You Can Fix Your Brain, The Journey to Healing Starts in the Environment Transcript

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Introduction to Environmental Brain Health

We're going to talk about the canary in the coal mine, which is this concept of how environmental factors really play a huge role in brain and mental health.

It's a massive, massive role. It's really not talked about a whole lot, but there's no one better to talk about it than doctor Tom O'Brian that O'Brien is.

Consider a Sherlock Holmes for chronic disease and teaches recognizing and addressing the underlying mechanisms that really activate an immune response for the brain.

He holds faculty positions at the Institute for Functional Medicine and the National versity of Health Sciences and Stream, and certified tens of thousands of practitioners around the world.

He's such a great friend of mine that he actually came down in 2017 and talked about this, this topic of of environmental factors in brain health at the Gut Brain Connection, summit that we have for doctors back in 2017, which is where we met in person.

And so, I'm super excited to introduce doctor Tom O'Brien on. I'm going to get into some really interesting topics very shortly, and I hope you enjoy the segment.

So welcome to the summit. Super happy to to have you and I seeing you again. Nice seeing you too. And thanks. It's a real pleasure to be here. Such a critical topic.

It sure is. I, you know, a few years ago, you were, very kind enough to come down to educate me and my doctors. The functional medicine grand rounds here in Houston, Texas, and the Texas Medical Center.

And at that time, and I'll never forget the slides that you actually put up. And you talk about sort of this canary in the coal mine and the imagery really stuck with me, ever since then.

And then when I, read your book, I understood what you really meant by that. And there's really a canary in the coal mine philosophy that I want. I would like for you to kind of talk about to our listeners.

So let's talk about that for a second. What is the canary in the coal mine and how does it really affect brain health? The, the the phrase comes from back in the 1800s, coal miners used to take the canary in a cage down into the coal mine with them.

And they had a little a couple of candles there for the bird. And they just listened to it sing. And if it stopped singing, someone went over to check.

And if the canary had fallen over dead in the cage, they blew a whistle and everyone immediately dropped what they were doing and got out of the mine because it meant there was a methane leak or a carbon monoxide leak.

And canaries are much more sensitive than humans, to their their tolerance is very, very low, to those gases. So the canary in a coal mine is a phrase that means the early indicators before you have symptoms, the, the the indicator is when you're stuck in the I feel fine syndrome, I feel fine.

There's nothing wrong here. Well, in reality, there is. It just hasn't accumulated enough tissue damage yet to cause obvious visible experiential brain dysfunction.

Canary in the Coal Mine and Early Brain Decline

So this canary in the coal mine is really, something that we should kind of pay attention to because, you know, I feel like there are symptoms of early brain issues, cognitive issues, but I feel like we're kind of taught to kind of shove it aside when maybe that's a stigma behind mental brain health.

Right? And so, yeah. And I feel like we just have to, like, keep pushing and pushing, pushing and going and going and going until one day we get diagnosed with this disorder that someone can put a diagnosis to.

And it's been happening for years. Right. Yeah, that's exactly right. You know, and we joke about it. I mean, everyone knows someone that had a heart attack and survived and they changed their diet.

They started exercising. They look better than they've looked in years. Most of us know someone who was diagnosed with cancer and went through the recommended protocols, put it in remission, and they're doing great.

No one knows anyone diagnosed with a brain disorder that's doing great and it terrifies us. So we joke about it, we giggle and say, oh, I'm getting older.

I don't remember the way I used to. Ha ha ha. Well, how old are you? I'm 36. No, that's not supposed to happen. But there's a problem going on that just hasn't killed off enough tissue yet to be obvious.

Was 36 a pretty young age? That's. That's younger than me. So the when does brain deterioration actually start happening? It begins when you lose tolerance to whatever the irritating agent is you're being exposed to.

Like, for example, we know that we're in the topic of gluten and wheat. Every single human has a negative reaction when it comes into the small intestine.

But not every single human's immune system is fighting wheat that we we have a tolerance for some of this. But when you cross the line of tolerance, you know your immune system is the armed forces in your body is there to protect you.

There is an army and a navy and air force and a marines and a Coast Guard. We call them IGA, IGA, AGM. They're there to protect you. So when your immune system gets activated to protect you, that's when you've crossed the line of tolerance and when it gets activated.

And what happens in this mechanism with brain deterioration is that you start getting collateral damage from the activation of the immune system, trying to protect you, but the activation of the immune system can create, symptoms and disorders that we put into this bucket.

You know, whether we call it Alzheimer's or Parkinson's syndrome or whatever it is, we call it multiple sclerosis. The immune system is doing something and that's it's reacting to I environment.

