



Powerful Tools to Optimise Brain Health

Guest: Dr. Tom O'Bryan

Alex Howard: Welcome everyone to this interview where I'm very happy to be talking with Dr. Tom O'Bryan. Welcome Dr. O'Bryan, thank you for joining me.

Dr. Tom O'Bryan: Thank you so much. It's a pleasure to be with you.

Alex Howard: So before we jump into this topic, let me just give people, I'm sure many people already know who you are, but let me just give your professional background.

Dr. O'Bryan is considered a Sherlock Holmes for chronic disease and teaches that recognizing and addressing the underlying mechanisms that activate an immune response is the map to the highway towards better health.

He holds teaching faculty positions with the Institute for Functional Medicine and the National University of Health Sciences. He has trained and certified tens of thousands of practitioners around the world in advanced understanding of the impact of wheat sensitivity and the development of individual autoimmune diseases.

He's also the author of the books *The Autoimmune Fix* and *You Can Fix Your Brain*. And I know that some of what we're going to talk about today is covered in particular in the second book and I think a great place for people to go to dive deeper.

So firstly, thank you again so much for joining me, I really appreciate it. Particularly from a rather beautiful surroundings, I appreciate you taking the time away from what looks like paradise.

Dr. Tom O'Bryan: Yes, thank you. It's a pleasure. And yes, we currently are quarantined in paradise. So there's no complaints here.

Alex Howard: Yes very good. So I think as a starting point, we're going to be talking about particularly brain function and some of the key principles and areas that can impact that. And I thought maybe as a place to just open this up a little bit.

What are some of the factors in our environment, particularly a toxic environment that affects our brain?

Dr. Tom O'Bryan: Well, that's a big, that's actually a PhD thesis question.

Alex Howard: I believe you can cover it in an hour.

Dr. Tom O'Bryan: But I'd begin by saying, if we have an understanding of how new knowledge, new revelations are integrated into healthcare, we can then appreciate the value of events like yours. Because events like yours do not go through university research and university teaching. What do I mean by all that?

Well, a group at Cambridge published an article, they looked at 23 papers on this topic and they summarized, how long does it take for translational research? Now, what that means is it changes the way you think. That's what translational research is, how long does it take before the first papers on this very valid concept are actually implemented in clinical practice? For example, when a team wrote that, "I think cholesterol has something to do with cardiovascular disease."

The answer was how long before the doctor down the street was checking cholesterol with the idea of preventing cardiovascular disease? The answer is 17 years. That's the average 17 years of going through the traditional health care concepts. Being filtered by minds that were, state of the art minds in their day with the newest information. But then they hold on, many hold on to that information, that was when they went through their medical education, or their research education, their PhD in whatever field of expertise they are.

That's their foundation that they screen everything from and sometimes you have to be willing to shift your foundation. And that's the purpose of this event, is for the general public who are watching all of these great speakers share pearls, to shift the way that they think about their health for them and their families. So the average is 17 years, that's just kind of a jaw dropper itself, that's the average.

Alex Howard: It is. I think often for people who are suffering from either medically unexplained illnesses or things like different forms of trauma, and they go down the typical medical paths. They don't then find answers and they end up finding themselves in less conventional parts.

And I think often their big question is, well, why isn't this being practiced by the, in the U.K. let's say the National Health Service doctor that is that I went to see, or in the U.S. the standard medical path? And I was just saying to you before we started recording that we've just taken four to five years to get NHS ethics approval to work with NHS patients here in the U.K. for a randomized control trial. That's just the ethics approval. That's not even starting the first stage of the research and then you've got a feasibility study and then you scale up. It takes a long and expensive journey to do research.

Dr. Tom O'Bryan: Yes. And it's because, of course, you have to make sure it's safe, always. But then you have to shift the paradigm or have the reviewers be willing to expand their paradigm of how they think, the platform of how they think. I mean, this paper came from the research program in the Department of Health at the University of Cambridge. And they said, 23 papers, the average is 17 years before people can implement what is cutting edge information. So that's important to understand.

