The Altered Microbiome: Optimizing Your Gut Health And Your Ability To Fight Cancer Transcript

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Introduction and Guest Credentials

Hey, it's Nathan Crane, director of the Health and Healing Club and host of the Conquering Cancers Summit. And today, I am honored and excited to welcome you to a very special interview.

Doctor Tom O'Brien holds teaching faculty positions with the Institute for Functional Medicine and the National University of Health Sciences, and has trained and certified Tens of thousands of practitioners around the world and advanced understanding of the impact of wheat sensitivity and the development of individual autoimmune diseases.

Doctor O'Brien's bestselling books, The Autoimmune Fix and his most recent book, You Can Fix Your Brain, are available at most online retailers. I definitely suggest you pick up a copy of both of them today.

Doctor Tom's books, master classes, and clinical work offer a step by step approach to better health, better memory, disease prevention, weight loss, longevity, and a lot more.

Doctor Tom, thank you so much for joining us. Thank you Nathan, it's a pleasure. You know, it's events like this that allow people to learn more information, ask questions and then search for answers relevant.

Well, I never thought about that before. And so they start looking at different areas. So thanks for doing all the. I mean I know what back room work is for an event like this.

You know. And so I thank you for doing this. So the first question I'd love to just dive right into is for two types of people. What do people who have cancer, so they already have cancer or someone who's trying to prevent cancer because it's very similar, right.

What are some of the critical things they absolutely need to know and understand about gut health? Well, good question. Thank you. It's a big picture topic.

Gut Health and the Five Pillars of Chronic Disease

First thing, if you've been diagnosed in the past with the cancer or currently are dealing with one, your immune system has been unable to protect you adequately.

Right. Let's call, you know, let's call it straight that you're following the. The body is falling down on the job. So it means there's something that has to be addressed differently.

You know, the definition of crazy is doing the same thing and expecting a different result. So if we keep living the same lifestyle that we were living before we were diagnosed, and all right, I'm going to take some vitamins or something, but I'm still doing the same lifestyle.

Meaning you live in the same house that has mold in it, perhaps, or you're eating the same kind of foods or drinking the same amount of beverages that yeah, I know I really shouldn't drink those, but if we keep doing the same thing we've always done, we're going to get a very similar result right?

So I'm hoping that our discussion today and your event, I'm sure we'll do this overall is that people say, well, oh, I never thought about that before.

And that you explore a little. Don't believe anything that anybody tells you. It's always great to be skeptical.

Skepticism means I'm not sure I buy that.

I'm going to look into that a little bit more. Very healthy cynicism means I don't buy that. It's a load of garbage. I'm out of here, and you're not going to spend any more time with it.

So everyone should be skeptical, but never cynical. If you're if you're listening to an event like this because the moderator, Nathan, has chosen those people he knows, have some expertise and have a message of value that might relate to you and it might not.

Right? So just start with that. The the second thing I'd say is that one of my friends and mentors, Professor Alessio Fasano, at Harvard, this guy is the chair of pediatric gastroenterology at Harvard.

He's the chair of mucosal immunology, which means the lining of the gut and the lining of the lungs. He chairs that department. He's a professor of nutrition at Harvard School of Public Health, and he's the head of the department of celiac Research at Harvard.

Any one of these positions is, you know, something you would have a goal for a lifetime to achieve. Right. I mean, this guy is unbelievable. And what he does.

He is the man and his team that I identified in 1997. This thing that we now call leaky gut. He identified it and the mechanism by how it occurs. And in the last 20 plus years, they published literally hundreds of papers.

As they learn more and learn more and learn more. Now, this guy is always careful in what he says because he's such a world of authority. We think he'll get the Nobel Prize someday, for his work.

We really do, because it's it's helped millions of people. This thing about leaky gut. And he's always careful. But the title of a paper that he published this year says it all.

Now, remember this guy? Top of the field in a number of different specialties. Always careful of every word he says, because some representative from a pharmaceutical company may misquote him and try and sell their drugs to doctors and say, well, Fasano said this, and he might take it out of context or representative of a nutrition company may not quite understand what he was saying and misquote him.

So he's always careful of what he says. This was the title of a paper he published in January of this year. All disease begins in the leaky gut. All disease begins in the gut.

Now, what does that mean? What about diabetes? All disease begins in the leaky gut. What about cancer? All disease begins in the leaky gut. What about tumors?