So, you know, you wrote this wonderful book, you can fix your brain. When did you write that? What you did you write that 2018? 2016, 2016. And so, in the book and it's funny that we're talking about the book because my, my eight year old, who can read very well now, can actually read the book.

She's been that book has been her room for for a long time because she likes the pretty brain pictures on it is different colors on it. And and I argue.

I argued for two weeks with Rodale for the cover for two weeks, on the title and the cover, but that's what I want. And so I'm glad that. Thank you for that.

That makes me feel good that the eight year old likes it. Yeah, well, she discovered it when she was five. It was in the back seat of my car and and going through it and then and she's actually in the other room right now and she's going through it.

And one of the things that she pointed out to me, is like the environment and she, she really cares about the environment. She's learning about it right now. Right?

Is that there's pollution, different places. There's mold. He's learning about mold in her elementary school, which is very interesting. I never learned that in my school.

And about how what are the symptoms of of of mold issues and, and and memory issues and attention issues. It's actually learning about that in elementary school and what this is great.

Right. And and she referenced her book and that was it was on the left. And this is, this is something that wish I would have learned, you know, as a doctor, which I did not know about.

Right. Is that where the where the product of our of our environment with the canary in the coal mine. Right. And that there's, and our immune system, even those they're supposed to life support us and protect us.

But the the downside is there are symptoms that kind of go along with the immune response. So how do we, as just people that not me as a doctor, but just how do we, all of us accommodate for the fact that we're kind of living in this, this toxic world?

And what toxins should we really look for? Oh, that's $1 million question. That's a, thesis. That question. Yeah. Is that's. I don't even know where to start.

The well, the most common sort. Well, let's back up. Yeah.

Inflammation, Tolerance, and Genetic Weak Links

14 of the top 15 causes of death in the world today are chronic inflammatory diseases. That the body is on fire. There's inflamed Asian 14 of the 15, which me and the only one that's not is in, unintentional injuries.

So when we go down, whenever that is hopefully a long time from now. But whenever it is, it's going to be from a chronic inflammatory disease. So when we understand that big picture.

Yeah. Then the question and the operating principle in life is how do I reduce the amount of inflammation in my body? So the question is where is the inflammation coming from?

And to answer that, you have to understand what is inflammation. Inflammation is your immune system trying to protect you from something, trying to protect you.

It's not an immune system. It's gone crazy. Rheumatoid arthritis is not a mistake of the immune system. Ms. lupus. It doesn't matter what all celiac, it doesn't matter what autoimmune disease and the the re.

The way that we learned about this was through celiac because it's the one autoimmune disease. There's no question we understand what the environmental trigger is.

There's gluten. And so the premise is you've got to get gluten out of your diet. You can't have even the tiniest little amount if you've been diagnosed with celiac.

Well, that same concept of environmental triggers activating an inflammatory response, trying to protect you is true with most every autoimmune disease they look at.

So the question is what are the environmental triggers? Our world is so toxic today. I mean, that's a wonderful, wonderful question. And it's my belief and this is my opinion.

Although there's a lot of good evidence that kind of feeds into it, that the reason that every auto immune disease today is going up 4 to 9% a year is because of the amount of these environmental toxins that we're being exposed

to, and we accumulate.

So for the doctors out there, there's two level of environmental triggers that you have to deal with. It's the patient's outside world. And that's what's on the end of their fork.

And what they're breathing primarily. And the cosmetics they put on their skin, that's the outside world, but also the inside world. How much of these toxins have we been accumulating in our body?

And we all know about heavy metal poisoning. And when when mercury or lead accumulates in our body. Well, that's true with the organophosphates. It's true with petroleum residue.

They all may accumulate in our body, which then activates the immune system. Trying to protect you because you've crossed the line of tolerance with the amount of, pesticides that are in your body.

Now, you know, the when you divide it into sort of the, the outside world and the inside world, I feel like there's another part of the inside world is genetics.

Right. So a lot of people say, hey, my mom had it, my grandma had it. I'm doomed to have it. Like, what do you say about that? Yeah. Oh like that. Your genes don't determine, Mrs. Patient.

When you pull it a chain, the chain breaks at the weakest link. It's at one end, the middle, the other end. At your heart. Your brain, your liver, your kidneys, whatever your genetic weak link is.

Now, that weak link is determined by your genes and by antecedents. How you've lived your life. For example, you eat tuna fish 2 or 3 times a week. Every week you got mercury poisoning.

