

A sunburst graphic with numerous thin, light gray lines radiating from a central point behind the text.

Healthy Moms Podcast

BY **Wellness Mama**[®]
simple answers for healthier families

Episode 115: Decoding Autoimmune Disease With
Tom O'Bryan

Child: Welcome to my Mommy's podcast.

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Katie: Hello, and welcome to "The Healthy Moms Podcast." I'm Katie from wellnessmama.com, and I'm super excited about today's guest, because not only is he a personal friend, and one of the smartest people I know, but I think his work is gonna help a ton of people listening. Dr. Tom O'Bryan is an internationally recognized speaker, author, and health professional. He's helped thousands of people, especially in the area of autoimmune disease, which we all know is on the rise.

So in 2016, he released a movie called "Betrayal: The Autoimmune Disease Solution They're Not Telling You" which was a really fascinating investigation into why our immune system is out of control in today's world, and what are the factors that are causing that. He's also the author of "The Autoimmune Fix" which is an internationally recognized, award-winning book, and super helpful for anyone with autoimmune disease. He also created the Gluten Summit which has been recognized for years. It brings together 29 experts in the field of diseases and gluten sensitivity and is super fascinating. Links to all of those will be in the show notes.

But I'm super excited to have Tom here today to talk about autoimmune disease in all of its forms, and the things that most doctors don't even know to tell you. So, Dr. Tom, thank you for being here.

Tom: Oh, thank you, Katie. It's sincerely a pleasure to be here with you. You are the voice of the millennials, and I'm an old fart. So, for me to be able to speak to you guys is really an honor, and I have so much respect for your work. And I'm just gonna start off by saying if there's any one group that I need to reach to carry this message to, it's young moms, because you've got our treasure in your hands. You know, the Japanese culture has always looked on the teachers as one of the highest professions, because they have the treasure of the country, the treasure of the nation, and that is the children.

And we have such problems today... I mean Einstein said this. He said that the problems we've created today cannot be solved with the same level of thinking that created the problem, so we have to up our game. And the only way that we can up our game is by thinking differently, and it's the next generation that's really going to hopefully be able to correct the problems that we've created so far on this planet. So, it is a pleasure to be speaking to you and your group today. Thank you for this opportunity.

Katie: Oh, you're so welcome. I have so much respect for your work as well, and I know a lot of the moms listening are incredible researchers and have really fought that battle for their family. And so I think your information is really gonna help them. And I wanna start off, most people seem to be pretty familiar with autoimmune disease these days, because unfortunately we're seeing a lot more of it. But for anyone who's not, let's start at the beginning. Explain what autoimmune disease is and maybe why we're seeing it on the rise so much.

Tom: Sure, you bet. You bet. And I'll use the language that I use with my patients, if I may. Mrs. Patient, your immune system is the armed forces in your body. It's there to protect you. There's an army, an air force, a marine, a coastguard, a navy. We call them IgA, IgG, IgE, IgM, leukocytes, white blood cells. There are many different branches of the immune system that's there, but it's all there to protect you. That's its job. So, autoimmune mechanisms are their normal. You know, Katie, it's normal to have an autoimmune mechanism. Why? Because we have an entire new body every seven years. Every cell in your body regenerates. It used to be we thought that the heart and the brain did not. Now we know that they do. Every cell in the body regenerates.

So, how does that happen? The way it happens is that the immune system gets rid of the old and damaged cells. As cells wear out, or they get damaged by radiation from Fukushima, or by too much sugar causing blood sugar variations that damage cells. Whatever the mechanism is that's damaging your cells, it's the immune system that makes antibodies to get rid of those old and damaged cells. So it's normal to have antibodies to your thyroid. It's normal to have antibodies to your brain, to the myelin which is the Saran Wrap around your nerves, to the different brain tissues like the cerebellum, or the pituitary, or the hypothalamus, all those parts of the brain. It's normal that your immune system makes antibodies to all of your tissue. That's why if you get a blood test looking at antibodies, there's always a normal reference range. It's the range where you're killing off as many cells as you're making. That's called the reference range. That's normal. But when you have elevated antibodies, you're killing off more cells than you're making.

So if we can think of it that way that autoimmunity is not bad but autoimmune mechanisms that have gone haywire, if you will...when you have elevated antibodies, now you're killing off more cells than you're making, and you can't feel that. You don't feel when you have elevated antibodies to your thyroid. You don't feel when you have elevated antibodies to myelin basic protein. You don't feel it until you've killed off enough cells, and you're not making as many because it's elevated so you're killing off more than you're making, until you've killed off enough cells, now that tissue can't quite work right anymore. And when it can't quite work right anymore, it becomes dysfunctional, it's not functioning properly, now you start getting some symptoms.

And the symptoms, if it's your thyroid, it might be cold hands and feet. You wear socks to bed or your spouse says you've got cold feet at night when you're in bed. You wake up in the morning, you hit the snooze two or three times. You always wish you had 10 more minutes in bed. You can't lose that last 5 pounds even if you only eat for a couple of days because your metabolism's so slow. Those are all suggestive signs of a thyroid dysfunction.

Then eventually you go to a doctor, and they look for thyroid hormone, and it's fine. You don't have a problem with the hormone levels. But if they're thorough enough, and they look, and they see you've got elevated antibodies to your thyroid, now you've got an autoimmune disease mechanism that's been identified.

So the autoimmune disease is when you're making more antibodies to the tissue than new cells for the tissue. So, once we understand that, that autoimmunity is normal but excessive autoimmunity is not normal, and that's what causes the disease, then the next question is why do we have excessive antibodies to our own tissue? That's the million-dollar question is why do I have elevated antibodies? And when you ask that question, the bottom line answer... We can go into detail for four hours or more on this, but the bottom line detail is that when you're exposed to environmental toxins...now remember the environment is anything that's outside or inside your body, and we'll talk about that, but let's just say outside for now. Anything in the environment includes and it's the primary trigger for most people is what's on the end of your fork. That's from the outside environment coming inside.

And environmental toxins coming in trigger the dysfunction and the loss of vitality of your cells. And the most common food...talking about foods, what's on the end of your fork, the most common food that people have a sensitivity to is wheat. But if you don't get stomach pains when you eat wheat...you eat a sandwich, you eat pasta and you don't really feel anything. You might get a little bloated which is a sign in itself but it's not a big deal. You don't think much about it. But most people only one out of eight will have GI or stomach problems when they eat wheat. Seven out of eight do not have any stomach problems that they can identify. What they get is elevated antibodies to their thyroid, or elevated antibodies to their brain, or elevated antibodies to their heart, or to their muscles, or to their bones, and so they then develop osteoporosis, or Hashimoto's thyroid disease, or MS, or ataxia. So many different diseases come from an environmental trigger that's setting it off.