As in your case, for this approval that you've looked for it took four years from the Ethics Committee just to make sure it's safe. Well, they could have read the paper, the proposal and

seen it safe right away, but then they have to do their due diligence. But four years is a long time, and that's the way it is with most new concepts.

So your concept, your question of how our environment affects our brain. If we begin by understanding a little bit more about a similar structure that many of us have heard about before, and that is the leaky gut. If we understand about intestinal permeability and the leaky gut, these structures in the biology of the lining of the intestines where the leaky gut occurs.

That biology is very, very similar in the brain. The screening of the brain is called the blood brain barrier. And many of the markers of intestinal permeability are the same markers for a breach of the blood brain barrier. And we are much more familiar with research on the gut, most of us than on the research in the brain.

So if we look at the gut first and then I'll tie it together for you with the research on the brain. Professor Alessio Fasano, who is the chair of pediatric gastroenterology at Massachusetts General Hospital at Harvard and the director of the Mucosal Immunology Department at Harvard, just published a new paper a couple of weeks ago. And people at that level, experts at that level are very, very cautious about what they say and the language they use, so that they're not misquoted. They're always cautious and we can appreciate that because when they speak, the world listens, they're the leaders. His new paper that was just published is entitled *All Disease Begins in the (Leaky) Gut*.

Alex Howard: Wow.

Dr. Tom O'Bryan: Yeah, exactly.

Alex Howard: No ambiguity in that title is there.

Dr. Tom O'Bryan: None. And he's referring to chronic inflammatory diseases. All chronic inflammatory diseases begin in the gut. What is he saying? He's saying that when you get intestinal permeability, that's the gateway into the systemic inflammation that will manifest wherever the weak link is in your chain.

What do I mean by that? You pull at a chain it always breaks at the weakest link, it's at one end, the middle, the other end, it your heart, your brain, your liver, your kidneys, your immune system, wherever your weak link is that's where the change is going to break.

Alex Howard: Yes.

Dr. Tom O'Bryan: And the pull on the chain is inflammation, always inflammation, unless it's trauma, physical trauma. So where does the inflammation come from? It comes from your immune system trying to protect you from something. And that is what Professor Fasano is talking about, is what is your immune system trying to protect you from?

So if we understand that platform, all disease begins in the leaky gut. Now let's take it to the brain. What about depression? Depression is an inflammatory disease in the brain, so it begins in the leaky gut. What about anxiety? Anxiety is an inflammatory disease of the

brain, so it begins in the leaky gut. What about schizophrenia? Schizophrenia is an inflammatory disease of the brain, so it begins in the leaky gut. What about Alzheimer's? Alzheimer's is an inflammatory disease of the brain, so it begins in the leaky gut. Am I making my point?

Alex Howard: I think one of the things that is important here is that, I think partly because of the germ theory approach of traditional medicine. People tend to be very over simplistic and think if I've got, for example, a headache it must be something that's happening in a local area, in my head, for example. If I've got a rash on my skin, it must be something that's originating in my skin or something I've come in contact with in the external world. And people forget the systemic approach of how everything is interconnected. And actually something could be happening in the digestive system which is actually affecting someone's mood, whereas we always assume that mood is simply to do with mind and emotions.

Dr. Tom O'Bryan: Yes. Not at all. Here's an example, just go to Google, that great library in the sky and type in schizophrenia and gluten. And look at all the studies that come up that sometimes when you take gluten out of a schizophrenic's diet, the schizophrenia goes away. And these are in different journals of psychiatry, not every time, not every person but sometimes.

Or just go to Google and type in casein, which is a protein in dairy products and sudden infant death syndrome. Look at the studies that sometimes they think that's the trigger. So it's inflammation and where do we get the most inflammation? What's on the end of your fork? That is the most common trigger to inflammation in the body.