That's just how it is in today's world. Tuna has mercury in it. So that's the antecedent. So your genes, the way I talk with doctors on this is you know, that don't ever say that you're going to turn off the genes or turn on the genes.

Don't turn on and off. They're functioning all the time. They operate on a dimmer switch. And what you want to do is dim down the genes of inflammation and turn up the genes of anti inflammation.

So yes, you have a family history of diabetes. That just means that that's a weak link in your chain. So don't pull on the chain so hard. Well what does that mean.

It means you learn how to keep your blood sugar balanced and not overtax your particular system. And its abilities. Right. So there's the genes can predispose to disease, but you're not close.

Yeah. Not not at the mercy of of of these genes. Right. Which is which is great for me. You know, I love I love my Apple E4 patients. That's the key for me. What. Yeah.

That's one of the genes, that make them vulnerable to Alzheimer's. Right. And, when we identify that, I sit down with them, and I say this. Now, I've got to read to you from the book of life.

This is the weak link in your chain. If you don't stop pulling on the chain so hard, it's very likely your last 15, 20 years of life are going to be hell.

And it's going to scare you quite a bit. And you know, I've got their attention then. And so then the goal is every year with our ApoE e4 patients, they redo their inflammatory marker tests to make sure they're keeping their levels of inflammation down.

They understand it doesn't matter how they feel, it doesn't matter because you don't feel bad until you've killed off so much tissue. It just can't function normally anymore.

So how they feel doesn't matter for this topic. Really. It's monitoring. It's like the dashboard on your car. You know,

there's two ways to measure the temperature and the engine of your car.

In most cars the hot light comes on the dashboard. When that happens, it's too late. Pull over. The engine's about to blow up. In other cars, they have a temperature gauge, and you can see the gauge gauge slowly start climbing into the red zone, which gives you a chance to do something about it before it overheats.

In our bodies, those are called biomarkers. And there are tests that you can do that are biomarkers that tell you your brain is on fire right now. Well, I feel fine.

It doesn't matter how you feel. Your brain's on fire killing off brain cells. And this will go on for 20 to 30 years before you ever get a diagnosis of mild Alzheimer's.

And so, if we separate looking at, for example, biomarkers or labs and there's two different categories, there's one set of labs, it is looking at your genetics like a protein for E3 whatever.

And then there's another biomarker which can go up and down like a dimmer switch. You're talking about. Right. And these are the inflammatory factors interleukin the TNF alphas and stuff like that as well.

Now a lot of doctors don't necessarily look for these things because they don't necessarily correlate with the disease at that time. But this is sort of like the smoldering gun effect.

Right. Or there's something always there that's that's there that we have to sort of identify. So what are what are some of the, the the labs that you see that could be very useful to determine a progression of disease.

Biomarkers and Advanced Brain Testing

There's just there is a classic I mean, it we we I personally got so excited when this laboratory opened. You know, we, we have to understand, in 1990, when cell phones were first coming out and you had a pack on your shoulder for the battery, you know, and way back in those days, if I had told you that, you know, 20, 25 years, I'm going to hold this little black thing in my hand.

And if I push on a couple buttons here and this little black thing, I can tell you within five seconds that the air particulate matter in spazio Italy right now is nine.

That's really good. It's a good day to go outside and exercise. But in Chicago is 54. That's a warning. Meaning don't go running today outside because there's a lot of toxic pollution patterns in the air.

And if I told you that and then I've got the Encyclopedia of the world on my hand and I can pull up any information I want in 5 in 5 seconds, you would have thought I was watching too much Star Trek.

The same thing has happened in laboratory medicine, where the technology has improved dramatically, and in medicine is called sensitivity and specificity of the tests.

And doctors don't know that the sensitivity and specificity of most of the tests they do is somewhere in the 70% to mid 80 percentile range, 70 to 85%, meaning it's wrong 1 to 3 out of ten times it's completely wrong.

And so I challenge doctors to do this. I say this is going to cost you a little bit of money, but next time you do a blood draw on your patient, take an extra tube of blood in the same blood draw, label it with a fake name, ordered the same test, send in both tubes of blood with ordered the same test and you have to pay for the second one.

You can't build their insurance or charge the patient, but then when the results come back, you see how accurate your laboratory is. It's and it's jaw dropping.

It's really jaw dropping when you see this. And I learned this back in, 1998, 1999. And I was so despondent, you know, I had because there's our evidence to show why a patient should take this particular action.

Was not accurate often. And doctors don't know when it's accurate and when it's not. Then Mayo Clinic published a paper in January of 2016. Joe Murray at Mayo, who is one of the most respected gastroenterologists in the world about celiac disease.