So that's the big picture overview of what is autoimmunity. You ask me, where does it come from? And where it comes from is the incredible volume of environmental triggers that we're being exposed to today, more than ever before in the history of humans.

Katie: That makes perfect sense. And I'd love to delve a little bit into your story, because I know at one point, I asked you, like, "Are you celiac?" because that's typically what's considered the, you know, worst-case scenario with gluten sensitivity. And you explained this really fascinating research about it's much more than that, and so you're not celiac but you have just a series of problems with gluten, correct? So can you explain that? And is it possible to overcome gluten sensitivity? I know that's a question many people have.

Tom: Yeah. So the first answer...can I explain it? Yes. And is it possible? Absolutely yes. Absolutely without a doubt, and we've seen reversal. If your Hashimoto's thyroid disease is from a gluten sensitivity, you reverse Hashimoto's. If your MS is from a gluten sensitivity, you reverse MS. These are published studies in the medical literature. Rheumatoid arthritis, psoriasis, tumors in the eye, I mean, it doesn't matter what the condition is. If it's caused by an environmental trigger to wheat, when you successfully get wheat out of there, and you have to learn how to do that, then that condition will start to calm down and often will reverse.

So, what happened for me, I think, was your question. We have to go back 37 years when my ex and I were trying to get pregnant, and we couldn't. I was an intern at the time, and I called the seven most famous holistic doctors I'd ever heard of. And this was 1979. And I reached them and asked them what they all do for infertility. They all told me what they do. I put a program together, and we were pregnant in six weeks. My neighbors in married housing heard about this, and she had been through artificial insemination, and nothing had worked. So they asked if I'd work with them, and I said, "Well, yeah, sure. I don't know it's gonna harm you in any way. Sure, of course." They were pregnant in three months.

So before I even got into the clinic, I was already working with people, because we were so excited. We were

telling our friends, and our friends would tell their sister in Wisconsin who had infertility issues, "Hey, my friends just got pregnant. He's got this whole thing that he's discovered, and about the science, and what happens." So people were coming from other states to see me. I was treating them out of my dorm room, because we lived on campus. You're not supposed to do that, but people wanted help and so I was trying to help any way I could. And we came out into practice, and we've helped hundreds and hundreds of families with fertility issues, infertility, recurrent miscarriages. We've been very successful with that.

And what I found out in our own personal journey and in all of these people that I began treating was that every... There's not much in medicine that's an "all" or "every," but in my clinical practice, this was an "every." Every person that had hormone-related dysfunction...whether it was infertility or unexplained miscarriages, ovarian cysts, uterine fibroids, low testosterone, every single person always had a sensitivity to a food that they were eating that they didn't know they were sensitive to, because they didn't get sick when they ate the food, but it was triggering a reaction in some other part of their body. And when we'd find out what that food was, it was an integral component to being successful in dealing with whatever the patient was presenting with was identifying the foods that they were eating that they may think are healthy foods but, for them, they weren't. And the most common food is wheat; most common above all others that we have found in clinical practice.

When you do the right testing...and that's really important to understand the right testing. When you do the right testing, you identify it. And probably, in my practice, it's as many as 6 out of 10 people that come into our practice, whatever they're complaining of, 6 out of 10, when we do the right test for them, it demonstrates that your immune system is fighting wheat. And so we recommend get wheat out of your diet completely. And the results are people start getting better very quickly.

Katie: Yeah, and I know we talked about this but I'd love for you to delve into your, like, autoimmune dashboard that you call it, and explaining how you're able to take these tests, and to kind of get this insight into the body, and to figure out for a specific person, what are their triggers.

Tom: Oh, you bet. You bet. So, in order to do that, a little bit of the background. When you eat... I'll use wheat as the example, because there are so many hundreds and hundreds of studies on this one. When you eat wheat, if you have a sensitivity to it, your immune system says, "This is not good for me." Now, for whatever reason that happens, and there are many reasons, but when your immune system says that, you start producing antibodies. Your immune system says, "Whoa, this is not good for me. You, General..." And in your immune system, you've got army, air force, marine corps generals sitting around with nothing to do. "General, you now are General Wheat. Take care of this."

This is how vaccinations and immunizations work. If you get a shot of measles, they actually give you the bug measles, and your immune system says, "Whoa, General, you now are General Measles. Take care of this." General Measles builds an assembly line. The assembly line starts producing soldiers that are trained as assassins to go after measles. Those soldiers are called antibodies. They're antibodies specifically going through the bloodstream looking for measles. Remember your bloodstream is just a highway. There's all kinds of traffic on the highway. It's just a highway. There's no lanes of traffic, so everything's bouncing around in there going in the same direction.

So now General Measles builds his assembly line, starting to producing these soldiers called antibodies. Think of these soldiers as Arnold. Arnold's got his head out of a big Humvee. He's got those dark glasses on. Here in

California we call him the Governor. So you've got the Governor with the big submachine gun, head out of a Humvee going, "Over there, over there," firing these chemical bullets wherever he sees measles. Now the way Arnold recognizes measles, he's been trained to look for the signature of the measles protein. Now that signature, let's say it's a black vest. So Arnold is trained to look for anyone in the bloodstream with a black vest. And what the black vest is is amino acid sequences. So Arnold's looking for black vests in the bloodstream that are unique to measles. And I'm gonna call that AABCD. So Arnold's looking for the measles antibodies.

When all of the measles bug from the immunization have been killed off, when Arnold's killed them all off, General Measles who's watching this says, "Okay, turn off the assembly line. We don't need any more measles antibodies right now." If you were to do a test right now, Katie, a blood test, you should not have measles antibodies unless you've been exposed recently. But General Measles, his job now for the rest of his life, the rest of his life is to keep an eye out for measles. If measles ever comes back into the bloodstream, General Measles just has to flip the switch. He doesn't have to build the assembly line. It's already built, so that in a day or two days, the measles antibodies are in the bloodstream as opposed to taking a couple of months to build the assembly line.

That's why if you go to Africa, you need vaccinations months and months ahead of time for yellow fever, and dengue fever, all these weird diseases. But if you go back to Africa 15 years later to visit again, you just need a booster shot 2 weeks before you go. You just have to wake up General Yellow Fever or General Dengue Fever. That's why we have booster shots.