Of course, there are others, if you live in a moldy house and many people live in older homes, or homes that have had flooding in the past, or windows left open during a heavy rainstorm and the rain came down on the walls, soaked the walls, soaked the carpet, then it dries out. You think you're fine? No. Mold can be growing on the inside of the wall and you never know. But then six months or a year later, you're starting to have brain symptoms. Why? Because you're sleeping in a room that's got too many mold spores in it and there are so many different triggers. But the most common trigger is what's on the end of your fork.

Alex Howard: Yes.

Dr. Tom O'Bryan: And Professor Fasano, in this article that I'm referencing said, "the two most common triggers to intestinal permeability or the leaky gut and the leaky brain are lipopolysaccharides." Now, for those that don't know, that's the exhaust of gram-negative bacteria, bad bacteria has exhaust. And if it gets into your body, through your gut, into your body, that triggers a breach of the blood brain barrier, leaky brain and leaky gut first and then leaky brain, and the second one is gluten. Every person, every time they're exposed to wheat gets transient intestinal permeability.

I'd like to explain this because it relates directly to the brain. Maureen Leonard, a gastroenterologist at Harvard, did a literature review of many different studies on this topic. And her summary was the same as many earlier studies that all humans get transient intestinal permeability, tears in the cheesecloth, every time they're exposed to wheat, every time without exception. Now, Mrs Patient, the fastest growing cells in the body are the nasal

epithelium, but the second faster cells are the inside lining of the gut. You build a whole new lining to your gut every three days, four days. So if you eat toast for breakfast, you tear the lining of the gut, but it heals. You eat a sandwich for lunch, you tear the lining of the gut, but it heals. You have pasta for dinner, you tear the lining of the gut, but it heals. Croutons on your salad, you tear the lining of your gut, but it heals. A cookie, you tear the lining of the gut, but it heals. Until one day you don't heal anymore and that's called loss of oral tolerance, and that occurs for a number of reasons.

But the primary one is you've changed your microbiome way too much. It's an inflammatory microbiome that causes the leaky gut, the intestinal permeability all the time. Then you don't have transient intestinal permeability, you have leaky gut pathogenic intestinal permeability. And when those LPS molecules get through into the bloodstream or the gluten molecules get through into the bloodstream from the gut, they're in circulation, they go up to the brain, they cause leaky brain. As can many other chemicals.

When you fill your tank with petrol, with gasoline, can you smell the gasoline? Oh, yeah, I can smell the gas. You're smelling benzene, benzene goes right through your nose, up to your brain and causes inflammation in your brain every time you smell it. Well, I don't feel bad. Well, just wait, we'll put it on your tombstone. He didn't feel bad smelling benzene, right? It's the cumulative effect, as you said earlier, we think about one bug, one bacteria, one problem causing the disease and we don't think of the cumulative nature of all this.

It's the accumulative nature of what we're exposed to that takes us over the line of tolerance, and our transient intestinal permeability becomes pathogenic, and our transient breach of the blood brain barrier becomes pathogenic. And when you get a breach of the blood brain barrier, leaky brain, now molecules get into the brain that aren't supposed to get in there.

We have four different immune systems and the most, I like this analogy. The primary immune system in the gut called the innate immune system is automatic how it happens. That's like the marshal in town, he's got a little six shooter, if you think of the Wild West back in the eighteen hundreds in the US in the cowboy movies. He has a six shooter and he fires his bullet to protect the town, that's the immune system in the gut. The next immune system is in the liver. This is like the sheriff that's got a rifle and he's got a more powerful response to anything that gets out of the gut into the liver.