He's one of what I called the Four Horsemen. There are four of them. They're just the very best. And Joe Murray is one of them. He and his team published this paper about a new laboratory technology, and they referred it's called Silicon Chip technology.

And they referred to it and their words, a new era in laboratory medicine, because now the tests are 97 to 100% sensitive and specific every single time technology improves.

But hospitals don't know this and use these tests. There's so much politics in medicine, you know, and doctors sometimes have their hands tied as to what labs they can order by what's being supplied to them.

So we started using these tests and it was jaw dropping. And I did three patients with separate blood draws and or a second blood draw and paid for it myself.

And it was right on the money within 3 to 5% change, which is very acceptable in medicine. And after three I said, okay, that's enough. That validates for me that they are 97 to 100% accurate and sensitive.

So silicon chip technology has given us a test called the Neural Zoomer. Plus. And the neural Zoomer Plus looks at 53 markers of inflammation in your brain.

53 you know, for example, if you have elevated antibodies to herpes, the simple herpes one, herpes complex one, the cold sores that people get, well, they go away.

It's not a big deal, really. When you get a cold sore, it means your immune system wasn't able to keep this virus in check any longer, that it's rearing its ugly head.

Right. And antibodies to herpes. Just Google, just Google herpes and Alzheimer's. There's over 260 studies that the herpes virus may trigger the inflammation in the brain.

That's killing our brain cells, killing our brain cells, killing off brain cells. The excess inflammation, which is your immune system trying to protect you from too much of a virus that's in your brain tissue.

And so when you do the neural zoomer plus now they started with the neural zoomer that looks at eight markers, but the neural zoomer plus looks at 53.

When you do that test, you find out what's going on in my brain right now with 97 to 100% accuracy. The whenever we have these tests, the, the biggest, the biggest struggle, from a doctor standpoint is not just consistency, but yes, the ability to pay for them insurance companies and stuff like that.

But it's also important for, for us to kind of associate disease to the like, like you just said. Right. There's 200 some odd papers linking, linking, you know, herpes and brain health and neurocognitive, issues.

Right. But the biggest struggle is people think, well, the virus is the enemy. Well, the virus is not necessarily the enemy is your immune system is a product of the environment.

And there's things in your environment that's creating the viral outbreak. So I think in medicine, infectious disease, there's been this huge thing of saying, hey, take, you know, the cycle of your for the rest of your life and suppress this virus.

But that's not good enough because that's not the only thing that's causing it. Right. Yeah. And so and so we know for a fact that, well, what triggers these herpes outbreaks or even shingles is another type of herpes outbreaks, right?

We know that it's stress is decreased sleep, poor diet. We know it's alcohol and binge drinking. So all the things that deplete our immune system are the things that make them make this, you know, come out.

And I tell people that we it's not just about the virus, it's. What else are we missing? The virus. Yes. It's it's on your face is on wherever. But what else are we actually missing here?

Let's discover the things that we're missing. And I think that's where the neural zoom or plus can really come in handy. And I happened to visit this lab, which is vibrant America, back in 2017.

And, just south of San Francisco, there in the in their lab. And I was very impressed by what they actually got using these silicon chips. And one of my biggest takeaways is that with technology, you can actually look for everything.

And so the ability for them to even make these tests and by the way, this talk is not even sponsored by the company. This is a completely non sponsored talk with Vibrant America.

But the ability for them to make these tests lets us know that the technology is actually there for us to look at different things. And that's what's really exciting, you know.

So but but let's say someone gets a test done and they have all these inflammatory markers that are there right now. What's next?

Herpes, Immune Triggers, and Brain Inflammation

What what do you think is sort of the order of operation to get their immune system robust enough so that the brain is not being attacked on all fronts?

Yeah. It's it's exactly what you said. It's all of the things that have allowed in the example of the virus to rear its ugly head up. Is too much alcohol, too much stress, the wrong foods, not enough that we have to learn.

How do I take care of this machine? So instead of it driving like an old beat up Rambler or a beat up Volkswagen, it's it's operating like a Ferrari, you know, or even a good solid Oldsmobile is fun.

But how do I how do I support this body in functioning better? And, you know, of course, how you feel is a really good way of determining if what you're doing is working.

But the most common source of inflammation is what's on the end of your fork, that if there's a place you're going to start, it's by examining what you put into your body multiple times a day, every day.

Is this fuel on the fire causing more inflammation? Well, I only had one chocolate donut today. Usually I have two. I mean, that's better, isn't it? No it's not if the donuts are causing more inflammation in your body.