Now let's take that concept of measles antibodies and how the immune system works, let's take that concept now to a food. Let's take wheat as the example. So your immune system says, "Whoa, wheat's not good for me." For whatever reason it says that, and there are many reasons that we can talk about, but the immune system says, "Wheat's not good for me. You, General, you now are General Wheat. Take care of this." General Wheat builds an assembly line that produces soldiers, and Arnold comes out. The antibodies come out looking for the black vest of wheat. And that signature is an amino acid signature. So Arnold's looking everywhere for that amino acid signature, and I'm gonna say it's AABCD. The most common signature is 33 amino acids long that Arnold looks for with wheat. That's the most common, but there are many.

So now he's going through the bloodstream looking for AABCD, and he's firing his chemical bullets wherever he sees it. Now he goes past the thyroid. You know, blood goes past every tissue in your body, so the surface of the thyroid facing the bloodstream is made up of proteins and fats, the surface of it. So that surface facing the bloodstream is made up of proteins and fats. Proteins are made up of amino acids that are hundreds of amino acids long. The surface of the thyroid facing the bloodstream made up of hundreds of amino acids long proteins includes AABCD as part of the signature in building the surface of the thyroid facing the bloodstream. It includes that piece AABCD.

Arnold, he's got these dark glasses on. He can't tell. He's firing his bullets, "Over there, over there." And he looks at the thyroid, and he sees AABCD. If that's your genetic weak link in the thyroid, if he sees that, he fires a chemical bullet at the surface of your thyroid, thinking he's going after wheat. This is called molecular mimicry that the surface of the thyroid, in this example, or myelin basic protein, or cerebellum, or your heart tissue, or your bone, whatever your genetic vulnerability is, the surface of the thyroid, in this example, looks like AABCD. Arnold fires his chemical bullet at AABCD. Now you've got a damaged thyroid cell.

Now your immune system is already making thyroid antibodies to get rid of old and damaged cells. Remember

we started off, what's autoimmunity. But now it has to make more antibodies to get rid of these extra cells that have been damaged. Not a problem except you have toast for breakfast. You produce more Arnolds. You have sandwiches for lunch. You produce more Arnolds. These are antibodies. You have pasta for dinner, croutons on your salad, a cookie, a bagel the next morning, a blueberry muffin day in and day out. We average 132.5 pounds of wheat per person per year in this country. We eat this food all the time.

And if you're sensitive to this food...or it could be dairy, it could be any other food, the same concept of molecular mimicry occurs in many different foods. I'm using wheat because it's the most common. So now with eating wheat regularly, being exposed to it, Arnold who's going after wheat gets confused and attacks your thyroid and attacks your thyroid. And you make more thyroid antibodies, so you make more thyroid antibodies. The next day, more Arnolds attacking your thyroid, attacking your thyroid, more thyroid antibodies, until the thyroid antibody production system becomes self-perpetuating. Now you're killing off more thyroid cells than you're making all the time. Now you develop the autoimmune disease, Hashimoto's thyroid disease.

For that person, if they have a sensitivity to wheat that triggered this, or contributed to this, when they go off of wheat completely, and Arnold calms down, many times, you see a reversal in the elevated antibodies to thyroid, many times. And people always feel better when they start this kind of protocol.

So that mechanism of molecular mimicry, it's outlined in my book "The Autoimmune Fix" in great detail, because this is a primary mechanism in why we get diseases today. And it doesn't matter if it's attention deficit, or Alzheimer's, or autism, or asthma, or muscle pains, or arthritis, or skin disorders like psoriasis or eczema. It doesn't matter. If the mechanism is because of molecular mimicry, you have to get rid of that environmental trigger, whether it is coming from a food, or mercury toxicity, or the air you're breathing. I'm using wheat as the example, but it's the environment and all the environmental toxins that we're exposed to that are triggering this dramatically increased incidence of autoimmune diseases that we're seeing today.

Katie: Got it. And another thing you talk about in your book is the genetic component which I feel like, in the last 10 years, we're really starting to understand more. But can you explain how this is kind of the key of why this autoimmune disease strikes people differently and affects different parts of the body? Because, for me, it's my thyroid, and I talked about that, having Hashimoto's. For you, I believe you talked about it was affecting your brain. Is that right?

Tom: That's correct, yes. Oh, my gosh, yes. Mrs. Patient, if you pull at a chain, it breaks at the weakest link, always at the weakest link. It could be one end, the middle, the other end. It can be your heart, your brain, your liver, your thyroid, your kidneys. Wherever your genetic weak link is, when you pull at the chain, that's where the chain is gonna break. So the goal here is to identify what's pulling on my chain, what is it that's causing my thyroid to be dysfunctional, or my brain to be dysfunctional? What's the trigger pulling on it? And then the goal is stop pulling on the chain so hard. That's what all of this is about is understanding these mechanisms not from a doctor's point of view, but from a basic consumer understanding point of view so that you then ask the right questions.

The right question is not, "How do I feel better with Hashimoto's thyroid disease?" That's of course important, but the right question is, "Why do I have Hashimoto's thyroid disease? And how do I reduce that why? How do I reduce the pull on the chain?" or rheumatoid arthritis, or psoriasis, or vitiligo.

My daughter would get vitiligo as a teenager, and that's when you lose the pigment in your skin, little patches of skin that go really bleached white compared to the tan that you might have in other parts of that arm, or that leg, or the chest, or your face. And when my daughter would get vitiligo, that's when it would scare her, and then she'd clean up her act. You know, being my kids, they always... You know, children have to express themselves in their own way, and so Dad was a little fanatical in those years. So my kids would express themselves in the ways they wanted to, and they'd go to McDonald's or whatever they did when they were at school until she crossed the line. And when she crossed the line and it got important to her, because her skin was now showing vitiligo, "Dad, Dad, what do I do?" I say, "Honey, you know what to do. Let's just summarize it once again. Drink more water. Take these vitamins. Stop throwing gasoline in the fire. Stop pulling on the chain. Stop eating those foods that are triggering this." And in two months, her vitiligo would be gone, and this happened to her a few times.

So, in my case, what we found out was that the weak link in my chain was my brain. And there is a test that we'll talk about in a couple of minutes, a screening test that you can do to see where's the weak link in your chain. This test looks at 24 different tissues in your body - your brain, your heart, your lungs, your liver, your muscles, your bones, your reproductive system, your thyroid, your adrenals - to see where do you have elevated antibodies.

So, we all have reference range antibodies, but where do you have elevated antibodies? I had three different elevated antibodies to my brain. I had myelin basic protein. That's the mechanism that causes MS, multiple sclerosis. I had ganglioside antibodies. That causes shrinkage of the entire brain and you get non-Alzheimer's dementia when you're older. And I had cerebellar antibodies, and that's the area of the brain that controls balance and muscle movement. And that's why so many old people can't dance up and down the stairs, and they're not gonna be able to shake it up at their granddaughter's wedding. You know, all they can do is the old folk two step - right, left, right, left, right, left. It's because their brains can't move very well anymore. Their brains can't control muscle movement because the cerebellum has been being attacked for the last 20, or 30, or 40 years. And the problem is you don't feel when any of that's happening.

