Alzheimer's Prevention: The Early Markers of a Brain Transcript

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Introduction to Dr. Tom O'Brien and the summit

Welcome to this episode of the Reverse Alzheimer's Summit. And absolutely delighted to have a hero of mine here right now. Doctor Tom O'Brian is the author of How to Fix Your Brain.

His goal for you is making it easy to do the right thing. He's an internationally recognized, admired, and compassionate speaker, focusing on brain health, food sensitivities, environmental toxins, and the development of autoimmune diseases.

His audiences discover that it is through a clear understanding of how you got where you are, that you and your doctor can figure out what it will take to get you well.

Doctor O'Brien is considered the Sherlock Holmes for chronic disease, and teaches that recognizing and addressing the underlying mechanisms that activate an immune response is the map of the highway towards better health.

He holds teaching faculty positions with the Institute for Functional Medicine, as well as the National University of Health Sciences. Doctor Tom O'Brien, welcome.

Oh, thank you so much. And thank you for the honor to be a part of this very important summit. So you were just describing to me how you have a personal connection to this topic right now.

You have a dear friend who was recently diagnosed with a neurodegenerative dementia. Yes. Yes. And, he's in Chicago and, he's an attorney who has worked with, some top of the line people at Northwestern University.

And so they recruited him to the top people in neurology at northwestern. And I had to look him in the eye. I actually went to Chicago, to see my grandchildren.

And so I went to visit my friend, and I said, Hank, look me in the eye.

Personal story and urgency around dementia

You're going to die. And it's not a pleasant death. That's why Robin Williams decided to take his life. Right? And they have nothing, absolutely nothing that will slow down or stop this.

There are some things that they can give you that will help you feel a little bit better for a period of time. That's called a neutral pick. It means it helps your brain function better, but it doesn't stop the degeneration that's going on.

They don't know how to do that. You have to not put your toe in the water of what I'm telling you. You got to dive in headfirst or you're just not going to make it, man.

And I love you too much just to sit back and say, oh, it's too bad he just doesn't know so much. Make a critically important point here and that's that.

You can't dabble, especially when you already have symptoms present. So like your friend, he already has experienced symptoms. He has a diagnosis. And for him to get benefit from the types of approaches that you and I discussed, you really need to fully commit.

And we have the highest confidence when people are as comprehensive about addressing all of the factors that influence cognitive function as possible.

So I want to dive into those with you. What did you tell your friend Hank to do? Not follow my lead, but go to someone who like you and your clinic. They specialize and do nothing but this.

And this is what this is their bread and butter. They do it all day, every day. That you can't put your toe in the water with someone that's learned a little in a weekend course.

There's a couple of basic premises. I didn't ask you this ahead of time. Do you mind if I share a screen and show a couple slides, please? I'm going to make you the host here so that that's possible.

I love to see these. Thank you. Thank you. Let's see here. Give me a moment to bring this up. And. Good. Here we go. So I'm going to put this on full screen.

Let me do this. So this came out from Blue Cross blue Shield. Heather. Doctor has it have you seen this one? It's just a trial. A clinical trial and not sure yet? No. Okay.

It came out in February of 2020, and Blue Cross Blue Shield, arguably the largest For-Profit health company in the English language. They're not in they're interested in making a profit and having and and their thing is ensure rooms.

So they want to make sure they're making profits. But they said we got a problem here. And they showed that in four years. In four years, there was more than a doubling of diagnosis of early Alzheimer's in 30 to 64 year olds in four years.

But what's even more important when they broke it down by age bracket? Look at this. In four years, there's an increase in the age from 30 to 44. Just for all of our listeners who can't see your slides, I want to make sure that they see how radically that the numbers have changed between 2013 and 2017.

This doesn't even account for potential some of the impacts of Covid over the past couple of years. But even before Covid, there was this increase in dementia.

You would not think about early onset Alzheimer's disease happening in people between the ages of 30 and 44. And yet there's this massive increase, 407% fourfold increase in those numbers between 2013 and 2017.

That's right. I mean, that's just jaw dropping.

Early-onset Alzheimer's trends and warning signs

And this is the pandemic that no one is talking about, that it's all peripheral. But our brains are the canary in the coal mine. And what that means is, back in the 1800s, coal miners would take a canary in a cage down into the coal mines, and they'd listen to it sing.

And when they stopped, when when they couldn't hear the same, or if somebody went over to check, and if the canary had fallen over dead in the cage, they blew a whistle.

And anyone, everyone got out of their immediately because canaries are much more sensitive to methane and carbon monoxide. So the canary in the coal mine is a term that says this is an early warning of what's going on.

So when your brain is not functioning properly for you, it's an early warning. And we joke about this. I'm getting older. I don't remember the way I used to.

Ha ha. Well, how old are you? Well, I'm 42. No, that's not supposed to happen. You're not supposed to walk out into the parking lot and forget what lane you parked your car in, or where your keys are.

That's. Those are many messages saying something's not right here yet. And we're so scared of. You know, everybody knows someone that had a heart attack and survived and changed their diet, started exercising.

