everybody. Thank you so very much for tuning into this episode today. I hope that you got a lot of value out of this. Make sure to check out. Max's incredible film. You could check it out right now at little empty boxes. com. And I'm sure that it'll be streaming on other platforms as well to be able to rent, or I encourage you to buy the film. And make sure again, if you happen to miss our first episode this week, dedicated to the subject matter with Dr. Dale Bredesen, check that episode out right now. That is your next objective on this mission of getting educated in this subject, and also to be able to share this information with the people that you care about.

Because again, if things are continuing on as they have been going, it's projected, as Dr. Dale Bredesen will share with you, that 40 million Americans that are alive right now here in the United States are going to die from complications of Alzheimer's and Dementia. Alright, this is a very serious subject, and it doesn't have to be this way. His data is reflecting that this condition cannot just be halted, it can be reversed. And things are improving at a rapid pace, but yet the data is still tied up in peer reviewed journals, and being discussed by other scientists. But it's platforms like this that get this information into the hands of the people. And so I appreciate you so much for being a part of this mission with me.

If you got a lot of value out of this, please share this out with your friends and family. Of course, you can send this directly from the podcast app that you're listening on. Share the episode out on social media, and I appreciate you again so much for tuning in. We've got some epic masterclasses and world class guests coming your way very soon, so make sure to stay tuned. Take care, have an amazing day, and I'll talk with you soon. And for more after the show, make sure to head over to TheModelHealthShow.com. That's where you can find all of

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