And I had this test done in 1997. It was research-only at that time, and I was 44, and I was doing triathlons, and I was scoring in the top 10% of the 30 to 35-year-old guys. So I was walking strong with my chest up, thinking, you know, "I'm still a stud. You know, I'm still good to go here," right? So I thought I was as healthy as could be, and I did this blood test, and it came back. I had three antibodies elevated in my brain. And I called the laboratory and I said, "What's this? This is a mistake." And they said, "No, it's not." I said, "Do it again." They said, "We did. We know it's you. We did it again. It's accurate. Sorry." And that's when I woke up to this whole world that tissue destruction, the weak link in your chain goes on for many, many years before you ever have a symptom, before.

And so I started studying this in great detail. Two years later, I did the test again. It was normal. And I did the test again about two years ago, and they're normal. So, I was successful at arresting this, and I'd spent the last 15 years or so really talking about this a lot, but that's what the book "The Autoimmune Fix" is about is to understand this mechanism which is the primary mechanism in getting sick and dying in the world today. Alzheimer's is autoimmune. Parkinson's is autoimmune. Cardiovascular disease begins as an autoimmune disease. Cancers, diabetes, rheumatoid, multiple sclerosis, psoriasis, Sjogren's, scleroderma, lupus, you know, there's over a hundred of them now, and they are the common mechanisms by which we get sick and eventually die is autoimmune mechanisms.

So, our goal is to help people understand this mechanism, what it is, and then do the right testing so that you can find out, "Do I have any of these weak links in my chain they're showing right now?" And if you do, it's a wakeup call. It doesn't matter how you feel right now. If you've got elevated antibodies to your thyroid, we now know...by the way, it's called predictive autoimmunity. There's an entire discipline on this.

We now know that if you have elevated antibodies to your thyroid, especially postpartum, it's a 92% positive predictive value, you're getting Hashimoto's within seven years. If you have elevated antibodies to a common yeast in your gut called *Saccharomyces cerevisiae*, and the antibody test is called ASCA, if you have elevated ASCA antibodies, it's almost 100% you're getting Crohn's within 3 years. With the lupus antibodies, there's 7 antibodies, and it's within 11 years, 92% you're getting lupus. With celiac, it's 50% within 7 years. Unless you also have the gene, then it's almost 100% you're getting celiac within 7 years.

So this whole mechanism now, so many researchers have worked on this, and they've published the research that shows with different diseases, if you have the elevated antibodies, you're in trouble. You're killing off more tissue than you're making, and this is gonna catch up with you. This is likely to catch up with you down the road, and they now know how long down the road before it's gonna catch up with you.

Katie: Yeah, that's so fascinating, and I would definitely say everyone should read your book, because you outlined it so well. But also you say, like, as people age, they have trouble running upstairs. I have no doubt that when you are in your 90s, you'll be running upstairs, because I have seen you scurry up a mountain, no problem. So, I have no doubt. But I think also it's important to understand that, like you said, you may feel just fine. I think that's the key, because I had symptoms, and that's what led to me figuring out what was wrong, but you were perfectly healthy. You felt great. You thought you were in perfect shape, and I think that happens to a lot of people. I think we even talked about you had one case of a man who was an athlete, he was in great shape, but his father maybe and his brothers had died of heart disease. And there was a genetic factor there. So can you talk about those cases? And also memory B cells, can you explain memory B cells?

Tom: You bet. You bet. Will do. And I would just say, in your case, you likely had elevated antibodies for years, and you felt fine. You didn't know. Why would you check? You feel fine. And then eventually it attacked your thyroid enough to where the Hashimoto's produced the symptoms, and then you eventually got the diagnosis. So, there had to be this...it's called the prodromal period, the stage where the antibodies are elevated but there are no symptoms yet, and that's the case in every autoimmune disease that they've looked at, that you have to be killing off the tissue with elevated antibodies. You're killing off more cells than you're regenerating. That has to go on for years before there's ever a symptom.

So that's the case for, I think, everyone that gets diagnosed with an autoimmune disease. And when they had their physicals, their doctors never thought to do these tests. Well, let's check you for the autoimmune disease, Hashimoto's. Well, why? You feel fine. What would they do that? there is no evidence for them to do that. Now we know about this prodromal period that occurs for years before there were ever symptoms.

So the case that you're referring to is a 44-year-old guy that came in to me, and his father had died at 44 of a massive coronary, and his 2 older brothers died in their early 40s of massive coronaries. This was the last male in the family. His last brother died when he was 28, and so he went to a cardiologist right away who said, "You're fine. You're perfectly fine, but let's put you on a statin to protect you." And so he had been on a cholesterol-lowering medication, didn't need it, but he'd been on a cholesterol-lowering medication for 16 years by the time he came in to me. But he had done his research. He was a smart guy, and he knew to take

the right vitamins to minimize the complications of taking a statin. And he was the picture of health. His body fat was 16%. He exercised regularly. He was very fit. He never ate junk foods, never because he knew that there was something going on in his family, and so he wasn't gonna do that. He had a successful job, a successful marriage, healthy kids, great family life, really happy guy at 44 years old, but he came in to see me and said, "I heard about your tests. I wanna do your tests."

We did the test, and all three antibodies to his heart were sky high elevated, sky high. And he said, "Why is that?" Because he feels fine. "Why is that?" and I said, "I don't know. Let's find out." It turns out that he had elevated antibodies to wheat and to dairy. He was sensitive to wheat and dairy. He didn't have celiac disease, but he was sensitive to wheat and dairy. So, we took wheat and dairy out of his diet. I didn't do anything else, because he's already on a lot of good vitamins. Six months later, we redo the blood tests. The heart antibodies were down to normal, that the molecular mimicry... The AABCD from wheat or dairy, I don't know which one or maybe both, the molecular mimicry fighting those environmental triggers... Remember the outside environment includes foods. Those environmental triggers that he was sensitive to were triggering a molecular mimicry response with his heart tissue, and it was killing off his heart. When he got those environmental triggers out of his diet, so he didn't have the exposure to them anymore, the antibodies to the dairy and the wheat went down, and all three heart antibodies went down to normal.