They look better than they've looked in years. Most of us know someone diagnosed with cancer that follow the protocols and put it in remission and feel great.

No one knows anyone with a brain deterioration diagnosis. That's doing great. I have the privilege. You do? That's right, that's right, that's right, that's right.

Thank you. But in the general public. And so it terrifies us. And so we we ignore it. We try to make a joke and forget about it. But you can't. You have to look for the early signs.

Now I'm going to show you just a couple more slides here because they relate. Well, this is the increase in those four years by state. And you can see which states are the most rapid.

And that is the, eastern Midwest and the north northeast, area. And also down in the south, Alabama, Florida, Mississippi, Texas, those states have the highest increase in four years in diagnosis of Alzheimer's.

But this is what I wanted to show. This is so primarily it's primarily important health and human services and the US government convened an advisory council meeting, three years ago to try to figure out what is going on with dementia, because by then, three major pharmacy companies had already closed their Alzheimer's research departments.

After spending billions of dollars, they realized we'll never find a cure for this. And so they laid off all those scientists, and they allocated the funds to, research and other areas where they could make a profit because they realize they're not going to make a profit trying to produce a drug for dementia.

And we all know now, especially in this summit, everyone's learning about the 36 holes in the roof concept of Doctor Bredesen and how critically important it is to address every single one of them.

But in 2019, this wasn't common knowledge. And so they put this advisory council meeting together in Washington and said, what's going on here? What is this?

And so what they they they do, they drew this drawing. And what they showed was that we have a normal level of antibodies to our brain tissue and to all of the other tissue in our body, our thyroid, our adrenals, our joints, that if you do a blood test to look at thyroid, that's a pretty common one that people look for.

For auto immunity, there's a normal reference range in the laboratory. Most labs it's about 0 to 42, 0 to 38, depending on the lab. And if you've got that normal level of antibodies to your thyroid.

And those antibodies are attacking your thyroid. But it's the normal level. Now, why would we ever have any antibodies attacking our own tissue? It's because, Mrs.

Patient, you have an entire new body. Every seven years, every cell in your body regenerates. Well, how does that happen? You've got to get rid of the old and damaged cells to make room for the new cells.

And a part of that process is antibodies to get rid of the old thyroid cells or the old cerebellum cells and the brain, or the old myelin cells, the saran wrap around your nerves.

You got to get rid of the old and damaged ones to make room for the new ones. So you have a normal level of antibodies. But because of how we live our lives and the things that we're exposed to, maybe you're sensitive to dairy, maybe you're sensitive to wheat, whatever it should be, and you cross a line of tolerance, and now your immune system is starting to make antibodies to those foods.

Or maybe you live near a freeway and you're inhaling the particulate matter. You can't taste it, you can't see it, you can't smell it, but you're inhaling it every day.

And we all know in the in the health care fields that if you live near a freeway, the incidence of autism and attention

deficit is much, much higher. It's because the brain is inhaling this.

And our friend Doctor Bredesen has told us that 60 to 65% of all Alzheimer's is inhalation. Alzheimer's is what you're breathing. That's gasoline on the fire in your brain causing the inflammation.

So because of all those exposures we get, we start making antibodies to the foods and antibodies to bacteria, antibodies to the environmental exposures we have.

And we get all of this inflammation in our body. And it's systemic inflammation. And when you have this systemic inflammation meaning it's in your bloodstream and it goes everywhere, it goes to the brain.

And when it goes to the brain, the inflammation in the bloodstream causes a breach of the blood brain barrier. It's called leaky brain. We all have heard of leaky gut.

It'll be a few more years before it's common knowledge, but everybody will be talking about leaky brain because there's so much science now that confirms, without a doubt, every single brain dysfunction that occurs has a prerequisite.

A leaky brain letting these molecules get into the brain that are the gasoline on the fire causing inflammation. And if you look at how long they said in the advisory council, how long is this going on?

20 plus years of no symptoms whatsoever. But the inflammation is killing off brain cells, killing our brain cells, killing our brains. But you don't feel it.

You don't have any symptoms of it. And this continues and continues for 20 plus years until you get to the stage of what's identified as mild cognitive impairment.

Now you can't find your keys or where's the car in the parking lot, and this kind of thing goes, or that person walking through, what's that person's name? What's that person's name?

This goes on for seven or more years. So now you're 25 to 30 years into all of this inflammation.

Inflammation, leaky brain, and the prodromal window

You're being exposed to that's killing our brain cells, killing our brain cells, killing our brain cells. And then this is the stage where it's the easiest to address.

This. And one of the markers, the earliest marker of inflammation in the memory center of your brain is when you're losing your sense of smell and when you're losing because your sense of smell was a life saving mechanism for our ancestor.

And we have the exact same body as our ancestors. And when they were walking down the trail, they better be able to smell saber tooth tiger and turn around and go the other way right away.

Or when they were looking for food, they pick something up. The first thing they do is smell it, then they nibble a little bit and then they eat it. But smell was the first warning of danger.