All disease begins in the leaky gut. What about rheumatoid arthritis? All the disease. What about mis? All disease. You get the point. All disease begins in the gut.

And he's identified that there are five pillars in the development of chronic inflammatory diseases. All of them. And of course, cancer is a chronic inflammatory disease.

Your immune system is very, very active creating inflammation that eventually manifests from cellular damage as cancer. Right. And so the five pillars, the first one is genetics.

Yeah. Everyone in my family got colon cancer. You know, you may carry the gene. That's the first one. The second one is an environmental trigger that effects that gene.

What does that mean? Like, if you have a sensitivity to wheat and if you if your immune system's fighting wheat, you're at higher risk for a number of different kinds of cancers.

Just read the science. The third one is, altered microbiome. All of that good bacteria in our gut. And when you get

too much of the bad bacteria, it creates an environment called dysbiosis, dis dysbiosis.

The fourth one is intestinal permeability. The leaky gut. And the fifth one because with leaky gut you get these big molecules getting through the leaky gut into the bloodstream.

Microbiome, Leaky Gut, and the Gut-Brain Connection

The fifth one is a systemic immune response causing inflammation. So there's five factors. And what he talks about you can't do anything about the genetics.

You got the gene. You got the gene. But we now know 87% of the diseases we get are not because of the gene. It's not preordained that if you've got the Alzheimer's gene, you're getting Alzheimer's, or if you've got the Brca1 gene, you're getting breast cancer.

Not true. What is true is if you've got the Brca1 gene, you're more at risk of developing breast cancer. But it's not predetermined that you're getting breast cancer.

You know, you pull it a chain, it always breaks at the weakest link. It's at one end, the middle, the other end. Your heart, your brain, your liver, your kidneys, whatever your weak link is, that's determined by your genetics.

So don't pull on the chain so hard. Well, what does that mean? All right, so you got the gene. You can't do anything about that. But that's the weak link in your chain.

The three in the middle. The three pillars in the middle. We have complete control over environmental triggers. Means what you eat, what you drink, the air in your house.

Because indoor air pollution is worse in most areas of the country compared to outdoor air pollution. That's those are environmental triggers and then stress hormones that you produce because of too much stress in your life.

That's an environmental trigger. The stress hormones can cause cancer. There are a number of studies on that. Just stress of life can cause cancers. The next one is altered microbiome.

You've got complete control over that. It'll take you six months to a year to rebuild a healthy microbiome. But you can do it. And we'll talk today about how you can do it.

The fourth one is intestinal permeability. And when you fix the altered microbiome, you create an environment that's not so inflammatory. And sometimes there's a couple of nutrients to take up.

And you will calm down that leaky gut. And then the fifth one, the systemic immune response you really don't have any control over because your immune system.

And this is important to understand when you have cancer, your immune system is the armed forces in your body. It's there to protect you. There's an army and Navy and Air Force and Marines and Coast Guard.

We call them IGA, IGI, AGM. So a five pillars. The three in the middle. We've got complete control over. And what we will talk about today is the one right in the middle will be altered microbiome and how critically important that is.

So that's the big picture. Five pillars in the development of chronic inflammatory diseases. That's the big picture. And what do people need to know who have cancer.

Well if you've if you've got cancer now your microbiome is out of balance guaranteed. It's out of balance. Just run the test and you'll see. You got too many of the bad guys and not enough of the good guys.

You know, we've got thousands and thousands of different strains of bacteria in our gut. We have over 800 different strains of bacteria in our mouth that our microbiome goes from the mouth to the other end.

And there's thousands of families of bacteria. And what you want is more of the good guys than the bad guys. Now, here's a really important point that most people don't know.

36% of all of the small molecules in your bloodstream, 36% come from the exhaust of the bacteria in your gut, called the metabolites of the microbiome.

So what is all of this exhaust from the bacteria doing in the bloodstream? Well, we now know we didn't know this 15 years ago, but there have been hundreds of studies now that have come out on the influence of the microbiome in your gut and your brain.

For every one message from the brain going down, telling the gut what to do, there are nine messages from the gut going up, telling the brain what to do.

The ratio is 9 to 1. We know that the microbiome of the gut controls the function of your heart, of your lungs, of your liver, of your gallbladder is the geek term is modulating that.