And he came back in and said, "You saved my life." And I said, "Well, I don't think so. The researchers that did this work did this, and you followed through. Way to go because once you've got elevated antibodies, you've got to be squeaky clean, no cheating ever." And why is that? Well, let's go back to general measles. General Measles with the vaccination and when Arnold has killed off all the measles bugs from the vaccination, and General Measles says, "All right, turn off that assembly line. We don't need any more measles antibodies right now." General Measles is vigilant the rest of his life. So that if measles ever comes back into the bloodstream again, General Measles just has to flip the switch. So his job now for the rest of his life is to protect you from measles. That's what he was directed to do.

General Measles is called a memory B cell. The purpose of memory B cells is to protect you from what your immune system has said is a problem. And they're there with you the rest of your life. And you may get a booster shot 15, 20 years later and, you know, you might need it every once in a while just to wake up General Measles or General Dengue Fever or General Yellow Fever, but they're with you the rest of your life.

Once you make elevated antibodies to wheat, you produce General Wheat, and General Wheat is a memory B cell to wheat. Once you produce those elevated antibodies, and you've got a memory B cell to wheat, when you get wheat out of your diet completely, or dairy, or whatever it is, when you get wheat out of your diet completely, the antibodies go down, General Wheat is now vigilant the rest of his life. If wheat ever comes back into your bloodstream, General Wheat just has to flip the switch, and you've got antibodies within two, three days. And if molecular mimicry is with myelin basic protein, you start attacking the myelin, the Saran Wrap around your nerves, the MS mechanism starts right back up again.

That's why once you've crossed the line, and you have elevated antibodies to wheat, you can never go back to eating wheat. There's never been a study that shows it's safe to go back to eat wheat, because you've got memory B cells once you've crossed that line.

Katie: I think that's one of the things that's so important about the work you're doing, because I know... I think it was last year, there was all this media frenzy about, you know, the doctors were saying that unless you

actually have diagnosed celiac disease, you should absolutely not avoid gluten because it's less healthy. And I know you and I had a conversation on this, but you really bring to light the fact that that's only one small factor when it comes to gluten sensitivity or a sensitivity to, like you said, something else in the environment. And I think you provide that data, like, looking at that dashboard with testing, like you say, is very empirical unless you see that picture. And then you still have to make the decision to follow a protocol and to get better, but at least you know the direction to take.

So, I'm curious. What are some of the other things that you're seeing people reacting to most commonly?

Tom: Oh, my gosh. You know, in today's world, besides wheat and dairy, the big picture problem here... We now know there are five different types of Alzheimer's, for example, and Type III is called inhalation Alzheimer's, and it's what you're breathing in. That's the gasoline on the fire that goes up to your brain. Back in the late '90s, the study showed that dogs in Mexico City, every dog that they did biopsy on, every dog had evidence of Alzheimer's in the brain, the beta-amyloid plaque in the brain, every dog that they did biopsies on. And in the mid-2000s going up to 2010, blood tests came out that could start identifying in children whether these mechanisms were going on in children. Now we know, every child that they check in Mexico City has evidence of brain inflammation and early Alzheimer's, every child in Mexico City that they test.

It's unbelievable when you look at this, because the air pollution is so bad in Mexico City, and there are many cities in this country where there are inversions in the fall. For example, Missoula, Montana, Denver that they're called... They are inversions in the winter when a city is nestled in the mountains that the smog can just sit in there in the wintertime, and people are breathing the smog every single day. And what you breathe in can be just as much of gasoline in the fire as any foods that you eat or the mercury and fish can be just as bad and what you breathe in. And what we're finding more and more of today per people in terms of inhalation brain deterioration is mold - mold in the house, mold that creeps in from poorly cleaned, flooded basements, and showers, bathrooms that don't have fans when you're steaming it up every day, and mold develops. And that can be the trigger for you.

There's a whole world of toxins that we're being exposed to now, and that's why we started off this interview with Einstein's quote that we have to up our game, that you young mothers really have to learn this stuff. Not the science geeky stuff but just the basic principles so you can ask the right questions to protect your family. So it's not just, "Is wheat a problem or not?" That's an important question, but it's, "What's the home environment like?"

And the book, you know, our book, "The Autoimmune Fix" has so many tips in it. Here's two tips that I'll give you as examples. Everyone has had the experience when you pump gas. You know, you're standing there pumping gas, and you can smell the gas. Everyone's had that experience. That means you're breathing benzene, and benzene goes right through your lungs or right up your nostrils right up to your brain. And it's a carcinogenic substance, and it's a neurotoxin. It's toxic to your brain and your nerves.

So what do you do? Because you've got to pump gas, well, if you're smelling the gas, it means you're standing downwind. Walk around to the other side of the pump to the hose. Stand upwind so that you don't smell that stuff when you're pumping it in. You know, little simple things like that that we just don't think of.

Why is it that everyone should take their shoes off when they walk in the house? It's not some Zen Buddhist thing. Rather when you were walking home, you walk past your neighbor's sidewalk. You walk in the sidewalk.

Your neighbor sprayed the sidewalk yesterday with Roundup to kill the dandelions. You now have Roundup on the bottom of your shoes. You walk in your house with your shoes on the carpet, you now have Roundup on your carpet. Your infant kids are crawling around on the carpet, they now get Roundup in their hands, in their arms, in their face, or your teenage girls are laying on the carpet doing their homework on their computers, they now get Roundup on their hands, in their arms, in their face. So that's why you leave your shoes at the door.

Why is that you don't want the plastic lid on the coffee cup when you go to the coffee shop? Because a plastic lid is loaded with Bisphenol A, and the steam from the hot coffee or tea goes up to the underside of the lid, condenses on the underside of the lid and drips back down in the coffee loaded with Bisphenol A. You then put the cup up to your lips, and all the hot liquid hits the underside of the lid tapers down into the opening of the lid into your mouth loaded with Bisphenol A. Bisphenol A binds to your estrogen receptor sites. Do you wanna know why autoimmune diseases are nine times more common in women than in men? This is why. It's because these environmental toxins that you're exposed to that are called endocrine disruptors, hormone disruptors, and they bind onto your estrogen receptor sites in your body, and it throws your entire estrogen, progesterone, testosterone ratios way off, way off.

It's the toxic chemicals. It's the formaldehyde in the pressboard of the kitchen cabinets that's outgassing, if your kitchen cabinets are made of pressboard. It's the antibiotics that are sprayed on the vegetables. There are so many chemicals we're exposed to that cause damage in our bodies. It's overwhelming. It's really overwhelming. And the only way we're gonna make the change to save the planet is if you young mothers learn about this stuff, and protect your kids, and protect their brains so that their brains stay as pure as possible so they can think outside the box to figure out how to clean up this planet that my generation has made so toxic, and your generation got born into.

