Introduction to Dr. Tom O'Bryan

– Welcome to this episode of the Reverse Alzheimer's Summit. I'm absolutely delighted to have a hero of mine here right now. Dr. Tom O'Bryan 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.

Dr. O'Bryan 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. Dr. Tom O'Bryan, welcome.

– 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.

Personal Story and the Urgency of Action

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 routed 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.

You're gonna die and it's not a pleasant death. That's why Robin Williams decided to take his life. 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 nootropic. 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 gotta dive in head first or you're just not gonna make it, man. And I love you too much just to sit back and say, 'Oh, it's too bad and he just doesn't know.'" – So actually you 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 discuss, 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 wanna 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 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 of slides? – Please, I'm gonna make you the host here so that's possible.

I would 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.

Rising Dementia Rates and Early Warning Signs

So I'm going to put this on full screen, let me do this. So this came out from Blue Cross Blue Shield. Dr. Heather, have you seen this one? – Is this a clinical trial?

I'm 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 interested in making a profit and their thing is insurance, so they wanna make sure they're making profits, but they said, "We got a problem here." And they showed that 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 our slides, I wanna make sure that they see how radically the numbers have changed between 2013 and 2017.

This doesn't even account for potentially 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. 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 couldn't hear the singing, somebody went over to check.

And if the Canary had fallen over dead in the cage, they blew a whistle and everyone got out of there 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. We say, "I'm getting older, I don't remember the way I used to…" And, "Well, how old are you?" "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. Those are messages saying something's not right here yet and we're so scared of…

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 followed 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. – I mean, (indistinct). – That's right, thank you. But in the general public. And so it terrifies us and so 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 gonna show you just a couple more slides here because 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 areas 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 primarily important. Health and Human Services, 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 pharmaceutical 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 in other areas where they could make a profit because they realized they're not gonna make a profit trying to produce a drug for dementia.

And we all know now, especially in this summit, everyone is learning about the 36 holes in the roof concept of Dr. 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've put this advisory council meeting together in Washington and said, "What's going on here? What is this?" And so 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 tissues 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 autoimmunity, there's a normal reference range in the laboratory.

Most labs, it's about zero 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 gotta get rid of the old and damaged cells to make room for the new cells.

Reducing Inflammation and Environmental Triggers

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

You gotta 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 healthcare fields that if you live near a freeway the incidence of autism and attention deficit

is much, much higher. It's 'cause the brain is inhaling this and our friend, Dr. Bredesen has told us that 60 to 65% of all Alzheimer's is inhalation Alzheimer's, it's 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 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 our brain cells, killing our brain cells, killing our brain cells, 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.

Or that person walking too, 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 you're being exposed to that's killing our brain cells, killing our brain cells, killing our brain cells.

This is the stage where it's the easiest to address this. And one of the markers, the actually earliest marker of inflammation in the memory center of your brain is when you're losing your sense of smell.

Because your sense of smell was a life saving mechanism for our ancestors. 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'd pick something up, the first thing they do is smell it. Then they'd nibble a little bit and then they'd eat it.

But smell was the first warning of danger. So when you're starting to lose your sense of smell, your memory center is on fire and you start reading some of the articles.

If you go to the Dr.com/smell and just… I've left five articles there to download and take to your doctor and say, "Can we check my sense of smell 'cause sometimes, doc I think like I'm not smelling this very well or I'm missing something." – Well, I know we're gonna get into this, but so much of the fear at this stage is that there's nothing that we can do about dementia.

"I almost don't wanna know," a lot of people say this about their genetics is, "Well, why would I wanna know if I'm at risk because there's nothing I can do about it.

Why would I wanna 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 wanna make sure that everybody knows we're gonna talk about what you can do.

– Absolutely. No, 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 gonna 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 a 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 astronauts in space were going brain loo-loo, 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 'cause house plants, two six-inch house plants will absorb over 70% of the toxins in the air in a 10 by 10 room. – Wow. – And yeah, and if you go to the Dr.com/smell, download the handout, and here's all the house plants that NASA says will absorb toxins in the air.

And you get two house plants, six-inch house plants for every room in your house. "Well, I have 10 rooms in the house." Well, 10 times two is 20 and you get 20 house plants.

"Oh, but I have a brown thumb, they're all gonna 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 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 'cause I have to tell all of you that are listening, there's no magic pill.

There will never be… Maybe in the future, but there's 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?

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 show that after seven years of this, and this is the window of opportunity in 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. 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 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.

Detox, Supplements, and Practical Lifestyle Changes

And it's very, very difficult when you get to one of those later stages. So you've got that window of opportunity, the prodromal stage for 25 years and the mild impairment of about seven to 10 years, so you got about 30 years 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 is that the side effects are improved blood sugar, improved mood, improved gut function, less hypertension.

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

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

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

So tell us- – May I 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. All of a sudden you have a new life, your body is functioning in ways it hasn't functioned in years. And 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 gonna look like to be 70, 80, 90 years old because we think oh, that's not gonna happen to me.