The bacteria in your gut, it means has its hands on the steering wheel. The bacteria in your gut has its hands on the steering wheel of how your body functions.

And so if you're driving down the road and you turn your steering wheel just three degrees, 100 yards down the road, you're off the road. And that's what happens in our gut that creates so much inflammation throughout our body.

You know, it's a it's a fascinating point you just made and really important because I find today there's still so many people that don't realize this.

It was back in 2007, 2008 when I first learned about it.

Environmental Toxins and Detoxification

The intelligence of our gut and the neurons in our gut. I, I heard it back then being called the second brain. Right. And there's, as you said, there are so many functions happening out from our intestines, from our gut that's communicating and directing so many functions in the body, as you just mentioned.

I just want to take a moment and, and, you know, honor that you're sharing that so eloquently right now because it is really critical in our overall health. You're absolutely right.

You know, it was Professor Michael Gershon from Princeton who wrote the book The Second Brain in 1999. And then he came and spoke at the annual conference for the Institute of Functional Medicine that year and introduced all of us to this 9 to 1 ratio.

Now, this is not an exaggeration. Your gut controls how many hormones your brain makes, called neurotransmitters, and your neurotransmitter balance determines if you've got depression or anxiety or bipolar or schizophrenia that's controlled by the hormones in your brain called neurotransmitters.

And the neurotransmitters are controlled by the bacteria in your gut. Sending the directives up has its hands on the steering wheel. That is such a profound concept that people just don't know.

But if you really like, embrace that one. It becomes most important in life. You know, when people ask me, I'll do one thing. What's the one thing I should do more than anything else?

And the one thing you should do more than anything else is focus on building a healthy, diverse microbiome. Nothing has more power and more impact throughout your entire body than having a healthy, diverse microbiome.

Critically important. That's it's profound. And, yeah, thank you for, you know, covering these five, aspects of, you

know, what causes chronic disease, specifically cancer.

And, yeah, I'd love for you to to continue on. I know you said you, you know, you bet you wanted to talk. You wanted to talk about what can we actually do to take back control of our health to to help create, a healthy microbiome?

Because, as you mentioned, and as the research shows, that it requires a healthy microbiome for all of these functions. And the immune system, which we know helps to remove cancer cells from our body to function at an optimal level.

So, you know, what are the things we can do to heal and generate our microbiome? Well, the first thing is, is in understanding detoxification. People have heard the term detox.

There's lots of detox programs out there, lots of supplements for detoxing that we've heard about. Which one do I take, doc? You know which one's better.

What we have to understand is that humans today, that's all of us. Our immune systems are fighting a battle. There's no way that we can win. Never before in history have we been exposed to what we are being exposed to now.

Every single day. Never in history. And the journal Pediatrics is arguably the number one medical journal in the English language for children's health.

They published a paper and it was a policy statement, meaning it wasn't some doctor's opinion. This was the board of the American Academy of Pediatrics, and they said that the Toxic Substance Control Act, which is the regulating body of laws protecting all of us from chemical exposure.

This is the the the Bible of protection. It, Pediatrics said that it failed miserably to protect children and then in parentheses and adults, which meant all of us.

It failed miserably. It's been the governing legislation for over 35 years. And what happened was that the lobbyists were very successful in paying off the senators and the representatives.

Excuse me for being direct, but, you know, let's talk straight here that the laws are so cumbersome. In 35 years, that whole body of legislation has only regulated five chemicals or classes of chemicals out of tens of thousands.

Five. That's it. Manufacturers do not have to prove that the new chemicals they produce are safe. They don't have to prove it. The costs for proving safety are borne by the public and the EPA, for example.

They don't have any funding to have major research institutions checking up on these chemicals. They their their job is to police the environment, not to determine whether new chemicals can come into the environment to make a different kind of freon in your refrigerator, or a different kind of varnish on the headboard of your bed, you know, or a different kind of flame retardant chemical that's in all the sheets that you sleep under, and the blankets and the comforters and this stuff.

Oh, gases into the air. After 100 washings, it's still, oh, gases into the air. You can't smell it. You can't taste it, but you're breathing in tiny little amounts.

It's overwhelming when you learn all of this. And this toxic substance control act, they it is so bad that they identified in the journal Pediatrics. It's 247 pounds.