The next immune system is in the bloodstream. They're called antibodies and they're like special forces, they have high powered rifles. And the fourth immune system is in the brain it's called the glial cells. These guys have bazookas that nobody lives that gets through the blood brain barrier into the brain when the glial cells get activated. The glial cells are the most powerful immune system because your brain has no threshold for things that aren't supposed to be there, and that's a really good thing. The problem is you keep eating wheat every day. You keep getting a little more breach of the blood brain barrier. You keep having input of bad molecules getting into the brain. You keep activating the glial cells, firing bazookas, you keep getting a little collateral damage. And then the inflammation occurs in the brain that manifests wherever the weak link is in your brain. It could be depression, anxiety, schizophrenia, Parkinson's, Alzheimer's, bipolar disorder. But that is our brain fog,

just simple brain fog. That is kind of a big picture view of what happens when toxins get into the brain.

Alex Howard: And I think it's a really important point that you make that there are some other pieces that we'll come into in a minute. But one of the most simple and empowering things people can do and I know it's something that you played a really important role in putting in the public awareness is, stopping eating gluten, for example. And for many people, that simple change alone can have not just an impact on their physical health, but sometimes even more potently and impacts on their mental and emotional health.

Dr. Tom O'Bryan: Well, you're absolutely right. And I'm always cautious to say everyone needs to avoid gluten. I don't say that. I say if you have a health concern, everyone needs to be properly tested to see if your immune system is fighting gluten. Your immune system is the armed forces in your body, it's there to protect you.

There is an Army, a Navy, an Air Force and Marines, they're all there to protect you. So if your Army has been called out to protect you against wheat, stop eating wheat, it just makes sense. You know that you want your immune system stronger and allocate their resources to the things that we really need to be protected from.

Alex Howard: Yes.

Dr. Tom O'Bryan: As opposed to constantly eating this food every day. So you want to be properly tested to see if you have a problem with wheat. If you do, it's non-negotiable. You can't have a little once in a while. You can't be a little pregnant. You can't have a little wheat.

Alex Howard: And some people will say, "oh, I've had a celiac test. I don't have celiac disease therefore, I'm fine to eat gluten."

Maybe just say a little bit about testing and what you would consider a valid approach to clarify this?

Dr. Tom O'Bryan: You bet. That approach is right on the money, 20 years ago, that was the best knowledge we had. That if you don't have celiac disease, you don't have a problem with wheat. Now, we know that certainly is not true.

For every one person that has gut symptoms like celiac disease, with a problem with wheat, there are eight people that have brain symptoms, skin symptoms, joint symptoms, heart symptoms. Just go on Google and type in cardiomyopathy and gluten. And here comes the study from Mayo Clinic showing that when you take gluten out of the diet of patients suffering with cardiomyopathy, their ejection fraction gets better, their symptoms go away, irregular heartbeat goes away. And it's from wheat it's from a sensitivity to wheat.

So the ratio is eight to one for every one person with gut manifestations. There are eight people that don't have gut manifestations, but still have a problem with wheat. So you can't judge whether or not it's safe for you based on the tests that we're designed to look at your gut. Now, those tests, the names of these tests, I'm sorry, it's a little geeky, but some people have had the tests done so they need to know, are anti-gliadin antibodies, anti-

transglutaminase-2 antibodies and anti-endomysial antibodies. Those are tests that have been more associated with celiac disease, accurately so. But now we have tests available, there are 62 different components of wheat that we know your immune system can fight against, 62. Why are we only checking three? Right there's 62.

So there are more comprehensive tests now available in the U.K. which is where you are. The tests come from a lab called Cyrex Labs and they're represented in the U.K. By Regenerus, Regenerus Labs is the representative of Cyrex, they are much more comprehensive tests.

In the U.S. there's even more comprehensive tests called Vibrant wellness and their test is called the Wheat Zoomer. So that you can zoom in on the problem and their test is now available. They'll accept test kits from all over the world. But it's a little more of an effort on the general public's part to get the Wheat Zoomer tests, the Cyrex tests are outside of the U.S. easier to access than the Wheat Zoomer. But those are the only two tests in the world that are more comprehensive. Anything less than that is limited to just looking to see if you have any indicators of celiac disease.