So when you're starting to lose your sense of smell, your your memory center is on fire and you start reading some of the articles. You know, if you go to the.com/smell and just I, I've left five articles there to download and take to your doctor and say, can we check my sense of smell?

Because, you know, sometimes doc, I think like I'm not smelling this very well or I'm missing something and I know we're going to get into this, but so much of the fear at this stage is that there's nothing that we can do about dementia.

So it's like, I almost don't want to know, right? A lot of people say this about their genetics is, well, why would I want to know if I'm at risk? Because there's nothing I can do about it.

Why would I want to know if I have early signs of dementia? Because there's nothing I can do about it. So take us through this. But then I want to make sure that everybody knows we're going to talk about what you have to look.

Absolutely not. You're absolutely right. And that is the common sense out there. There's nothing I can do because medicine is looking for the magic pill that's going to fix all the holes in the roof, and there is no such thing.

You have to look and see where is the inflammation coming from? Is it particulate matter? Because of where you live? Well, you need an air filtration system in your house and you need house plants.

NASA did the studies on house plants because the, the the astronauts in space were going brain Lulu. They couldn't function properly. And they realized that it was the phthalates and other chemicals in the air from all the equipment.

And so they were looking because house plants, two six inch house plants will absorb over 70% of the toxins in the air in a ten by ten room. Wow. And yeah.

And so, you know, if you go to the.com for slash smell, download the handouts. And here's all the house plants that NASA says will absorb toxins in the air.

And you know, and you get two house plants six inch houseplants for every room in your house. Well, I have ten rooms in the house. Well, ten times two is 20 and you get 20 house plants.

Oh, but I have a brown thumb. They're all going to die. Then you buy more that you just don't accept any excuses for not doing the little things that reduce the amount of inflammatory triggers.

And you just start learning a little bit at a time and you learn a little bit more and you learn a little bit more, which is what this summit is about, which is why I'm so happy, to be here today, because I have to tell all of you that are listening.

There is no magic pill. There will never be. I don't know, maybe in the future, but there is no sense of a magic pill on the horizon. When you have brain dysfunction, it's a snowball that's going down the hill.

And as you see in the cartoons, the snowball gets bigger and bigger and goes faster and faster. How do you think you're ever going to just turn the snowball around and go back up the hill?

It that that's irrational, but what you can do is you start to taper off the inflammation and you level it off, and then you start more anti-inflammatory and then you start getting better brain function.

And that's the way you take care of this is by. And so with Health and Human Services, they just showed that after seven years of this and this is the window of opportunity and what's called the prodromal stage before symptoms or when you have mild cognitive impairment, this is when it's not difficult to turn this around, but you just cannot put your toe in the water.

You need to dive in. You just need to look and say, well, this makes sense. And if it doesn't make sense, then you read my book and you read a little bit more and you start to understand these principles that your doctors have never been trained on.

They just don't know. It's not their fault. It wasn't in the textbooks. It's too new. The information is too new. And what they showed, well, this is the smell test that I was referring to.

It's a really simple test that tells you, am I losing my sense of smell? But after this state window here, now you get to mild Alzheimer's. The diagnosis that lasts usually a couple of years, and then it goes to moderate Alzheimer's

and then it's severe.

And, it's very, very difficult. When you get to one of those later stages. So you've got that window of opportunity of the prodromal stage for 25 years and the mild impairment of about 7 to 10 years.

So you got about 30 a year where you can really not with much difficulty, turn this thing around and get your brain back again. And the amazing thing about doing this, taking this approach that you and I both advocate for, it is that the side effects are improved blood sugar, improved mood, improved gut function, less hypertension.

Right then what you get is a healthier brain, yes, but also a healthier body. Less of a fall risk. Right? As we as we think about like creating a compelling future for ourselves as we age, we want to be able to have full capacity to engage with our grandkids.

Like you were just seeing yours, and you want to be able to get up and down off the floor with them. You want to be able to fully be present for them, play with them, be engaged at church or in your community, whatever that means for you.

Maybe it's your work that brings you meaning and purpose. And when we when we think about what we, how to create that, how to make sure that that's what our last decades look like, it really is about taking these, not dipping your toe in the water, but diving in headfirst into creating healthy cells.

So tell us or you may I may just comment that, as you just summarized that so beautifully, if you're in your 50s or 60s, the side benefits that she's referring to means you get to be a babe again.

You're a babe. You know, all of a sudden you you have a new life. Your body is functioning in ways it hasn't functioned in years. And, you know, I'm from an era where I can say, you know, you're a babe.

Way to go. You're taking care of yourself, and you're moving with grace on the planet. So I absolutely agree with you 100%. It's so exciting to talk about this because so many people, I think, just are in denial about what it's going to look like to be 70, 80, 90 years old because we think, oh, it's not going to happen to me.

It's like I'm either going to die before I get there or my kids will take care. You know, we make up all these stories or I'm just not even going to think about it.

I'm not going to acknowledge it because it's just too much.

Lifestyle changes, detox, and practical brain health steps

And because we're afraid. We're afraid, you know, it's just fear. And there's never been a venue of information that would suggest anything different is possible.