Right. So we we have to identify where is it coming from. Now I do want to give creams that sometimes people have a really hard time changing their lifestyle, and that you may baby step it.

You know, in the world of gluten problems, we sometimes say, let's just start with two breakfasts a week that are gluten free, and then next week let's see if we can do for breakfast a week.

Here's some recipes, and by then you've got the feel that you can do this successfully. Let's include one lunch a week so you may step things up. You may tear it up a little bit.

You don't have to go cold turkey on everything. But you can't say, well, a little bit. It's not a problem. It's just not true. You cannot be a little pregnant.

You can't have a little weight. Your body has crossed the line of tolerance. You can't do it. You just can't do it. Well, and and, you know, I think one of the biggest things that I think very few people talk about when it comes to

behavioral change is that, whenever there is a perceived necessity to change diet, any sort of change, can deplete their relationship either with themselves, with others that are around them.

Right. And the people see, yeah, dietary change as a threat to a relationship with the spouse or the children and stuff like that. That's something we see all the time. Right?

That becomes a big issue. Like how do you how do you guide people to sort of navigate around that? Yeah. With a coach, you've got to have a coach. I mean, doctors, who are handing out a sheet.

Here's a sheet for a gluten free diet or here's a sheet, a paleo diet. You can't do that. You have to have a health coach that's walking the walk with the person, maybe taking them to the supermarket and showing them all of the options that they have, because people just don't know.

They they just need guidance. So it's the understanding is holding their hand as they're walking in this unfamiliar territory. Critically important concept to be successful.

Yeah, yeah, I 100% agree with you there. Because for those people who enter our coaching programs, the center for Lifestyle Medicine, we tend to have a significant, much higher, rate of success and behavioral change.

And especially if they come in groups, they see a kind of other people doing it and they bring their families. So then the food change actually becomes an enhancement to the relationships rather than deteriorate.

That's what we really like to see and is so hard to do without a coach, you know, and you know, you, you, you said something there that's really important is that the science is coming out now from Cleveland Clinic, of all places, because they have a functional medicine center there that's doing fabulous.

But they, there are two studies. The first study showed they compared 5000 people that went through the Functional Medicine Center and the same number or a little more that went through the family medicine center at Cleveland Clinic.

And they found that the people at the functional medicine or functional medicine center, their quality of life was much higher. They felt so much more balanced life wise, not just the symptoms that they came in with.

By going through the functional medicine concept. That's the first study. The second study took people at the Functional Medicine Center and compared those that saw the doctor with those that saw the doctor and then went to group sessions. Yes.

And and the group sessions, people did so much better, even again, really noticeably better quality of life symptom relief. Because when you're with a group, you feel more comfortable.

And when, Kathy, next to you and the chair next to you said that she really had a hard time when she was at this restaurant. And you said I had a hard time at a restaurant last week.

You know, you share the experiences and know you're not alone, which empowers you to move forward more. Yeah. And. Absolutely. And and the less the feeling of loneliness, the better the outcomes and prognosis it is.

And we see this in multiple fields. We see this in people who go through hospice. They have metastatic lung cancer.

Lifestyle Change, Coaching, and Community Support

The less lonely they are, the longer they actually live in hospice, which is very interesting. And they outlive the people actually on chemotherapy. And it's a really brilliant study that was done.

We see this in PTSD patients. We see this in kind of the client patients. So the, the community, is really required,

so that we can develop like more nurturing relationships.

But I think the community also required for us to change the actual toxic environment, right? If there's someone within our community that's creating toxins, whether it's negative thoughts, whether it's smoking, right, whether it's, empowering people to, to drink alcohol more, etc., etc..

When these, when these things are kind of revealed and put into place, it takes a community to, to really change the actual environment. And so one of the things that I find always very valuable is not just talking about the environment or the food and, but what relationships are where people are in their lives at that time.

If, let's say we get these lives of neural zoomer, and then we have all these different planetary factors that kind of light up and say, your brain is taxed 80 different ways right now.

It gets very discouraging. So, and understand having people understand what are the factors that make them happy on a daily basis is it's really crucial to, to the process of healing, you know, do you find that as well?

Yeah, absolutely. And, it may be discouraging, but I say, oh, congratulations. Now, you know, now, right now, what's discouraging is a year from now when you recheck if it's still as bad as it was.

And that just doesn't happen. You know, in our practice or in your practice, that if you're applying the principles, you learn that that test result better be much better.