Alex Howard: Yes. And I think that if people feel this sounds too overwhelming in terms of testing. Of course, one of the things people can also do is they can cut wheat out for a few months and see what happens. And sometimes that's its own diagnosis because someone goes, for some people of course, it can be within a few days, others it may take a little bit longer, but that can be its own potent source of information, I think.

Dr. Tom O'Bryan: Well, that's a very good point. The percentage of people that will respond from a squeaky clean wheat free diet is pretty good, but not 100 percent of those that are sensitive.

Somewhere between 50 percent, plus or minus will not have a great response by growing wheat free. Because they also have a sensitivity to other foods that, and the main one is dairy.

Alex Howard: Yes.

Dr. Tom O'Bryan: 50 percent of celiacs will still have antibodies to wheat if they're consuming dairy, it's called molecular mimicry or cross reactivity. So if someone does not want to do the blood tests or doesn't have access to the blood test, you really need to consider wheat free, dairy free, sugar free. And our message for people in that situation is, give me three weeks completely wheat free, dairy free, sugar free.

Just see how you feel or see how your symptoms are and usually we increase the percent likelihood of noticeable benefit from 50 percent, completely gluten free to somewhere around 80, 85 percent, completely gluten, dairy, sugar free.

Alex Howard: And I think that sometimes people can be, oh I couldn't possibly not have gluten, dairy and sugar. And I think it's one of those things that if someone has had significant symptoms for a long time and they feel a reduction in those symptoms, they'll be amazed how that motivation can start to change as a result of that.

Dr. Tom O'Bryan: That's exactly right. And we are in the era now, Alex, where there are many, many certified, well trained coaches, and registered dietitians, and nutritionists who have been trained in transitioning over to a gluten free, dairy free, sugar free diet.

So you don't have to reinvent the wheel. A couple of sessions with a health coach, a functional medicine coach, a registered dietitian who's been trained in this because their standard training doesn't do a very good job. It's postgraduate training they get or a nutritionist. A couple of sessions with them makes that transition so much easier and you're investing in your future.

You know, it's like when my wife wanted to learn skiing, she had never skied in her life. And so we went to go skiing, and we were with some other friends, and one of the other people had not gone skiing before. And the other person husband said, "well, we'll just take you out on the slopes and we'll teach you." And I said, "no, no, no, no, no. I'm not doing that with my wife."

Alex Howard: Funnily enough, that's how I learned to ski and it was a disaster. I nearly killed myself in the first half hour.

Dr. Tom O'Bryan: Exactly. We're going to get a lesson. We're going to get a couple of lessons for you with a coach who really knows how to do this, right. Because you're going to fall, everybody falls.

You'll make mistakes on that diet, everybody makes mistakes. But if you start with the basics correctly, like here are the options that your kids will love, gluten free, dairy free, sugar free. If you start with the basics and you get a good foundation. Then you grow with it and you learn and you have positive experiences as opposed to falling on your face in the snow. You make something, your kids don't like it, they're never gonna try it again. So it's best to have a coach or a couple of sessions to walk with you as you're transitioning into this new way of thinking about feeding your family and feeding your body.

Alex Howard: Yeah, it's funny. Just without getting off too much distraction, my skiing story was exactly that. I couldn't get any lessons. So a friend said, "oh it's fine, I'll take you up." And I ended up shooting down this run and my friend said afterwards, "you looked so confident." I was like, "I just couldn't stop." I was absolutely terrified and then this terrible wipe out with all these people shooting past. And at a trauma conference, it was quite traumatic.

When I did then have lessons there was undoing of the damage of doing it the wrong way.

Dr. Tom O'Bryan: That's a perfect example. That's my point is that please everyone find a functional medicine health coach, find a nutritionist, find a registered dietitian who is really trained and certified in this so that they make it so easy to do the right thing.