Right? So let's tell them how to do it. So how do we how do we get there? Where would you suggest someone start this is the way to get there is to first understand where did this come from?

If you don't know how you got to where you are, it's pretty difficult to direct where you're going in the future because you can't run away from it. You've got to go right back through it.

You've got to go right back through the food sensitivities. Or if you've got a, a gut that's out of balance. The Greek term is just biases means too many bad guys, not enough good guys.

And most of us have that today because of the foods. I'll give you this example. It doesn't relate directly to brain, but just know that it relates to every cell of your body.

This example in the Journal of the American Medical Association two years ago, they did a study of couples going to assisted fertility centers. And the only thing they compared these groups of couples to two separate groups.

Were they eating conventional fruits and vegetables, or were they eating organic fruits and vegetables? And they broke them down into quartiles, the lowest amount in the group, the next, the third and the highest for conventional, and then the same for organic.

And then they took the two highest groups of consumption of fruits and vegetables, whether it was conventional or organic. And they just compared those two groups.

Now, these are couples that everybody knows are spending tens of thousands of dollars to try to bring a baby into the world. You know that they need some help for one reason or another.

And the the Journal of the American Medical Association, arguably the number one journal in the English language. The editors of the journal wrote. They said this is an elegant study using sophisticated biomarkers to prove the point.

They don't say that in the Journal of the American Medical Association. Very often that's like giving it the seal of approval. Wow. This is an amazing study.

And look at the results of what they showed. So what did they show? They took the two groups, one group eating 2.7 servings of fruits and vegetables a day.

That's the highest group of conventional and then the highest group of organic 2.7 servings per day, which is not very much at all. No, some very embarrassing.

But that was the highest of these groups going to assisted fertility centers. Where did they find that when they compared the conventional group to the organic group, the conventional group.

Now these all people going through the same treatment protocols, spending tens of thousands of dollars, the conventional group had an 18% less likely hood of successfully having a pregnancy, 18%.

But this is the kicker. If they got pregnant, the conventional group had a 26% less chance of a live birth. They had miscarriages and stillbirths. This is like what?

What? And those types of studies are available. Looking at the liver function, looking at kidney function and looking at brain function, it's the amount of chemicals we're all exposed to every day that is throwing gasoline on the fire.

And two things have to happen. You have to reduce the amount of gasoline you're throwing on your fire. But then the second thing is, we all have accumulated so many of these chemicals in our fat cells.

We have to learn how to detox to get this stored garbage, the heavy metals and the pesticides and the insecticides that you don't get more fat cells after the age of 2 or 3, they just get bigger and smaller.

Well, that's why we're saying that when you dive in head first a year or two years from now, you have a very different body. You look different. You're down a dress size are two your belts having to go to notches tighter.

If you're a guy, you know that all these things start to happen without counting calories. Because you're detoxing, you're flushing, you're getting rid of the inflammation in your body.

So this is a major, major task to accomplish. That's why you can't put your toe in the water and say, well, I'll take some extra brain nutrients. You know, I'll do a little supplement and see if that helps, because they may help.

They may. That's called a new tropic. That means substances that help your brain work a little better. But if you still have all the inflammation going on killing our brain cells, killing our brain cells, killing our brain cells, that's why Aricept is never going to work with Alzheimer's.

And because some early studies showed, well, they did function a little better for a while. But the the inflammation

keeps killing off the brain cells.

So you have to reduce the inflammation in your body. Get house plants. Learn stop using plastic storage containers for food. Get glass storage containers.

Stop putting nail polish on because the fat leads to plasticizers in the nail polish are in your bloodstream in 4 to 5 minutes. So you get organic nail polish and you just have to learn all these little things.

That's what my book is about. And the subtitle of the book says it all, and it's not some cutesy subtitle. It is The Secret to Success. The subtitle of the book is called You Can Fix Your Brain, and the subtitle is just one hour a week to the best memory, productivity, and sleep you've ever had.

And that is the only way to be successful. Because I've already overwhelmed you. You don't know whether to get up, go buy a house plant or what's wrong with my nail polish.

You know, you don't know what to do, but every week you tell your family. Every week, Tuesday nights after dinner, Sunday after service, whatever it is, I'm going to allocate one hour to learn a little more about how to be healthy.

And then you go back to the book and you look for the three URLs for glass storage containers. Miles kimball.com, Amazon or whatever. The third one is, I don't remember.

And you go look at them online. And so those and oh I really like those. And you order three round ones and two square ones and one for the pie. And you pay with your credit card, hit send.

It took an hour, but you're done for the week, but never will you poison your family with minute amounts of phthalates again by storing food in plastic storage containers.

And then next week you do something in it. And just so everyone stops today, never again heat anything in plastic in the microwave. Ever, ever, ever. And if you've gotten the diagnosis or if you're really concerned, see with my book, you can like put your toe in the water and do a little bit every week.

But if you are already a little further down that scale, you need to go to her clinic and other doctors who are doing this kind of focused work so that you allocate one hour a day, perhaps, or one hour every 3 or 4 days.