It's 27 trillion pounds a year. Manufactured or imported into the United States. That's 247 pounds per person per day, every single day, 550 pound bags of chemicals being introduced into our environment.

And what's the second of the five factors in the development of chronic inflammatory diseases? Environmental

triggers. Never before in history have humans had to deal with all of this.

We don't have an immune system that's designed to deal with all of this. Children born today, on average, have over 280 chemicals in the umbilical cord blood at birth that aren't supposed to be there 280.

And many of them are neural toxins. Our immune systems can't handle perchlorate lethally or toluene or benzene. You know, when you pump gas, Nathan, when you pump gas, do you sometimes smell the gas?

You're smelling benzene. You know, it goes straight up to your brain. It's a neurotoxin causing inflammation, killing all brain cells while you're smelling the benzene.

Yeah, and is bad. And then I. You know, it's funny, I just want to mention really quick because I was thinking about this a few months back when I was younger, and I was very unhealthy.

I had a lot of really bad food and took a lot of pharmaceuticals. And you name and I was very, very unhealthy as a teenager. I used to like to smell, I guess. Yeah.

You know, it was something I enjoyed and now and for actually quite a few years now, and I really believe it's just because of how clean I've gotten my body and how many cleanses I've done, and how much detoxing I've done, and how well I eat and exercise, etc., etc..

When I smell gas, it's it's it's a nasty smell. It's disgusting. My body doesn't like it. Right? It's a threat. Yeah. The reason that you craved it or you enjoyed the smell is it's stimulatory activates your immune system.

So it gives you a little buzz. Not a healthy buzz, but a little buzz to get your metabolism. Let's get the immune system working here. There's poison, there's poison, there's poison.

Leaky Gut Symptoms and Food Sensitivities

That's why people like foods that aren't good for them. Oh, I don't I don't have I don't have to eat wheat or I don't empty dairy. I just like it. I just like it.

Well, I understand why you like it. Because it stimulates your metabolism. Your pulse goes up when you eat it. So we interpret that as I just like it. So never before have we had to deal with all of these environmental toxins that we're exposed to constantly, every day.

You know, the studies are really clear. Indoor air pollution is much worse than outdoor air pollution, depending on where you live, but very common throughout the United States.

What does that mean? It means that you're breathing more toxic air in your house. Well, my air is okay. Really? You ever watch, you ever see the sunlight coming through the window at the right angle at time of day, and you can see dust in the air?

Well, yeah. Yeah, well, you're sucking in the dust, and that's the phthalates. The the plast the size. There's the chemicals used to mold plastic off the plastic blinds.

And that's the benzene off of the varnish, and the headboard of the bed because that goes out into the air. So all of the particulate matter that we're exposed to is assaulting our body with these minor amounts.

So I'll give you one example of this. And then and then we'll get to the microbiome. 346 pregnant women in Chicago. They measured their urine an eighth month of pregnancy.

And they measured them for five phthalates chemicals that mold plastic. Only five. There are hundreds, but they measured five, one of them most people have heard of BPA, bisphenol A, the one that's in water bottles and credit card receipts and all that.

So they measure it and they categorize them into fourths, the lowest birth. So all those women that were in the lowest fourth of phthalates, the next, the third and the highest, they then followed the children, the offspring of those pregnancies for seven years.

And when the kids turned seven years old, they did Wechsler IQ tests. The official IQ test. There's not much in medicine, that's all. Or every. But this was every every child whose mother was in the highest fourth of phthalates and urine.

And during pregnancy, compared to the children whose mothers were in the lowest fourth of phthalates in urine in pregnancy, every child in the highest fourth, their IQ was 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 in IQ is the difference between a child working really hard, getting straight A's, and a child working really hard, getting straight C's.

This child doesn't have a chance in hell of doing excuse me, but of doing good in school because mom was loaded with phthalates during pregnancy that now just go to Google and type in phthalates and neurogenesis brain growth.

Here come all the studies. How these plasters plasticizer chemicals inhibit brain development and nerve growth. And there's the outcome seven years later, because mom, you know, healthy mom lived her life pretty much, you know, like everybody else.

But she started putting nail polish on when she was five years old. And the phthalates and nail polish leach in your bloodstream in five minutes. Now, there's no evidence that the amount of family to leach into the bloodstream from nail polish within five minutes is toxic to humans.