It better be, right. And, and and that you have to understand that what's taken and with Alzheimer's, we know you know, there was an advisory council that got together in July of 2019 that the government brought in the best minds in the world because they realized that just Alzheimer's will bankrupt Medicare, within the next 20 to 25 years, that the number of people that are getting Alzheimer's is going up and up and up and up and up.

And so they brought in all these experts. And what they said was that the mechanism of killing off brain cells begins 25 years before you ever have a symptom that inflammation is going on 25 years beforehand, and it's called the prodromal period.

It means before simple terms and that that's the window of opportunity. You know, when someone gets diagnosed with mild Alzheimer's, there's not that much tissue left to work with.

If you can slow down the progression so they get a few more a year, you're doing good. Very good. But if you can get to them when they're in the prodromal period, you can arrest and turn around this thing completely.

And there's lots of science to this. Right? So the idea of identifying the inflammation in the brain when you, according to your language, you feel fine, I feel fine.

Nothing on what women where did I park the car in at the shopping center. What what row is it in? You know, where where are my keys? And we joke about that kind of stuff because it's so awkward and it's scary.

So we giggle a little bit and then try and forget about it. But if you can work with a practitioner who understands these principles and identify the biomarkers, the temperature gauges on the dashboard of your brain is my brain on fire?

And then begin learning the tricks of the trade to turn that around. You'll be a very happy person. Yeah. No, absolutely. It's the the amount of data right now, with the work of, you know, doctor Dale Bredesen, who was on earlier in the summit, and doctor Heather Sanderson is that, you know, and they call all, Alzheimer's an optional disease at this point, meaning that there's there's an option in the prodromal phase.

In the phase, four before that to prevent that progression. You know, no matter what, what genes or people are really necessarily born with, you know, I have the you for gene and, and technically that's the Alzheimer's gene, but it's going to really allow me to empower myself to decrease my inflammation over time and take care of things that I

need to take care of in this sort of program will phase right.

Let's switch the topic a little bit. From memory in Alzheimer's and brain deterioration to the mental health, and especially addressing, which I think it's the hallmark during the prodromal period, which is attention deficit in the young population.

We're seeing this a lot right now, and we're seeing this in, inner city kids more than anywhere else with, a lot of environmental toxicities and mold and stuff.

We bad as well. So there's a lot of parents that are listening to it. Even grandparents I listen to that are, that are worried for for their kids. Right.

What what what what do you think is causing that trend and when what do we do about it? Well, especially where you are in Texas because of all the floods that you guys have had in the past?

We have one now. Yeah. It's raining. The the amount of mold, that people are exposed to is very high and, you know, it was Dale Burleson that told us that 60 to 65% of all Alzheimer's is inflammation of I'm sorry, inhalation Alzheimer's.

It's what you're inhaling that goes right up to the memory center of the brain. Yeah. And and so we need to make sure our air is as clean as possible.

And that's an overwhelming topic. When when you live in a city, but inside your home, there are simple things you can do. You know, it was NASA that did the studies on this because their astronauts were going loopy in space.

They never talk about it with the press, but they were saying, what's what's wrong with this astronaut? He's not thinking clearly. And they realized it was the amount of fell leaves in the air and toxic chemicals from just the the capsule that they're in, the station that they're in.

It's all metal and plastic and plastic. Oh. Gases into the air. Yeah. So NASA did the studies to identify houseplants. And they found there are number of different house plants that absorb over 70% of the toxins in the air.

Two six inch house plants in a ten by ten room absorbs over 70% of the toxins in the air. So you you you go to my website the.com/plant and you download the handout.

And there they are. Oh I've seen those plants before. They're not expensive. Plants are really simple. And you don't need, big pots of them. Just little six inch ones is enough.

You put them in a room and they're going to absorb the toxins in the air.

Alzheimer's Prevention and the Prodromal Window

And at night time, they produce oxygen back into the air again. So you put two or 3 or 4 of these in your kid's bedroom, at, so that at night they're sleeping in clean, cleansed air.

And as you read my book, you understand the other toxins in the air. You know, when you go to bed at night and you pull your sheets up and the blanket over you, those sheets and blanket are soaked in flame retardant chemicals that out gas into the air for a year. Yep.

Minor amounts are. You can't see it, you can't smell it, you can't taste it. And it's not toxic to you. That's how the chemical industry got away with this stuff, is that you have to prove that the chemicals in the amount that you're exposed to in a 24 hour period is toxic to humans, and it's not.

But we inhale this stuff and it accumulates in our body. If we don't break it down and get rid of it. I'll give you one example. Chicago 2016 346 pregnant women in the eighth month of pregnancy.