So in a month, you've changed your lifestyle. You've changed your environment at home so that your environment's much cleaner. You aren't throwing gasoline on the fire anymore because as we've started this episode, I looked at my friend and I said, you're going to die.

I'm sorry, man, but if you don't do this, you're going to die because he can't just take 3 or 4 supplements and feel a little better and think that everything's okay.

It's not going to happen because that snowball is going downhill too quickly and it's got a momentum that doesn't stop on its own. And nobody is going to tell you this.

You know, we're all going to die. And yet the thought of dying with dementia is so heartbreaking because the suffering doesn't just impact you, it impacts your loved ones.

You're right. Because you, as you progress and severity of dementia, you become instead of an asset to your family where you can help, where you can contribute, where you're teaching your loved ones and your grandchildren, the next generation all that you've learned.

Genetics, epigenetics, and turning down inflammation

You're now a liability. You now become somebody who needs to be taken care of. And there is this potential to make decisions so that you and your family do not have to suffer in that way.

Right. And I couldn't agree more that diving completely and doing it early, as early as possible is when we have the highest confidence. And the other thing we really advocate for is getting a health coach.

I think that's such high value. So what doctor O'Brien has described as learning and once a day for an hour, once a week, for an hour digesting this really great information that he has compiled in his book.

And then what I'm saying is, if you want to take that another step further, is to get someone who can help you one on one, because we all come up with these reasons why we can't or, you know, these obstacles, but having somebody there to hold your hand up who maybe isn't a doctor, you know, it's sometimes it's hard to find a doctor in your state or who's been trained by Doctor Bredesen, who really knows what they're doing.

This is a new science, but there are a ton of health coaches, and they can work with you remotely by zoom. But individualize this process so that you can again, like just grab it by the horns and go for it.

Your doctor doesn't have the time to answer the questions that you're going to have lots of questions. You absolutely need a health coach and you don't want to pay your doctor's rate.

That's right, that's right. You you you absolutely need someone that walks this walk with you. And we've got programs like that, you know. And you do too.

I'm sure you know where, they meet with a health coach once a week or whatever the time frame is, because your questions are. Well, well, someone said that's felt is okay to eat.

You know, I know I'm sensitive to gluten, but they said spelled okay. No it's not. Here's the science on this, you know, so you need someone that knows all these kinds of things so that you can identify why, and it's not your job to have to do all the research.

It's your job to commit to the process. Once you find someone that you feel safe with and that you trust. Yeah. Fantastic. So genetics I want to go into the genetics of dementia, and whether or not you feel that genes are essentially a diagnosis, I think you are going to control that we have here.

Yeah. Doctors have been using the wrong language for years. You know, the, the, the holistic doctors. And I'm very guilty of this. And, you know, I'm on the faculty at the Institute for Functional Medicine.

And I said this on stage for years. You know, we want to turn off the genes of inflammation. You never turn off the genes of inflammation. It's impossible.

Genes operate on dimmer switches. And this is the secret to success. You want to dim down the genes of inflammation. You want to grab that dial and turn down the lights of inflammation, and you want to turn up the lights of anti inflammation.

So you want to turn down the genes of inflammation ramp up the genes of anti inflammation. So who's got their hands on these round switches on the walls in your body of your genes.

The control on your genes is the environment around the gene. We call that epigenetics. That's a geek term that we've used for years. But most doctors didn't understand what it meant.

It means what's going on around the gene, who's got their hands on the knob of the gene, ramping it up or calming it down. And so everything you do every time you eat a blueberry, you are turning up the genes of anti inflammation in your brain.

And you turn up the genes to make brain hormones called BDF. Every time you eat a blue berry. Now it's this amount. You know, it's just tiny, tiny little effect, but you do it.

You learn how to create a lifestyle where you're dimming down and ramping up all day, every day with your air in

your home, with an air filtration system in the house, plants with your clothing.

You find a green cleaners so you're not sucking fumes for days after they come back from the cleaners. With your kitchen utensils, with your food, you find organic food.

You have to learn all of these little things, because every single day, you know, every child, no exaggeration. Every 12 year old child, they check in.

Mexico City has signs of brain inflammation and early mechanisms of Alzheimer's. Every child, every dog that they autopsy has got beta amyloid plaque in the brain in Mexico City because the air pollution is so bad, inhalation Alzheimer's.

So you need to just learn how do I create the environment around my body and inside my body that's turning up the genes of anti inflammation and dimming down the inflammatory genes.

You don't want to turn inflammation off. Inflammation saved your life. It's excess inflammation that's a problem. So you want a gym down the excess inflammation and ramp up the anti inflamed genes.

That's how you think about genetics genetics. There are a few diseases where if you've got the gene for cystic fibrosis as an example there's not much that you know we can help people be more comfortable.

But there's not a lot. But there's no question about the genes of Alzheimer's. There is no question that we condemn them down. And then people live productive.

Valley Doctor Bridges published all 100 cases in one study, a hundred cases said, look, look at this one. Look at this one. Look at this one, look at this one.