That's how they get away with this, because there's no evidence that minor amount is going to harm you, but it accumulates in the body. So give me 25 years of mom putting nail polish on.

She's now 28, 30 years old. She started when she was five years old, right? These minor amounts that accumulate, plus all of the other chemicals that we're exposed to, that accumulate 280 chemicals in the umbilical cord blood of every child born.

Now, you know, give me all of those. Now you've got a mom that's got a real problem in developing a healthy baby in uterus, and nothing to do with her genetics or dad's genetics.

And this is an environmental triggers that have been accumulating in her body. You know, when I'm, researching, and reading lots of scientific articles and on this material, it always gets me when I read a phrase like that that says, well, there's no hard evidence that suggests x, y, z is a direct causation of cancer.

We need more studies. And that's because they've done, you know, very little specific, in-depth research for long periods of time where they can say that.

But then you find a second and a third and a fifth and a seventh and a 10th study that are all pointing to the exact same thing at the end of the day, at some point, I think we have to use our own common sense with this stuff, right?

We have to use our intuition and we have to use our own, you know, logic and reasoning, just so we don't we don't we believe what we hear on the television.

Yeah. So again, if you had gone back to the 1960s and 1970s, you would have heard the same thing. Well, there's no evidence that the amount of nicotine that you inhale from a cigaret is toxic to humans.

That's what you would have heard. And that's how they get away with this crap. Excuse me, but it's the same thing with 5G. Well, there's no evidence that the amount of radiation from 5G exposure is toxic to humans.

This is all accumulative in the body. And so the corporations are making billions and billions of dollars, and people are getting sicker and sicker and sicker.

So that's the background. Now, once again, let's go back to the five pillars. Genetics can't do anything about that. Don't worry about it. You got the gene.

You got the gene. Doesn't mean anything unless the gene gets turned up right. And that's what we want to avoid. Well, how does a gene get turned up or turned down by the three pillars in the middle, which is your environmental triggers?

So what does that mean? It means you read my book and you look at the URLs, organic nail polish that doesn't have phthalates, and you order some nail polish and you play around it until you find the one that you like.

Right? Or when you learn the plastic containers that you store your food, it leaches phthalates into the food overnight in the refrigerator. So you take out the chicken the next day and it's got phthalates in it.

And so what do you do? You go to my book and there's three URLs for to order glass storage containers. And then you start using glass storage containers because you'll never poison your family with minute amounts of phthalates.

Again, by storing your leftover food in plastic containers, give your husband the Tupperware to store nails out in the garage. They're okay for that, right?

And you just start learning all these little things to do for environmental triggers. The second of the three in the middle is the microbiome. And that's what we're going to talk about now.

And the last one in the middle is leaky gut, which tends to calm down quite a bit just by dealing with the microbiome. But sometimes you have to address the leaky gut directly.

And then the fifth one, the systemic immune response. That's the chronic inflammatory diseases. That's the inflammation. That's your body just trying to protect you from all this stuff.

Right. So this is where we focus our attention in the middle. Can you can you take just maybe a minute and share for for people who aren't aware if they have leaky gut or they have microbiome issues, I think, I might that's fine.

Can you share some of the. Well, you already did, obviously. You know that you had mentioned earlier that all disease stems from the leaky gut, which is a profound statement, but what are some other symptoms people might be experiencing for those who don't think they have leaky gut or microbiome issues, but most likely they actually do.

If you have chronic inflammatory disease, whether it's diabetes, high blood pressure, brain fog, depression, arthritis, M. S., you got a leaky gut. By definition, chronic inflammatory diseases occur by these five pillars.

So this is patient. Your intestines are a tube starts at the mouth goes to the other end about 2020 five feet long kind of winds around in the center.

There. The inside of the tube is lined with cheesecloth. So only really small molecules can get through the cheesecloth to get into the bloodstream. And that's one reason why you got 25ft of intestines, because digestion has to break down the food.

Like, if you think of proteins like a, pearl necklace, acid, hydrochloric acid in the stomach and does the class for the pearl necklace. Now you have a string of pearls, and your enzymes act as scissors to snips.

Snip snip snip snip. Break it down, break it down, break it down, break it down until you get down to each pearl of the pearl necklace called amino acid.

And they go right through the cheesecloth into the bloodstream. But bigger clumps of the pearl necklace. Because some proteins are hundreds of pearls long, they can't get through their cheesecloth.