Alex Howard: Yes. You talked about molecular mimicry. It'd be good to touch a bit more on autoimmunity because that's also one of the pieces here that some people taking out food is part of it. But it's not the whole picture in terms of what's going on.

Dr. Tom O'Bryan: You bet. We did an entire docu series on this, it's called Betrayal, The Autoimmune Disease Solution they're not telling you. And we interviewed world leaders, as you are doing on autoimmunity and the topic of molecular mimicry.

There's no question now, every woman who has implants of silicone. There's no question, she develops antibodies to her own tissue, whether it's her joints or her tendons and ligaments. But the rheumatic autoimmune diseases are so very high in people that have silicone implants or Botox implants, that these foreign substances that our immune systems try to protect us from and fight. These substances accumulate on the surface of your joints as an example. Then the immune system firing its antibodies to kill this foreign substance causes some damage on the surface of your joints. And then you have to make antibodies to the surface of your joints to get rid of the damaged cells, to make room for new cells to develop. Not a problem, except every day there is a little more of this toxic material on the surface of your joints and you make antibodies to the surface of your joints. And this is an ongoing process. And the result is eventually you develop this self-perpetuating mechanism of antibodies to the surface of your joints. Here comes rheumatoid arthritis or if it's bisphenol A, BPA from plastic water bottles or from nail polish or soft contact lenses, they all have BPA.

If it's BPA that leaks into your system and it does, it has a tendency to bind to your thyroid. Then your body makes antibodies to your thyroid. And that's the autoimmune disease of your thyroid called Hashimoto's. Not every Hashimoto's patient developed Hashimoto's because of BPA, but a substantial number of them have.

Just go to Google and type in BPA and thyroid and look at the studies, it's not everyone but substantial numbers. So what does that mean? Get the BPA out of your diet if you have Hashimoto's. Learn where you're exposed to BPA, get it out of there and then go back and check in six months, are those BPA antibodies still elevated? Are the antibodies to my thyroid still elevated? You notice sometimes they're not, they've gone down to normal. Same with gluten. Gluten is a common trigger to antibodies to your thyroid because the antibodies fighting gluten, they're given this instruction, look for an orange vest called gluten and the antibodies are looking for gluten, this orange vest, it's a protein signature.

Well, the protein signature of your thyroid includes those amino acids, that's the orange vest in gluten. And so your antibodies can begin attacking your thyroid, if that's the weak link in your chain. That's molecular mimicry.

Alex Howard: Yes.

Dr. Tom O'Bryan: This whole mechanism of autoimmune diseases, it's the primary cohuna in terms of degenerative diseases. It's the mechanism causing cardiovascular disease, most cancers, and brain deterioration diseases. It's your immune system trying to protect you that's attacking your own tissue for one reason or another. And that's the book, *The AutoImmune Fix*.

Alex Howard: Yeah. And I think one of the things that I really like about your approach to this is rather than the more traditional medical approach, which is the immune system's overactive, how do we suppress it?

What you're doing is you're looking at, is why, what's the why of what's driving the immune system to be acting in the way that it is? And so you mentioned some examples of what might be causing that, it might be food, it might be implants.

What are some of the other things that might be triggering an activating response like that?

Dr. Tom O'Bryan: You bet. I'll be happy to answer that question. Let me just say what you just said, though, suppressing the immune system. Show me the research where you're arresting the development of those autoimmune diseases by suppressing the immune system. Show me the case studies of people who don't have the disease anymore.

Alex Howard: Right.

Dr. Tom O'Bryan: You can't. There aren't any. Show me the studies of people that change their diet, clean up the environment and their Hashimoto's thyroid disease goes into remission, there are many, hundreds published. Show me the studies on M.S. being arrested and put into remission by changing the diet, cleaning up your environment, there are many.