Look at this one. And I could do that, you know, 94 more times and you know, but it would be overwhelming and boring to do that. But and there are doctors all over the world that are doing this now, and this summit is to give you this big picture concept.

You need this 30,000ft view. Okay. I want to dim down the genes of inflammation and turn up the genes of anti inflammation. That's the big kahuna. That's what you want to do.

And that's the major thing. You don't need to do anything else you know because you'll learn that okay. So I've got a lot of heavy metal. I've got mercury in my body.

And that's causing inflammation in my brain. So I have to get the mercury out because the mercury is turning on the genes of inflammation to try to protect me from the mercury.

And so you start to understand all of these little pieces, and you don't have to understand it all, just the big picture concept. Once you find someone to work with, who you feel confident, confident with.

So I think this in this way to inflammation comes up a lot. And I've had patients come in and say, well, it's inflammation that's causing this and that's the end of story, right?

And I always say, well, what's causing the inflammation? And so you talked about environmental toxins. You've talked a little bit about the gut and food sensitivities.

I want you to dive a little deeper and into that and kind of this process and how that creates auto immune processes, because the immune system is also going to drive inflammation, particularly when it is out of balance.

So again, why inflammation? Yeah. As our friend Doctor David Perlmutter began teaching all of us way back in, 2000, four, 2005, he said, stop treating the smoke and put the fire out, meaning inflammation is just the result of the gasoline that you're exposing your body to.

So it's the wrong concept to say, well, I need to get rid of the inflammation. No, the proper concept is where are the triggers that are causing my inflammation in my life.

That's what you have to address, whether it's foods or chemicals or accumulate toxins, emotional stress, all of that. Now to your question. Our friend Professor Alessio Fasano, who is head of my gosh, he's the director of mucosal immunology at Harvard.

Now, that means the lining of your lungs, the lining of your brain, the lining of your gut, the lining of your reproduced reproductive system. He's in charge of teaching doctors all about the lining of your brain.

He's the director of the Celiac Research Center. He's a professor of medicine at Harvard Medical School, professor of nutrition at Harvard School of Public Health, and the chief of pediatric gastroenterology at Mass General at Harvard.

This guy has five titles that any one title is a lifelong dream for someone at the top of their field. He's got five. We think he's going to win a Nobel Prize.

We truly do, because he and his team are the ones that identified how this thing occurs that we now call leaky gut. He identified it back in 1997, and they've been writing about it now for 25 years.

And, you know, of the 15 top causes of death in the world today, 14 of them are chronic inflammatory diseases. The only one that's not is accidental injuries.

Everything else is a chronic inflammatory disease.

Leaky gut, autoimmune disease, and root causes

So we're back to inflammation again. Professor Fasano shows us that there is a perfect storm that sets you up for chronic inflammatory disease. This is what they're teaching at Harvard Medical School.

It's so cool that this is what they're teaching. So there are five factors in the perfect storm that set up chronic inflammatory disease. Factor number one genetics.

And now you know you can't turn genes off. You can dim them down or you can turn them up right. But you don't turn them off. Right. But and but what controls whether you turn up genes of inflammation or turn down genes of inflammation.

Number two, environmental triggers. That's what we eat, what we breathe, what we think, all the toxins that are stored in our bodies, that they turn genes up, turn genes down.

The environmental triggers. That's number two. Number three, when you have too many inflammatory environmental triggers over a lifetime, let's assume you're sensitive to gluten.

As an example. You eat it every day because you feel fine when you eat it, but it's causing inflammation in your gut. It alters your microbiome so that you don't have enough of the good guys in your gut anymore.

And way too many bad guys. So that creates an inflammatory microbiome. Now, it's not just gluten, it's any environmental trigger. You can be sensitive to dairy or corn, or you're drinking Coca-Cola or whatever.

It should be. Right. You know, you know, Coca-Cola is good for is to clean the battery terminals on your car right? But number three is dysbiosis. Too many bad guys, not enough good guys.

Number four once again this is what they're teaching much more sophisticated. But at Harvard Medical School when you have too many bad guys and not enough good guys in the gut, it's an inflammatory environment.

And you create the leaky gut. That's number four. The leaky gut and Mrs. Patient, think of your gut like a tube. You know, think of a donut. If you could stretch a donut out one big long donut.

And if you could look down the center of that donut, that's your gut. It's about 20, 25ft long, starts to the mouth, goes to the other end, whines around in the center there.

You know, but it's one big long tube in the inside. The tube is lined with cheesecloth. So when you eat food and you swallow it in the donut, it's not in the body, it's in the tube.

So how do you get the food, the nutrients, the vitamins, the proteins, the minerals from the food that you eat through the walls of the tube into the bloodstream.

So we can go everywhere and be the raw material to make new bone cells and brain cells. How does that happen? You eat a piece of hamburger, you know, how does that chunk of meat?

You only chewed it 3 or 4 times. You should chew more, but you should chew more. But you swallowed it down. You got this big clump of ground meat now in there.