They've got to go further down the digestive tract being snip, snip, snip before they're small enough. That's why your gut, 20ft long, is because it takes a whole lot longer to snip down prime rib than it does a banana, right?

So you've just got to have enough space in there. Moving along, moving along. Snip snip snip. When you get tears in the cheesecloth. Now larger parts of the, pearl necklace of whatever food you're eating, clumps of the pearl necklace can get through the tears in the cheesecloth before they're supposed to, that they're supposed to be snip smaller down into each pearl.

But because there's tears in the cheesecloth, that's leaky gut. Now, these big molecules called macromolecules get into the bloodstream and the macromolecules.

Your brain says, whoa, what's this in the bloodstream? This is not raw material that I can build new brain cells with or bone cells. I better fight this.

Now you make antibodies to tomatoes or to cucumbers or to chicken or to apples or to papaya.

Practical Steps for Healing and Long-Term Health

Good food. But your immune system's fighting it because clumps of the pearl necklace of that food got through before, or they should have. And that's a person that does a 25, I'm sorry, a 90 food panel blood test to see what your sense of do comes back, your sense of a 20 different foods and you say, oh my God, that's everything I eat.

Well, well, of course it is. Your immune system's trying to protect you. When you heal the gut. Wait six months, go back and test again. Now you're sensitive to two foods, maybe three.

And that's what you stay away from, right? But that's the leaky gut. Not in technical terms, but basically that's what it is, right? Terrorism. The cheesecloth and the tears in the cheesecloth occur for two main reasons.

One, the microbiome in the gut. It's got too much of the bad guys. And there's lots of inflammation. There's little bonfires along the beach. All in all through your gut, all you look down the beach and there's bonfires everywhere.

People are sitting around at night that's going on in your gut. When you've got dysbiosis, when you've got too much of the bad bacteria in different areas of your gut, there's too much inflammation in your gut.

And so that inflammation can cause terrorism. The cheesecloth, that's the first, trigger for tearing the cheesecloth. The second trigger is things that are on the end of your fork.

So the most common source of gasoline on the fire is what's on the end of your fork. And when you're eating foods that your body knows are not good for you, whether you feel sick when you eat them or not, you cause that inflammation that causes terrorism.

The cheesecloth, whatever one of those three or top five foods. Yeah, there are many studies now that many it's it's there. There's no argument. Anyone that tries to argue with this, they just kind of look a little silly.

Meaning they've just not read any of the science that every single person who eats wheat, every time they eat wheat, they get tears in the cheesecloth within five minutes of the food coming out of the stomach into the small intestine.

Every single person, every time. There's no argument on this, but it's called transient intestinal permeability. Miss patient, you have an entire new body.

Every seven years, every cell in your body regenerates except your teeth. But the fastest growing cells are the

lining of the gut. Every few days, you have a whole new lining to your gut.

So you eat toast for breakfast. You tear the lining, but it heals. You eat a sandwich for lunch. You tear the lining, but it heals pasta. For dinner, tear the lining, but it heals croutons on your salad.

Tear the lining, but it heals your medications. Have gluten in them. Tear the lining, but it heals your vitamins. Have gluten in them. Tear the lining, but it heals day after week after month after year until you don't heal anymore.

That's called loss of oral tolerance. That happens when you're two years old, 22 years old, 92 years old. It's different for everybody. But when that happens now, you get the leaky gut.

Number three in the five pillars of the development of chronic diseases. Now the macromolecules I'm sorry. Number four. Number four. Now the macromolecules get through the leaky gut into the bloodstream activating the immune response trying to protect you.

And here comes cancer five years, ten years, 15 years later here comes rheumatoid arthritis. And the studies show within 14 years, rheumatoid arthritis.

If that's the weak link in your chain within seven years, lupus if that's the weak link in your chain within seven years. Hashimoto's thyroid disease, if that's the weak link in your chain, within 25 years.

Primary biliary cirrhosis, meaning gallbladder, if that's the weak link in your chain. So we know the time frames now of some of these things. When you eventually get the leaky gut and your immune system response and that that whole world is called predictive autoimmunity.

That's what my book, The Autoimmune Fix is all about is the time frame for all of those. You read this, you go, wow, this just makes sense. This just makes sense.