Just Google it and you'll find the studies this person did, this doctor reported this case, this doctor reported that case. There are no studies when you take the drugs, there's nothing wrong with taking the drugs if you need drugs to help function. No problem with that of course, you take them, of course, but they're not designed to address the condition and where it comes from. So your question about another example, a very common one for brain deterioration diseases very, very common is mold, and it's much more common now than ever before. And you're in Great Britain, a lot of the homes in Great Britain are older, well-maintained, but older, there's mold in the homes. Mrs Patient, if you go on vacation for a couple of weeks and you come back, you have to open the windows to air the house out. Well, yes. You got mold. Though you need to bring in a mold specialist to test the air because these spores, these tiny spores that are produced every day in a moldy house, you can't see those spores, but they're in the air. You breathe those spores in, they go right up to your brain, they trigger inflammation, a breach of the blood brain barrier, leaky brain. They get into the brain and you get antibodies to mold, you get mold metabolites in your urine.

I mean it's not hard to test for this stuff, but that's a very common trigger. There are many triggers and it's overwhelming to try to address every single trigger unless you're a trained functional medicine or holistic health care practitioner. So for the general public it's difficult to get your hands around all of this. But the big picture is, there are triggers causing the inflammation, giving me my brain symptoms.

Alex Howard: Yes.

Dr. Tom O'Bryan: That's what you need to know and my book, *You Can Fix Your Brain* gives you lots of those triggers. Now, could you read for me the subtitle on the cover of that book?

Alex Howard: Just one hour a week to the best memory, productivity and sleep you've ever had.

Dr. Tom O'Bryan: Thank you. That's not a cutesy subtitle. That is the only way to succeed in changing the direction of your health. Because we are all overwhelmed by so much to do for ourselves and our families.

We're overwhelmed, we don't have time for any of this. But you allocate Mrs. Patient every Tuesday night after dinner or every Sunday morning after services, whenever it is. But every week for one hour, you tell your family leave me alone.

You turn your phone off so nobody can call you.

You're doing your deep dive for one hour a week into research on how to change the environment that is creating the toxicity in your body and your family's bodies.

For example, when you read in the book that plastic storage containers for your food leach phthalates into the food overnight in the refrigerator and you eat the chicken the next day, it's got phthalates in it. Then you go back to the book and you look at the three URLs for glass storage containers and you go online, say, "oh, I really like those." And you order three round ones and two square ones and one for the pies and you pay through credit card, you hit send.

It took you an hour, you're done for the week. But never again will you poison your family with plastic storage containers because you didn't know.

Alex Howard: Yeah.

Dr. Tom O'Bryan: Right. And then next week you look at nail polish, and then next week you look at the air quality in your home, and then next week you look at the cleaning supplies that you're washing clothes with. And every week you do one more thing, one more thing, one more thing. And in six months, you got this.

That is the only way to be successful because it's completely overwhelming. You can't think any more out of the box, I have this symptom, I take this pill. Or if you're holistic, I take this vitamin. You can't think that way anymore. You have to have a defensive approach to protect you and your family because the environment is so toxic and it's not going to get better.

Alex Howard: One of the things that I really like about the way you approach it in the book is that you break it down into a series of simple steps that people can follow. And I think one of the mistakes I think people can make when it comes to addressing these kinds of things is they want to go for the most complex, nuanced scientific miracle piece.

And if I do that piece, because they think that they're getting something super clever. But often it's the much more practical, simple things which can have the biggest effects.

Dr. Tom O'Bryan: Miracle things don't happen anymore. They can deal with a symptom but your body is not just one system.

When you have a problem in this system, there are many symptoms, many systems that are also out of balance. And if you suppress this one with some miracle vitamins, some miracle drug, these are going to rear their heads up somewhere down the road.

Alex Howard: Yes.

Dr. Tom O'Bryan: So it's lifestyle, it's the environment. There is a paradigm shift that's happening now and it's going to take 17 years unfortunately.

Alex Howard: Funny we can predict that.