I'm either gonna die before I get there or my kids will take care of… We make up all these stories or I'm just not even gonna think about it, I'm not gonna acknowledge it because it's just too much.

– It's because we're afraid. – We're afraid. – We're afraid. It's just fear and there's never been a venue of information that would suggest anything different is possible.

– So tell them how to do it. How do we get there? Where would you suggest someone start? – 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 gotta go right back through it.

You've gotta go right back through the food sensitivities or if you've a gut that's out of balance, the geek term is dysbiosis, 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 'em 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, that they need some help for one reason or another.

And 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. It's embarrassing, but that was the highest of these groups going to assisted fertility centers.

What'd they find? That when they compared the conventional group to the organic group, the conventional group, now these are all people going through the same treatment protocols, spending tens of thousands of dollars, the conventional group had an 18% less likelihood 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 still births. This is like what?

What? And those types of studies are available looking at the liver function, looking at kidney function, 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 the stored garbage, the heavy metals and the pesticides and the insecticides…

You don't get more fat cells after the age of two or three, 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 or two, your belt is having to go two notches tighter if you're a guy, 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. I'll do a little supplement and see if that helps." Because they may help, they may, that's called a nootropic, 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 gonna work with Alzheimer's.

Genetics, Epigenetics, and Turning Down Inflammation

'cause some early studies showed well, they did function a little better for a while, but the inflammation keeps killing off the brain cells, so you have to reduce the inflammation in your body.

Get house plants, stop using plastic storage containers for food, get glass storage containers. Stop putting nail polish on because the phthalates, the plasticizers in the nail polish are in your bloodstream in four to five 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 cutey subtitle, it is the secret to success.

The book is called, "You Can Fix Your Brain". And the subtitle is "Just 1 Hour a Week to Better 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 go buy a house plant or what's wrong with my nail polish? You don't know what to do, but you tell your family every week, Tuesday nights after dinner, Sunday after service, whenever it is, "I'm gonna 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, mileskimball.com, Amazon, whatever the third one is, I don't remember.

And you go look at 'em online and you say, "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 and 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 else. – 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 three or four days.

So in a month you've changed your lifestyle, you've changed your environment at home so that your environment is much cleaner and you aren't throwing gasoline on the fire anymore.

Because as we started this episode, I looked at my friend and I said, "You're gonna die. I'm sorry, man, but if you don't do this, you're gonna die." 'Cause he can't just take three or four supplements and feel a little better and think that everything's okay, it's not gonna happen 'cause that snowball is going downhill too quickly and it's got a momentum that doesn't stop on its own.

And nobody is gonna tell you this. – We're all gonna 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, the caregivers.

As you progress in 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, 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. And I couldn't agree more that diving completely in, 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 Dr. O'Bryan has described as learning, and once a day for an hour or once a week for an hour, digesting this really great information that he's compiled in his book.

And then what I'm saying is if you wanna 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 these obstacles.

But having somebody there to hold your hand who maybe isn't a doctor, sometimes it's hard to find a doctor in your state or who's been trained by Dr. 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, you're gonna have lots of questions. You absolutely need a health coach. – And you don't wanna pay your doctor's rate.

– That's right, that's right. You absolutely need someone that walks this walk with you. And we've got programs like that and you do too I'm sure, where they meet with a health coach once a week or whatever the timeframe is.

Because your questions are "Well, someone said that spelt is okay to eat. I know I'm sensitive to gluten, but they said spelt is okay." "No, it's not.

Here's the science on this." So you need someone that knows all these kinds of things so that you can identify. 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 wanna go into the genetics of dementia and whether or not you feel that genes are essentially a diagnosis? – [Tom] Yeah.

– What kinda control do we have here? – Yeah, doctors have been using the wrong language for years. The holistic doctors, and I'm very guilty of this and I'm on the faculty, the Institute for Functional Medicine, and I said this on stage for years, "We wanna 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 wanna grab that dial and turn down the lights of inflammation and you wanna turn up the lights of anti-inflammation.

So you wanna 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 BDNF every time you eat a blueberry. Now, it's this amount, it's just tiny, tiny, little effect, but 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 and the house plants, with your clothing, you find 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 'cause every single…

Leaky Gut, Autoimmunity, and the Root Causes of Disease

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 'cause 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 wanna dim down the excess inflammation and ramp up the anti-inflammation 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…

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's no question that we can dim them down and then people live productive.

Dr. Bredesen published a hundred cases in one study, a hundred cases. He 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 94 more times, but it would be overwhelming and boring to do that.

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 30,000 foot view.

Okay, I wanna dim down the genes of inflammation and turn up the genes of anti-inflammation. That's the big kahuna, that's what you wanna do, and that's the major thing.

You don't need to do anything else 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 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 with.

– So I think this word 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.

And I always say, "Well, what's causing the inflammation?" And so you've talked about environmental toxins, you've talked a little bit about the gut and food sensitivities, I want you to dive a little deeper into that and kind of this process of how that creates autoimmune processes because the immune system is also going to drive inflammation particularly when it is out of balance.