So, it's the environmental toxins that get into our body whether it's from food, whether it's from the air that we really need to protect ourselves from, and that's why your immune system which is designed to protect you, these environmental toxins bind on to your proteins and your cells, whether it's albumin or receptor sites, and you form what's called a neoepitope, a new compound. So when chlorine binds onto your thyroid receptor sites, that forms a new compound, and your body makes antibodies to those compounds. Wheat binds onto receptor sites in your body for transglutaminase, and you form a new compound. And you make antibodies to that new compound, and that triggers the whole inflammatory cascade.

I'm sorry. I don't wanna get so technical on this stuff. It's just that it's overwhelming. But if you learn it in little bits and pieces one step at a time, you will be able to dial it down in a healthy way to protect yourselves and your family.

Katie: I'm with you 100% on that, and I know I have a lot of blog posts as well about reducing the chemical load in your home. And I think a lot of parents don't even realize that some of the stuff we put on our kids are the most toxic things like the spray sunscreens with the oxybenzone, and the baby shampoos that are some of the worst offenders according to the environmental working group. And so I love that you talked about this also, but I think some of those small changes can make such a big difference. Like, start there. Even while you're still trying to figure out the rest, just start making the little switches that you can.

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This episode is also brought to you by Primal Kitchen, all the good kitchens today. It's founded by my friend, Mark Sisson of Mark's Daily Apple. The Primal Kitchen is now my source for some of my favorite kitchen staples. So if you haven't tried their delicious avocado oil mayo, including their chipotle mayo, you are seriously missing out. I have made my own mayo for years and years because there were never any good options to buy that didn't have vegetable oils in them and now there are. Primal Kitchen has completely changed that with their products. They also have some delicious pre-made salad dressings and we use their products all the time. You can check them out at primalblueprint.com and if you use the code `wellnessmama` you get 10% off any order.

Katie: But I also want to make sure that we kind of switch gears and leave people with hope, because certainly I know it was overwhelming to me when I first started researching autoimmune disease and found out that I had one. And the good news is and you speak about this so well, there really are solutions, and you can feel so much better. And you don't have to have the same fate that so many people suffer. So let's talk about first, in our kids, how can we prevent these autoimmune conditions to begin with. What are some of the most important things we could be doing for our children?

Tom: Oh, thank you. The most important thing you can do is to identify what are called antigens, the things that your immune system say are a problem. It doesn't matter whether I think they're a problem, or you think they're a problem. What matters is what the child's immune system says is a problem. That makes the biggest difference. So, identifying what those problems are. And there are tests that you can do. For example, scientists tell us today there is no need. There's really not much... There probably is a need, but its value is not that great to look at, "Do I have Bisphenol A in my body?" It's a very, very toxic chemical, but everybody's got Bisphenol A. So if you do a urine test, everybody's got Bisphenol A.

So, the value of identifying that has been lost for years now, because everybody's got it so it gets poo-pooed. Of course they've got Bisphenol A, but what's important is, do you have antibodies to Bisphenol A? Does your immune system say, "You've crossed the line on this toxin. We need to fight this now?" Because if you've got antibodies to Bisphenol A, you now are attacking Bisphenol A. And where is it? It's on your estrogen receptor sites.

So, if it's attacking the estrogen receptor sites on your uterus, you've got uterine dysfunction or on your ovaries. You've got ovarian dysfunction, or for men, on their testes because there's estrogen receptor sites in the testes and they get testosterone dysfunction. It's unfortunate, but the average today is men have 30% of the testosterone that their grandfathers had at the same age. We have one-third the testosterone our grandfathers had.

So the first thing is to identify what does your immune system say is a problem. And in protecting your kids,

Moms, the more you learn about this stuff... For example, get rid of plastic containers to store food in. They all leak. Let me say that differently. They all leak. I'm sorry. I'll say it differently one more time. They all leak. Get glass containers for your food that goes in the refrigerator. When you go to the coffee shop, you take a stainless-steel mug and say, "Fill it up," and don't use their paper and plastic lid containers. And for your kids, I would strongly advise not using flame-retardant clothing. I've not heard of many children that were saved from a fire because they were wearing flame-retardant clothing. And these flame-retardant clothing are very toxic to the body. Yoga pants, a study just came out recently that shows that the chemicals in yoga pants because what they're made of are carcinogenic. So, we have to go back to cotton, and wool, and, you know, things like that, the more natural fabrics.

But the most important thing you can do, moms, is to understand this dynamic and create a safe home environment. And you don't do that in one day. I mean it's a learning curve, and so what I recommend to moms is one hour a week. If you spend one hour a week dialing into this stuff. You know, we have a whole online education system that we're just launching right now. And the emphasis, just one hour a week, if you do that, in six months, you've created a very safe home - a safe home, a safe kitchen, your kids are vibrant and healthy - because there is so much to learn so you want to be patient with yourself. You want to be kind and don't think that you're gonna get it all at once, because it's too overwhelming.

The other primary thing I would do is, if you're gonna focus on one thing for your children's health, it's their microbiome, the good bacteria in the gut. There is nothing that gives you more bang for your buck in terms of creating healthy bodies than working on a healthy microbiome. There are so many things that are important like drinking enough water, getting enough vitamin C, enough of the B vitamins, enough of the minerals. All those things are important, but nothing gives you as much bang for the buck as working on a healthy microbiome.

And the things that I recommend, there are two basic things, many others, but there's two basic things that every mom can do. One is inoculate your kids with the good bacteria. How do you do that? It's not the capsules of lactobacillus and Bifidobacterium. Those are helpful. They certainly can help, but your children have thousands of different species of bacteria in their gut. And if we give large amounts of one or two, that throws everything out of balance. It's gonna help a little bit, but what's more important is to inoculate with many different families of beneficial bacteria. And how do you do that? You do that by having a little bit of fermented vegetables every day.

What I suggest mom does is, you know, go to Whole Foods or a natural food store, or better yet, make your own and learn how to do that, but you can go to Whole Foods, and you buy non-pasteurized fermented vegetables, and I suggest five different types, that you get some sauerkraut, and you get some kimchi, and you get some curry-flavored. And you get fermented beets, you know, and you get Italian flavor. There are many different flavors, and as adults, you have one forkful a day, one forkful. And kids, maybe a teaspoonful, and if they don't like it, mix it in their mashed potatoes, and they won't taste it. You know, mix it in their food. It doesn't matter if they taste it or not, but what you're doing is you're inoculating. And every family of vegetables that ferments produces different types of the good bacteria, of the thousands of species that we need. Every family of vegetables when they ferment produces different beneficial bacteria. So don't just eat fermented sauerkraut, or fermented carrots every day. Have some fermented carrots, and some fermented bok choy, and some fermented beets, and vary it. That's the first action step in beating a healthy microbiome.