Dr. Tom O'Bryan: I'm trying my best to cut that time down. But the paradigm shift is, everyone needs to be thinking about their environment, their external environment and their internal environment. And how do I build a healthy internal environment and how do I protect myself and create a healthy external environment?

Alex Howard: Well, one of the things that I also really liked in your book was you have a chapter on the importance of mindsets.

And actually, just to pull a quote, you say that "while big pharma continues to look for a better life jacket. I believe that one of the critical ways for changing brain health is changing how we think about our brain health, including our mindsets, i.e. the way we think about the possibilities of transformation and the attitude and awareness we can carry as we take care of ourselves."

And I thought of it as a good way of bringing together what we've been saying to this point. That it's not just having the information, but it's the mindset of how one approaches things.

Dr. Tom O'Bryan: You know, you're absolutely right.

Alex Howard: Well, I'm quoting you.

Dr. Tom O'Bryan: I agree. When I started this habit, I noticed impactful changes in how I saw the world, and this was a few years ago. The habit is every morning when I wake up before I move out of bed, when my consciousness wakes up, if it's to the alarm, I turn the alarm off. But before I move, what three things are I grateful for today? What three things? And sometimes it was hard to come up with a second or third thing. If it was a rough day yesterday or something, my mind still caught on yesterday. But as I continue to do that, my outlook on life changes. And, I don't understand the airy fairy of this, but it's really true. And we've all heard of prayer groups that trigger healings to occur. How does that happen? There's no question it happens, there's published studies on this.

We don't know how it happens. But I know I feel better when I have a more balanced, grateful approach to life and live with gratitude for all the things that I have in my life and the people in my life. I'm grateful, and when I do these three, what three things? And some days it's hard and if I only come up with two I'll take a shower, but then I'm thinking in the shower, you know, oh, yeah, of course. Boom, there is a third.

So we control what kind of hormones are produced in our brain, they're called neurotransmitters. We control that by our thoughts. So what we think, it may take weeks or months before you notice a change. But every day just when you wake up, what three things

are you grateful for? Well, I'm really grateful that a couple of weeks ago I met that girl, she was very pretty and I really liked her.

Whatever it should be or I'm really grateful for that meal last night, that was a delicious, healthy meal. It doesn't matter what they are. Just to find those aspects of life, they give us gratitude because we have gratitude we are not producing stress hormones.

We are producing rejuvenation hormones. That's called your parasympathetic nervous system and we're coming with a, the term is anabolic, building healthier, younger, stronger cells versus catabolic, which is more stressed, weaker cells. And our attitude has a great deal of impact on how our nervous system runs anabolic or catabolic or both and the ratios of both.

Alex Howard: What I really like about what you're saying there, as well as you're talking about actively cultivating that attitude. It's not that you wake up and you feel grateful and isn't that lovely. But sometimes it's an effort to choose, to consciously choose to cultivate that mindset and yet.

Dr. Tom O'Bryan: I'm sorry. Yes. I wake up some mornings, I'm still distressed about something that happened yesterday. That's the first thought that pops in my head and it'd be really easy to go, Ar, ar, ar, ar, ar. It'd be really easy to do that in my mind. That's a fallback place. I think that my mind has gone too many times in years past and it takes a conscious effort, okay wait a minute, pause. Give me three, give me three and then go back to complaining if you want to. And when I do that, when I come up with three, the intensity of the complaining is diminished dramatically.

Alex Howard: Yeah. There's so much more we could explore here but I think that's a great place to end. **Dr. Tom O'Bryan:** thank you so much. For people that want to find out more we've mentioned your book so *The Autoimmune Fix and You Can Fix Your Brain*. People can also go to your website, TheDr.com is there anything else you want to mention.

Dr. Tom O'Bryan: Yeah, that's TheDr.com and there's lots of information there and things that you can download and to learn more.

Alex Howard: Fantastic. Thank you so much for your time. I really appreciate it.

Dr. Tom O'Bryan: Thank you, Alex.