So again, why inflammation? – Yeah. Our friend, Dr. David David Perlmutter began teaching all of us way back in 2004, 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, they 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 accumulated toxins, emotional stress, all of that. Now, to your question, our friend, Professor Alessio Fasano who (laughs) 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 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 gonna 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 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 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.

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, but you don't turn 'em off. 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, 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 'cause 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 could be sensitive to dairy or corn or you're drinking Coca-Cola or whatever it should be.

Coca-Cola is good for is to clean the battery terminals on your car. 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, that'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, 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, 25 feet long starts at the mouth, goes to the other end, winds around in the center there, but it's one big, long tube. And the inside of 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, how does that chunk of meat you only chewed it three or four times, you should chew more, everybody 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? Your enzymes have to digest it, break it down.

Think of a pearl necklace, and if protein is like a pearl necklace, your enzymes cut it, snip it 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 in the…

Your bloodstream is just a highway, everything is going in the same direction, but it's just a highway, there's no lanes of traffic. It's like bumper cars at the circus.

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 sniped small enough, we call that digestion.

Because the cheesecloth won't let the bigger clumps get through until they're 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 ate, 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 cuc…

It doesn't matter what it is. Your immune system trying to protect you is going to fight this thing because it's not food that your cells can use to make 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 macromolecule is.

That's number five, systemic inflammation. This is the perfect storm in the development of autoimmune 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 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 quote leaky gut.

The role of the proteins zonulin in the development of chronic inflammatory disease.

Stress, Mindset, and Nervous System Balance

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 MS goes into remission or your brain starts functioning better or your skin starts clearing up.

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- – That's right. – What happens when you talk to a patient or one of the providers you've trained talks to a patient, and we assume they have leaky gut because they have some consolation of these things going on, how do we fix it?

– Well, 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 Dr. George Goodheart. 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, that's right. That's well said, well said. – Now, all of these things that we need to do to get each of our cells functioning more optimally, functioning better is it really comes from this sort of like ancestral idea of how were we designed?

And what did our hunter-gather ancestors, the vast majority of human evolution was spent as hunter-gatherers, and then just in the last couple, two, 300 years, we've dramatically shifted how humans live.

And then we sit here and scratch our heads and go, "Why do we still have so much complex chronic disease going on? Like what could have possibly gone wrong?" 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 overworking.

I wanna kind of segue from there into talking about mindset and mental health and this kind of parasympathetic, sympathetic balance, this dance that our nervous system does and how that can impact brain function.

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

And that's understandable, 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 has four sides." 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 gonna fix it.

Well, it's gonna 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 is usually dominant or you get the most bang for your buck, but you've gotta look at all four. And the emotional or spiritual side is the one that most of us do not wanna look at.

We're fine. I'm fine, thank you. And it's the society that we live in, 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. 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 she felt that it really helped and she had more peace in that.

Some people it's meditation. Some people it's mindful walking. You must find a way to calm down the amount of stress hormones that your body is producing.

And that doesn't happen if I say, "Okay, I'm gonna relax now. Okay, I'm gonna relax." It doesn't happen. It's you find the exercises. 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 for the next hour, turn it off, and take five deep breaths.

(Tom exhales) One. And you do that five times, it'll take you 20 seconds, maybe 30 seconds. And then go back to driving if you were driving, it's safe to do while you're driving or if you're writing something or working with your kids, cooking dinner, 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, doc, I noticed a difference.

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.

Small Daily Habits and Final Takeaways

" 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 is gonna get you more bang for your time spent, your buck spent, than kind of hopping around or starting to get overwhelmed, having this add to the 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 20 seconds just bringing that mindful awareness back.

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

And as you were describing and taking that one hour and then having that impact you, our trajectory, 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, Dr. Heather, I need to ask you how long were you dipping your toe in the water of meditation before you did a weekend intensive? – Oh, decades, I'm sure.

– Exactly, exactly. So nobody's gonna do that tomorrow, but you start with baby steps. And if you just do the baby steps, "Oh, 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…

Yeah, I'll try that out." But you have to have some wins. And so you do the 20 seconds 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 have done these weekend things and they're fabulous. And I find that when I do them, I say, "I'm gonna do this once a month." (Heather laughs) I'm gonna do it once a month and six months later I say, "Oh yeah, all right.

Oh good, here's one. Okay, I'm gonna do it again." (Tom laughs) So we have the best of intent, 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. – Dr. Tom O'Bryan, 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 bat, getting those base hits right now – Yes, yes, thank you. – And I wanna 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 theDr.com, the doctor.com, just don't spell the word doctor out. And for plants, go theDr.com/plants. For the smell, theDr.com/smell.

The books, theDr.com/books. Trying to make it easy to do the right thing so that you can pick up this information and start utilizing it. – And 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- – Thank you very much for the opportunity to here today. – It's been an absolute pleasure. (gentle

music)