How does it get through the walls into the bloodstream? You're enzymes have to digest it. Break it down. Think of a pearl necklace, you know, and it proteins like a pearl necklace.

You're enzymes. The cut of snippets smaller and smaller. Snip snip snip snip snip until the pearls. You're down to each pearl called an amino acid. And that goes right through the cheesecloth into the bloodstream.

It's absorbed right through the gut wall. That's normal. It's supposed to happen. And now those proteins, those vitamins and minerals can go off into your bloodstream as just a highway.

Everything's going in the same direction, but it's just a highway. There's no lanes of traffic, everything fun. It's like bumper cars at the circus, you know, they bump into each other all the time, but it's all going the same direction.

But those bigger clumps can't get through until they've been snipped. Small enough. We call that digestion, right? Well, what happens when? Because the cheesecloth won't let the bigger clumps get through until they're small.

So small the pieces can go right through the cheesecloth. But what happens when you have an inflammatory gut? You tear the lining of the cheesecloth. That's the leaky gut.

When you tear the lining of the cheesecloth. Now, bigger molecules of the good food that you eat. But these bigger molecules get through the tears in the cheesecloth.

They're called macromolecules. They're too big and they get into the bloodstream. And your immune system says, whoa, what's this? This is not something I can make a new muscle cell with.

I better fight this. Now, you make antibodies to ground beef, or you make antibodies to tomatoes or to bananas or to it doesn't matter what it is, your immune system trying to protect you is going to fight this thing.

And just because it's not food that your your cells can use to make new, new, new cells. So that's number four. The leaky gut. And when the macromolecules get through into the bloodstream, it activates the immune system to protect you and make the antibodies to fight that food or that bacteria, whatever the macro molecule is.

That's number five. Systemic inflammation. This is the perfect storm in the development of auto immune diseases. It doesn't matter if it's Hashimoto's, thyroid or Parkinson's.

It doesn't matter if it's rheumatoid arthritis or multiple sclerosis. It doesn't matter if it's Alzheimer's or lupus. The gut is the gateway in the development of chronic inflammatory diseases.

So a critical component and and the title of an article that Professor Fasano wrote, for all of us doctors to read. And he's a very, very smart man. Obviously, and he's very careful of what he says.

But the title of the article was all Disease begins in the Leaky Gut. The role of the proteins on you land in the development of chronic inflammatory disease.

And so the message is, heal the leaky gut and you stop the big molecules from getting through. You reduce the systemic inflammation dramatically and your thyroid antibodies go down, or your myelin antibodies go down, and your M. S.

goes into remission or your brain starts functioning better or your skin starts clearing up. So this is not about Alzheimer's. I mean, this is an Alzheimer's summit, but this is about chronic inflammatory diseases.

This is the basic 101 that most doctors were never taught. And they're teaching it now at Harvard Medical School. And you get to learn it here. So what happens when you talk to a patient or one of the providers you've trained talked to a patient and we we assume they have leaky gut because they have some constellation of these things going on. How do we fix it?

Well, it's a it's a complicated process. The first step is stop throwing gasoline on the fire. That's critically important. What does that mean? You have to find out what foods your immune system is fighting right now.

I do not care if you don't get sick when you eat corn. If you're making high levels of antibodies to corn, that's systemic inflammation. And so you're done with corn.

I don't care if you've eaten wheat your whole life. If your immune system is fighting wheat, you're done with wheat. You have to calm down the immune system.

You can't shut it off, but you have to stop throwing gasoline on the fire so your immune system can calm down. Calm down, calm down. That's the message that we have to give to our immune system.

And you don't do that with drugs. You do that by not asking it to work so hard to protect you from what it considers a threat. And so it's not simple.

My first mentor was Doctor George Goodhart. And but he used to say the body is simply intricate and intricately simple, that these are simple concepts that are difficult to implement because you have to learn so much, there's no way around it.

It's common sense, but not common practice, unfortunately. That's right as well said. Well said. Now all of these things that we need to do to to get each of our cells functioning more optimally, functioning better is it's really comes from this sort of like ancestral idea.

How were we designed? Right. And what did our hunter gatherer ancestors, the vast majority of human evolution was spent as hunter gatherers. And then just in the last couple, 2 or 300 years, we've dramatically shifted how humans live. And then we sit here and scratch our heads and go, why?

Or do we have so much complex chronic disease going on? Like what could have possibly gone wrong? Right. And it's because we're sitting in front of TVs.

We're not prioritizing sleep. We're eating packaged, genetically modified, pesticide laden foods. We're working, overworking.

Stress, nervous system balance, and daily resilience practices

I want to kind of segue from there into it, talking about mindset and mental health and the this kind of person, pathetic, sympathetic balance, this dance that our nervous system does and how that can impact brain function.

Yeah. If you're watching this summit and you're concerned about brain function, you probably have a fair amount of anxiety and you're and you're creating some stress hormones on a regular basis because you're scared.

And that's understanding. Really understandable. When you read my book, the first principle in the book is that to address any chronic inflammatory condition, you have to look at it like a pyramid.