How come my doctor didn't tell me this? And you know, there's like there's over 300 studies in both of my books. Each of each of my books has 300 and 350 studies in it.

So every point I make, there's the reference. You can go to the back of the book, look up the study, get the study, and yep, no that's true. Wow, I didn't know that.

And then the next one and then the next one. You know, I've spent a lifetime reading these studies and so I, I have a gift because my teachers taught me how to hold a big picture.

And, you know, I'm pretty good with analogies. I think it's because I grew up in Detroit. So I use a lot of car analogies. You know what I'm talking, right?

But when when you take the time to look at this stuff, this just makes sense that this is an important component in dealing with any chronic inflammatory disease.

Of course you do chemo. Of course you do radiation, if you need to, if that's what your doctor recommends and you want to follow your doctor's recommendations, you do what you have to do.

Of course, you take high blood pressure medication if you've got dangerous, high blood pressure, but you don't just take it the rest of your life, you start asking the question, why do I have high blood pressure?

Why is my immune system doing what it's doing here? What's it trying to protect me from? And you start that exploration. And, you know, I would ask you, Nathan, how many years did it take you before you felt you had a handle?

An a big picture view of what was going on in your body. Well, I'll tell you what. I had seven years of intense, deep research, experimentation, interviews, reading, lots of studies, my own personal, you know, laboratory of my body,

which I thought I knew a lot.

And when my grandpa got cancer and I watched him go through the conventional treatment, and I watched him wither away and die, it opened up my eyes to a whole new world.

Made me feel very disempowered, very disheartened, very hopeless and helpless. I realized I knew absolutely nothing, even though I thought I knew a lot.

And so I spent the next eight years learning everything I possibly could about cancer and now diabetes and autoimmunity and the gut, etc., etc. so even after 15 years, you know, my own research and experimentation and so forth, I feel like in the last few years I have a pretty good handle, but I'm still learning all the time.

And I think that's something that's really important for all of us to take away that, you know, we need, as you said, a healthy level of skepticism. Don't believe everything you hear, but also don't dismiss it immediately either.

That's why I always say experimental action, because when I research, I hear something, I learn about it that I tested on myself, or I interview and talk to people who have spent months and years testing those protocols on themselves as well.

And I think that's a key point in all of this, is that it's an ever growing and unfolding and developing level of self-awareness, self-understanding. And we need to just continue educating ourselves because that's exactly right.

Exactly right. And so it's years, and I bring that up here so that people understand, you know, every day you learn a little something and, you know, you get a little bit better and then you get a little bit better, and you create an environment for your kids to be a little safer, not exposed to the same poisons that you didn't know leech out of plastic food containers.

You didn't know that, or the lid on the coffee cup at the coffee shop was all full of phthalates that leach into the coffee. You you didn't know that you know, but then you just stop using those lids, you know, you go into the coffee shop with your stainless steel mug and say, fill it up, please.

And you just learn all these little things to do. You know, I've got so many tips in the books. How do you just begin this process? Well, here's one thing to do.

And you do that and then next, here's another thing to do, and here's another thing. And just check click them off one at a time. You know my book. If you can see the subtitle in the upper right corner, it's just one hour a week to the best memory, productivity, and sleep you've ever had.

And that's not a cutesy subtitle. That's the secret to success. You know, you just apply one little thing at a time. You take one hour and for example, when you realize, okay, I need to get some glass storage containers, you tell your family every Tuesday night after dinner, I'm going to spend one hour learning a little more.

Don't bother me. This is my hour for health, for our family, or every Sunday after services, whatever it is. So you go to the book. You looked at three URLs for glass storage containers Miles Kimball, dot com, Amazon, whatever.

The third one is, I don't remember. And you look at it also. Oh, I like those. And you order three round ones and two square ones and one for the pies.

Pay with your credit card, hit send. Took you an hour, but you're done for the week. Never again will you poison your family with minute amounts of phthalates from those plastic storage containers.

And then next week you do nail polish. The next week you do houseplants to clean the air of the toxins inside the room. And then next week, you do one more thing and one more thing.

And in six months you've done this. You've changed your environment inside your body and in your home over six

months. You don't. You won't get this in a day.

You won't get this in a week. And if you think, well, I want it now, then you know you'll get a little bit of improvement. You get frustrated and walk away and look for the next quick fix.