The second one is Mom, when you're shopping, go through the vegetables section and get a couple of every

root vegetable the store carries, whether you know what to do with them or not. Get turnips, parsnips, rutabaga, yellow beets, red beets, carrots, sweet potatoes. Stay away from white potatoes because it affects your insulin and your blood sugar quite a bit. Sweet potatoes do not in the same way. But you get root vegetables because the root vegetables...and you have one or two root vegetables every day as part of the meals that you prepare.

And what I do is I just dice them up, and I sauté them in a little olive oil and garlic, and it goes into whatever I'm making. You know, I just have this little plate of sautéed root vegetables. Now, sometimes I throw a bok choy in there or carrots or something, because the root vegetables are...it's the family called prebiotics. Now the good bacteria's called probiotics. The root vegetables are the prebiotics that feed the probiotics in your gut.

And when you go wheat-free, one of the problems in going wheat-free, a major problem is that for most Americans, 78% of the prebiotics they eat are wheat, because there's really good prebiotics in wheat. There's some really bad proteins in wheat, but the prebiotics are good for you. So you're feeding the good bacteria with the prebiotics in wheat, they're called arabinoxylans, and there are some others. So, when you take wheat out of the diet, you're getting rid of the prebiotics that make up 78% of the prebiotics for most Americans. And a few months down the road, because you haven't been feeding the good bacteria anymore because you're not eating wheat anymore, the result is you lose the good bacteria, and you get more bad bacteria.

So when you go wheat-free, one of the things you have to do is to be conscious of adding new prebiotics. And it's really easy. Just get the root vegetables, get a little bit of root vegetable in your diet every day, and you've dialed it in. That's it. It does a great job.

So those are a couple of things that you can do for your kids right away, focus on their microbiome. Nothing's more important than that. And there's one more, especially, and I did a YouTube video on this. It's what's do you do after antibiotics, but you don't need to only do this after antibiotics. You can do it at any time. And that is in England, this is from my friends, Dr. Michael Ash and Antony Haynes. They call it stewed apples. Here in the U.S., we call it applesauce. And you take a few apples. I'll do four at a time. Dice 'em up, throw 'em in a pot, pour water in there to about one-third the level of the apple, just about that. I put a bunch of cinnamon in there and a few raisins, bring it to a boil for about 5 to 8 minutes until the skin of the apple starts to glisten. When it starts to glisten, turn it off. It's done. That's all there is to it, 5 to 8 minutes. That's all it takes. The glistening means that you are releasing the pectin from the apple so that it's easily accessible.

And when you eat the applesauce... After antibiotics, you have 4 or 5 tablespoons of this, 2 or 3 times a day. When you eat the applesauce, the pectin triggers increased production of a compound in your gut called intestinal alkaline phosphatase, IAK. IAK is really a good guy. It helps to seal the gut when you have leaky gut from antibiotics. That's intestinal permeability. IAK helps to fix that. IAK increases the good bacteria in your gut. It's an antibacterial for the bad bacteria. It builds a barrier to protect you when the leaky gut is healing. So having a little bit of applesauce every day is a great thing to do.

When your kids are not post-antibiotic but just in general, I'd give them, like, 3 or 4 tablespoons, a couple, 3 times a week or more. Very safe, very healthy for them. And this is where the whole premise of an apple a day keeps the doctor away came from, because it really does. It helps to heal intestinal permeability. It increase IAK which, as a result, you've got a healthier gut and a healthier microbiome. So those are a few things that

moms can do to protect their kids.

Katie: Those are super helpful, and I'll make sure to include links. I know we both have posts on these, so those links will be in the show notes. But what about someone who maybe, because of symptoms or a diagnosis from a doctor, knows that they already have some kind of autoimmune diseases or just strongly suspects that they do? What course of action would you suggest for people in that scenario?

Tom: Oh, you bet. You bet. And that's a really good question. Thanks for that. I think the most important thing you can do, and I'm sincere about this, is read my book. It's not that I wrote the book, but rather it's the game plan. Once you understand the game plan, it's a big picture game plan. It's gonna take you six months to a year to arrest this thing and then reverse it. It'll take that long, but you have to understand the big picture of how to... There is no pill that's ever going to reverse MS. There is no pill that's going to reverse rheumatoid arthritis. There is no pill that's going to reverse Hashimoto's. We have to stop thinking that way, and we've grown up in a society that believes when you've got a symptom, do something to get rid of the symptom. Well, that doesn't work anymore. We have to up our game in how we think, so that when you have a disease or a symptom, you ask the question, "Why do I have this?"

And here's the visual that I give. When you have a disease, a diagnosed disease, or if you have symptoms that keep recurring and you can't get a handle on, it's like you've fallen over a waterfall. You crash into the pond below, and you're just trying to stay afloat. You're looking for the life jacket to keep you afloat in this pond, and the water's falling down in there, and it's turbulent because the waterfall's pouring into this pond. And you're looking for the life jacket. How do I deal, how do I work with my rheumatoid? How do I work with my Hashimoto's? You're looking for the pill. It's never gonna work. The science of it is very clear.

The diseases that we're diagnosed with are just the names of mechanisms that have gone out of balance for years beforehand. So you have to understand this concept, and what you have to do is you have to go back above the waterfall, go upstream, and look at what fell in the river that eventually went downstream to fall over the waterfall to crash into the pond, and now you're trying to put a life jacket on to stay afloat. So, we have to understand this.

I'm sorry to tell people this, but you've got to understand the mechanisms behind what's happened to you, because your doctors are not trained in this. And they don't know how to arrest and reverse Hashimoto's. You ask them, and they'll think you're a nut case. Until you read all the papers, you listen to the podcast that Katie's done, the interviews that I've done, you hear the stories of hundreds and hundreds and hundreds of people, or you read the medical literature that's coming out that talks about all this, but your doctor doesn't have time to read all this. They don't know this. So, your doctors are great to give you a life jacket, to keep you afloat in the symptoms while you're there. Very valuable to do that, but you have to take your health and the health of your children in your own hands and control.

So that you start understanding the big picture, you ask the questions. You may not understand the technicalities of the answers, but it better ring true in your gut, and your intuition, that what this doctor is talking about as you ask the question makes sense to you. "All right, that makes sense. We'll explore that with you for a while." You have to start taking ownership of your health, and not handing it off to our doctors, because the track record, and I'm sure many of you have heard this before, in the last five years, consistently every year for the last five years, the World Health Organization ranks United States number one in the world in healthcare technology. We've got the very best technology in the world. And out of 57 industrialized

countries, we're ranked in the bottom 5 in healthcare results. For the last five years, every year, we're in the very bottom of the results.