Well, a pyramid has three sides. No, it has those thoughts. There's a base that's your structure. And that's the home of chiropractic and exercise and posture and the type of bed that you sleep on and the pillows that you use.

All of those structural things can cause tremendous problems when they're out of balance. So you have to look at structure. You have to look at the biochemistry.

That's where most of us spend all of our time with what we eat, drink, breathe. And we think that's going to fix it. Well, it's going to help a lot. But you also have to look at the emotional or spiritual, and you have to look at the electromagnetic.

You have to look at four sides. When you've got a chronic inflammatory condition, one side that's usually dominant and or you get the most bang for your buck.

But you've got to look at all four. And the emotional or spiritual side is the one that most of us do not want to look at. We're fine. I'm fine, thank you.

And you know, it's the society that we live in. So you have to, especially because this topic is one that really scares people a lot. And so you have to have a way of nourishing your spirit, whatever that looks like.

Some people, it's religion. You know, I was born and raised Roman Catholic. I'm not practicing that now, but I understand my grandmother went to church every day when my grandfather was in the hospital.

And, you know, she felt that it really helped and she had more peace in that. Some people it's meditation, some people it's mindful walking, some people that you you must find a way to calm down.

The amount of stress hormones that your body is producing. And that doesn't happen by say, okay, I'm going to relax now, okay? I'm going to I'm going to relax.

You know, it doesn't happen that it's you. You find the exercises here. So here's an exercise. If you did this for one day, just one day. And notice how it works.

Set the alarm on your phone for an hour so it rings every hour whenever it rings. I don't care what you're doing. Just turn off the alarm. You know, for the next hour, turn it off and take five deep breaths.

One. And you do that five times. It'll take you 20s, maybe 30s. And then go back to driving. If you were driving, you know that's safe to do while you're driving.

Or if you're writing something or working with your kids, you know, cooking dinner or whatever it should be. But every hour, just remind yourself to take five deep breaths.

Notice how you feel at the end of the day, it's different. Every person that's purposely done this has said, yeah, I noticed a difference. You know, I forget to do it, but whenever I notice I'm stressed, I just take five deep breaths and I'll set my alarm, maybe for an hour to do it again. And it really helps.

So you can find the exercise that will work for you. But it's an important component to healing. To calming down the inflammatory cascade. You have to look at all four sides.

So your question about stress and stress hormones is critically important to include a protocol to address that. And I think everyone can find a protocol that works for them.

There is a gazillion out there if you look for them, but finding just one that you can do consistently, it's going to get you more bang for your time spent, your bucks spent, then kind of hopping around or starting to get overwhelmed.

Having this add to this stress, feeling like you can't do it all, or you can't meditate for four hours a day. None of us can, but lots of us can get benefit from something like you're describing a consistent thing.

We practice for 20s just bringing that mindful awareness back.

Closing thoughts and resources

And then also, I personally have gotten a ton out of kind of marathons that or like the weekend or two sprints rather than like a weekend deep dive into some sort of meditation practice and then bringing that back into your life.

And as you were describing, you even taking that that one hour and then having that impact, you are trajectory ready. If we're headed in one direction and we can just change by a degree once a week or five degrees over a weekend intensive, then our trajectory of where we end up health wise a decade later is very, very different.

Now, doctor Heather, I need to ask you how long where you dip your toe in the water of meditation before you did a weekend intensive, oh, decades, I'm sure.

Exactly, exactly. So nobody's going to do that tomorrow, right? But you start with baby steps and if you just do the baby steps, you know, oh, I, you know, I feel a little better when I do that.

Then it'll be easier to say, oh, I see that there's a weekend meditation thing at the local, you know, try that out, you know, but you, you have to have some wins.

Right. And so you do the baby with the 20s out of every hour kind of baby wins. And as you get more of those, you find that it's easier to do. Some of my friends I've done these weekend things and they're they're fabulous.

And I find that when I do them, I say, I'm going to do this once a month. Oh, you know, I'm going to do it once a month. And six months later I say, oh yeah, I got good or good.

Here's one. Okay, I'm going to do it again. Right. So, we have the best of intentions, but I always sign books the same. Because I think when people get it, it changes their lives.

Base hits win the ball game. That's it. One hour a week, base hits win the ball game. Doctor. Tom O'Brien. It has been such a pleasure to have you here.

I have learned so much from you. I know all of our listeners have as well. I feel inspired to keep swinging the swinging the bat, getting those base hits right now. Yes.

And I want to make sure everyone is super clear about where to find out more about your books and all that you have to offer. Oh thank you. Our website is the direct com the doctor.com just don't spell the word doctor out.

And for plants go the.com/plants for the smell. The.com/smell. The books. The discount for slash books. You know, trying to make it easy to do the right thing, you know, so that you can pick up this information and start, utilizing it.

And I, I've been there I've seen the valuable resources that you have available for free for many, many people. So I highly encourage all of our listeners to go there, get the benefit of that and get started.

Thank you very much for the opportunity to be here today. It's been an absolute pleasure.