They collected the urine and they measured the urine for five phthalates. Those are chemicals used to mold plastic. And there are many more, but they just measured five, and they put them into categories of the lowest, the next, the third and the highest.

They waited seven years. And when the children of those pregnancies turned seven years old, they did Wechsler IQ tests on them. Now the official IQ test.

Now there is nothing in medicine. That's all. Or every but this was every every child whose mother was in the highest category of phthalates and urine and pregnancy, compared to the children whose mothers were in the lowest quartile, every child in the highest quartile, their IQ was seven points lower, 6.7 to 7.4 points lower.

Now that doesn't mean anything to anyone until you understand a one point difference in IQ is noticeable. A seven point difference is the difference between a child working really hard, getting straight A's in school, and a child working really hard, getting straight CS in school.

This child doesn't have a chance in hell of ever excelling because their IQ is seven points lower. Then you go back to Google and you type in phthalates and neurogenesis.

And here come the studies that gel age inhibit brain growth and nerve development. But there's no evidence that the amount of phthalates that you get when you drink water out of a plastic water bottle and you get violates, there's no evidence that that's toxic to you.

It's not. It's not, but it's accumulative in the body over time. And so you learn about your sheets and your blankets. You learn about these five year old girls that are painting their ten little fingers and ten little toes.

And in 4 to 5 minutes, the phthalates from the nail polish are in the bloodstream. But there's no evidence that that amount of Fallot is toxic to humans.

That's how they get away with it. But give me 25 years of that girl doing that once a week, every week. And now she's accumulated in a fair amount of phthalates in her body.

And here comes this science that I just showed you the study that I just referenced, that we're exposed to so many chemicals that we take for granted today.

We think it's normal. You're a kitchen cabinet. That's if they are not solid wood there. Press board the nightstand next to the bed. If it's not solid wood, it's press board.

They're soaked in formaldehyde and the formaldehyde out gases into the air. When you learn about the you put your leftover food in a plastic storage container in the refrigerator.

The next day, the chicken's got phthalates in it from the plastic container. So what do you do with all this overwhelming stuff? What you got? You go to buy book. You can fix your brain.

And there's three URLs for glass storage containers. And you order glass storage containers and you never poison your family again with these, my new amount of toxins.

Mold, Toxins, and Childhood Attention Problems

And you look for organic nail polish, and then you look for house plants and you just start learning the little things you take baby steps. And over time, in six months, you've really changed so much of your family's environment.

They're being reduced to much less of these toxic chemicals. Now. It's amazing. For those of people who are wondering, we're talking about the book is called You Can Fix Your Brain.

And then actually the second part of the title is just one hour a week to the best memory, productivity, and sleep

you ever had. So that guess that's what we're talking about an hour a week taking care of the things in your environment that you can have really saved yourselves and your and your family.

And I do think this is why we're seeing this massive explosion of of mental health and attention deficit and the prescription of like, Vyvanse and Adderall and a lot of the methamphetamines are kind of all over the place now.

It's very commonplace. You mean in the pre-teen population? And I have three little daughters and and, really it really, makes me a little irritated sometimes to see a day.

Well, you know, once we've kind of throw some vyvanse on and we'll call it a day, right? Yes, people do improve, but it's like stepping on the gas tank and nothing's filling the tank.

And and the fuel that's in there is pretty dirty. And it's not cleaned out. So the exhaust fumes are going all over the place. And that's what's happening to brains.

You know why? A of course you know why. But for our listeners, why do they give speed to kids to slow them down, which is what Ritalin is and Adderall is.

Why do you do that? Well, I had 13 cars that cost me less than $100 when I was in undergrad. I had no money. Right? Yeah. So, you know, you buy a car for 75 bucks and they get you to work for a while until it dies, right?

Many of those cars needed a tune up. You never get a tune up on a $75 car. Cost more than the car, right? But at at the red light, those cars would stall.

And so how do you stop a car from stalling in the red light? You put it in neutral or you push in the clutch and you give a gas, you rev it up and then you're not hot, right?

But then when the light turns green, you drop it and drive and off you go. That's what they're doing with our kids brains. They're revving the engines to slow them down because the kids brain is called hypo perfusion.

It means a lack of blood flow. And it's so very common from food sensitivities. Environmental toxins in the air cause this is so very common that the amount of blood flow into the brain is not the way it's supposed to be.

So you cross your legs for two hours, cross your legs two hours, then stand up and run. You can't. There's no blood in your legs. You know, it's the same thing for kids, brain.

Give them. Give them, cherry in that Cheerios. Trix. Because Trix are for kids. Give them Trix for a breakfast, a sugar cereal, and then send them to school to learn they can't.