More people get sick, more people die at earlier ages, our neonatal-infant mortality rate is the highest in the world of the industrialized countries. All these statistics that we never hear about, they don't want you to hear them. So we really have to wake up, and think differently. We have to up our game in how we think. That's why we started this interview with Einstein's quote. And so when you've been diagnosed or you're on the edge of a diagnosis, the best thing you can do is get a life jacket to stay afloat in the symptoms while you can, but read my book so that you understand this big picture mechanism, and then you're gonna go back and listen to a whole bunch of Katie's webinars, you know, and read some of the posts. And because you now know the questions to ask, and you're gonna start searching for answers to those questions.

For example, your family goes on vacation for a week or two weeks. You come back home. You walk in the door. Do you have to open the windows to air the house out? If you do, you've got mold in your house. And so now you're gonna start thinking, "I didn't know I had mold in the house. Maybe I better get a mold test done." And you're gonna start looking, "How do I test for mold?" And you're gonna figure out what to do. But you don't know the questions to ask right now. That's why listening to podcasts like this one are so great. What Katie brings out to the world is so great. And thank you again, Katie, for allowing me to be here today, because you guys, your generation is the generation that's gonna raise the kids that'll change the planet, because it's too late for us.

You know, the statistics are not good at all, but we can create the environment for our kids to think differently, to ask different questions, and to come up with different answers. And it starts with you understanding how to protect the health of you and your family. And to do that, you have to go upstream, not just wear the life jacket, but go upstream to find out why did this happen and deal with those whys.

Katie: Yeah, absolutely. And I think the same. I would say the same about you. You're doing such important work, and you're giving people this insight into figuring out what those questions are so that they can address them. And even if the answer isn't maybe what someone wants to hear, it probably isn't fun to hear that you can never eat gluten again. But, like you and I both know, that the end result and how much better you feel more than makes up for that, and I love that you're getting this information out there. And I'll make sure in the show notes to link to everything we've mentioned, especially to your book. But you also have thedr.com/gift, and you have access to your membership program there for 30 days at no cost. So, people can check that out. Are there other resources you would encourage people to start with on your site?

Tom: Oh, yes, thanks. The Gluten Summit that we did a few years ago, I interviewed 29 of the world leaders on this whole thing about wheat and gluten with celiac, without celiac. And when you listen to the Gluten Summit, it's jaw-dropping, and then it makes sense to you as to why we have problems with wheat today. It all makes sense. So that's the first thing. The "Betrayal" documentary series, it's at betrayaldocumentary.com, and there, I interviewed 85 of the world's experts on autoimmunity. Set the whole stage for this discussion today in "Betrayal" and in the writing of my book.

You listen to people like Prof. Yehuda Shoenfeld who 28, I think it is, of the PhDs who got their PhD studying under Prof. Shoenfeld...so, 28 of them, there are many more, but 28 of them chair departments of immunology in med schools and hospitals around the world. They're his students. And when you listen to him in the interviews talk about vaccines and autoimmunity, it makes perfect sense. What he says is that, "Dr.

O'Bryan, we are very much in favor of vaccinations." Obviously, they have saved millions and millions of lives. However, if a child carries the genes HLA-DRB1, they are highly susceptible to having a sensitivity reaction to aggressive vaccinations. In those children, in that small subset of children, it is recommended that caution is advised in the administration of vaccines." What he's saying is you don't give newborns hepatitis B vaccinations or six vaccinations in one day before they're one year old, because if they're HLA-DRB1, their system can't handle it very well, and they're the ones that are likely to have complications in their brain, and their nervous system. And of course, vaccinations do not cause autism. Of course not. You can't be fanatical and say that. And of course, vaccinations may cause autism. That's just pure science.

So when we look at it from that...when you hear Prof. Shoenfeld say this, it just makes sense that of course, vaccinations may contribute to autism. Of course. And the kids who are HLA-DRB1 are very high risk for this. So those are the kids...so that's all in the "Betrayal" documentary, and it's betrayaldocumentary.com, and thanks for posting that link.

And in the membership program that we're just launching, if you go to thedr.com/gift, you can look around in there for 30 days, and you'll see, "Oh, my God, there's so much information in here. There's so much." And the goal of the membership program, and I really want to emphasize this, and maybe, Katie, you can help me in the future on how to say it because I really don't know how to say it to this generation very well. My experience of this generation is they're wicked smart. They're wicked smart, and they want what they want, and they want it now. And unfortunately, with health, you can't have it now. It's a journey. It's a journey. And that's why it's going to take six months to a year to really get a handle on going upstream and figure out what happened. And my emphasis is if you allocate one hour a week, one hour a week to learning this stuff...and you may do one hour twice a week or four times a week, but if you don't think, "I'm gonna learn this all in the next two days," but rather be kind to yourself and be patient with yourself, you're going to find that six months from now, you have transformed your life and the life of your family.

So that's what the membership site is all about. You can look around there for 30 days, and we keep throwing new information there, like this new study that just came out on yoga pants. I'm shooting the videos on that tomorrow, how they can be toxic, and where do you find healthy yoga pants, and all that kind of stuff. So all of that is available for you.

And I guess I'd summarize by saying I'm hoping that you can embrace that this is a journey. This is not a handout, a textbook, a link where order this pill and you're gonna be fine. No, this is a journey. And when you learn how to address this, and up the game of how we look at this kind of stuff, you will win the ball game. I often say base hits win the ball game. Stop going for homeruns. Base hits win the ball game, and you will win the ball game if you're patient, kind, and get cutting-edge information.

Katie: Absolutely. And as a baseball fan, I love the baseball analogy, but I think it's such an important point. And, again, I wanna make sure I'll have all those links in the show notes so that people can find you and learn more. And I think we'll have to do a round 2 one day, because we didn't even get to touch on cholesterol, and LDL, and the gut that much. So we'll have to do a round 2, but I appreciate so much of your time. I know that you are an incredible wealth of information. You're helping thousands of people, and I appreciate you taking the time to share with us.

Tom: Thank you, Katie. It's a real pleasure to be with you, and with all of you who are listening, thank you for listening. Thank you for staying tuned in, and God bless you on your journey to better health.

Katie: Thanks, Tom. And thanks to all of you for listening, and I will see you next time on the Healthy Moms Podcast.

If you're enjoying these interviews, would you please take two minutes to leave a rating or review on iTunes for me? Doing this helps more people to find the podcast, which means even more moms and families could benefit from the information. I really appreciate your time, and thanks as always for listening.