And the result is you keep spiraling downward with more inflammation. That's why it's so important to have patience and approach all of this at A levels.

You know, some people do one hour twice a week. You know it doesn't matter. But the point is you're understanding it's base hits. Base hits when the ball game.

That's the point. Don't go for home runs. Base hits. Well, I've been diagnosed with cancer. I fully understand. So maybe you got to do one hour a day right now, but you go for base hits, you don't look for, well, what's the end result?

We'll get rid of my cancer. You can't think that way. Because as far as I know, there's nothing that's been shown consistently to get rid of your cancer.

If you take. Just take this. It gets rid of cancer. It's not going to happen that everyone's unique, but it's the base hits that you create the and environment for less chronic inflammation in your body by learning all these little things.

And the result is in your next checkup, all of your inflammatory markers are down. You've been successful. Now let's just heal and rebuild, right? That's the goal.

I love that, you know, it's such an important piece of wisdom, especially, you know, Doctor Thomas Lodi, who's, I've worked with for, for many years. He's a medical doctor. He's in my film.

I interviewed him lots of times. He's spoken on my stages at my conferences. One of the statements he said, that always sticks with me. He says, you know, if you have a cancer diagnosis, let's say you have a tumor, but you're having very few symptoms from that tumor, and that tumor never grows another millimeter.

It never grows another millimeter. You'd have a normal life, you know. So it's not necessarily you have to get rid of the cancer completely to be successful.

It's just like what you're saying right now is that you optimize your gut, your microbiome, your health, all of these steps and keys that you'll learn through this symposium as well as through your books, which are critical.

I suggest people pick up a copy of both of your books. You can fix your brain, as well as the autoimmune fix, but those steps that you take, as you said, an hour a week and start making these changes.

If you get your body optimized to a point, you can live a normal life for another ten, 15, 20 years, you know? And that's that's a beautiful thing for a lot of people who are who are in their 50s or 60s or 70s with a cancer diagnosis.

So it's not all about and it's been taking years and oftentimes decades for that cancer to even be recognized by our modern technologies. So we've been developing cancer for many, many years.

You can take some time and learn, research and experiment and see if you can slow that progression over time. Stop it. And in some cases, the people I've interviewed, 10 or 15 years after their prognosis date, they were told, you have six months left to live.

I'm talking to them ten years later, their life is totally transformed and changed because they took this exact approach. Yeah, that's that's so, so accurate and empowering to summarize like that.

You know, there's it's called the 8080 by the age of 80, 80% of men will have prostate cancer. That's a given because there's just so many toxins were exposed to.

But there's different types of prostate cancers. There's the ones that will kill you and the ones, after you pass of something else in your 90s or whenever your time is up and they do not say, oh, look, this guy had prostate cancer.

Did did your father have any symptoms? And. No, no, not that I know of. So there's two types of prostate cancer, right. So if you carry the genetic vulnerability to prostate cancers, you want to find out, the metabolism of testosterone, because it's not the total testosterone that makes the difference or the amount of free testosterone.

That information came out 15 years ago, almost 20 years ago. It's helpful. But the metabolites of what your body does with this testosterone is what's so critically important.

And if you're breaking down testosterone down this one pathway, you're at high risk of having a nasty type of prostate cancer. But if you're breaking down metabolites down the majority down this other pathway, big long geek words down this other pathway, you know, it'll be an incidental finding.

When you die at 100, they'll say, oh, look, this guy had prostate cancer, but he never had any symptoms of it, right? So you you just want to have a bigger picture.

And as you say, you know, you can live with a tumor that's not causing any problems and it's not growing and you don't have any symptoms from it. Okay.

Maybe you can get rid of it. Maybe not. Well, doctor Tom, I just want to thank you so much for your time, your vast experience, for your wisdom, your inspiration, your stories and all of it.

I really appreciate and honor the great work you do. I think, you know, your work is instrumental in helping to bring this empowering information to a lot more people.

Thank you for the great work you do. I just I really appreciate it. Oh, thank you, Nathan. Real pleasure to be with you once again. Thanks for the event and Godspeed to everyone out there.

Yeah, absolutely. And I want to thank everyone for tuning in to the Conquering Cancer Summit. Please share this with friends and family. Together, we truly can make a difference for the future of humanity in ending the cancer pandemic.

Thank you and I wish you ultimate health and happiness. Be well.