There's not enough blood in the brain. And so they're all over the place. They date, they can't focus. They can't sit still. And so what do we do? We give them speed that slows down that that gets their brain working more regularly.

And then they can calm down in the classroom. Very common to see. Right? Yeah. And from an imaging perspective we can actually see this happening. You know, Doctor Daniel Eamon was on another part of the summit, and we're just talking about the spec scans and these spec scans of the brain is actually looking at brain perfusion.

And if you look at, teenagers brain with ADHD, they have a lot of blood flow issues, almost like a little holes of area, little wells with waffles, not really getting to, in the brain.

And then we do something here at Texas Center for Lifestyle Medicine called quantitative EEG analysis. And what we see is that these people with frontal and temporal, frequencies, they just slow down to a crawl called theta beta ratio, and they just kind of throw slow down to a crawl.

And that's, that's a diagnostic, marker and biomarker for attention deficit. But it's also a once again is blood flow. So

these are actually things that we can actually see in the brain.

I don't know where I am. Right, right. You measure for measured and and it's and when you throw medicine on it it doesn't get better. It gets it can get worse. Right.

And and that's what we're doing with the, the, the, our kids these days attention deficit and Alzheimer's population and even Parkinson's and stuff like that.

That's what we're doing these days. Right? We're driving some neurotransmitter process. And the labeling is that, hey, somehow your brain's not balanced for one reason or another, or your brain is balanced quite nicely for the toxic environment that you're in.

So, you know, to take out the toxic environment. Right. And so and that's, that's why I think your book is very important that you can fix your brain.

And that's why I also think that from a perspective, of even just me practicing medicine and seeing the patients, it's very obvious if you if the person is not necessarily willing to change the environments that they're in, the prognosis is not great.

It doesn't matter what supplements they do, what doesn't matter what what they, you know, what diet they change if they're in a super moldy environment within an environment with a lot of, like VOCs, off gassing, it's really hard to change anything.

And, and the environment is, is not just creating the products in which we are as the brain, but our whole body.

Practical Steps to Reduce Environmental Exposure

You know, as you said, these plates and all these organic chemicals, when we inhale them, when it gets on our skin, it's being perfused into the most fatty tissue that we have.

So it's not just fat, but the brain is a lot of fatty tissue. And it goes into there and it stays there and it's so hard to get out. And so, I just want people to understand when they're listening to our segment here, is that the importance of getting out of an environment that has not served you well, because the diagnosis you have is, is absolutely crucial, you know.

Yeah. And I, I agree with everything you've said. And I think the a summary point I would make is you can fix your brain. That's why I argued with Rodale for two weeks on the title, but because they wanted some of that.

No, no, no, you can fix your brain. You can fix your brain. And then the subtitle, as you mentioned, can the Secret of success is one hour a week. You just apply one every Tuesday night after dinner.

Don't bother me. I'm learning more how we can be healthier as a family. And then you go online to find the glass containers from the URLs that I give you in the book, you know, you go in Miles kimball.com and Amazon.

Jo oh I like oh those are really I like those. And you order three round ones and two square ones and one for the pie. And you pay with your credit card, you hit send.

It took an hour to do that. Nobody's got a free hour. It took an hour but one hour a week. And the next week you do nail polish, and then next week you do house plans, and then next week you do carpets.

And you just every week, one thing. And in six months you've nailed this. You've completely changed the environment that you and your family are in. Yeah, what an amazing concept.

And it's like exercise right. That these these effects kind of compound. You don't have to go all at once that. Yeah that's amazing. Well, awesome. Well we're going to conclude this by first of all, and thank you for being on.

And second, how do people find you more about what you have to say? Oh thank you. The website is the dealer.com the doctor.com. Just don't spell the word doctor out.

Lots of educational videos and lots of handouts. You can download, educational programs. They're there for you. Our goal is to help you. You know what's really interesting?

The the theme of the doctor that.com is making it easy to do the right thing. So it ain't easy to change your lifestyle. So we're doing our best to make it easier for you by giving you all of the information and that's all available to you.

There's lots of downloads that you can get there. Awesome. Well, thanks for being on. What a pleasant, discussion. And my biggest takeaway for people kind of listening to this is true.

You can fix your brain. I've seen it happen to Brian, seen it happen in many patients. And not only that, if you're a caregiver listening to this, I will like to just, you know, first of all, props to you for being a caregiver.

But you also have to take care of yourself and your brain as well. Amen. So yes, yes. So thank you very much. Thank you. For.