ADDICTION SUMMIT

Keys to Living a Life Free from Addiction
Guest: Dr. Peter Osborne

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Dr. Paul Thomas: Welcome to this episode of the Addiction Summit. I'm Dr. Paul, your host. It is my pleasure to introduce to you Dr. Peter Osborne. He is the clinical director of Origins Healthcare in Sugar Land, Texas. He is a doctor of chiropractic, a doctor of functional medicine, of pastoral science, and board-certified clinical nutritionist. I call him my "Gluten-Free Warrior' "I've followed him for quite some time on that particular issue. He's really a leading authority on gluten sensitivity. He is the founder of Gluten -Free Society, author of *The Gluten-Free Health Solution* and *Glutenology*—a lot of gluten there. And he's done a series of digital videos, eBooks, authored the book, *No Grain, No Pain*, so we're definitely going to go into the gluten topic here.

He's also served as the executive director and vice president of the American Clinical Board of Nutrition. He is on the advisory board for Functional Medicine University. And he's been featured on Fox, CBS, Celiac.com, The Gluten Summit, People's Pharmacy Radio.

Welcome, Dr. Osborne, to this summit, the Addiction Summit.

Dr. Peter Osborne: Well, thanks for having me, Dr. Thomas. It's a pleasure to be here.

Dr. Thomas: It is absolutely a pleasure to have you on this summit. My own history was sort of—I think my initial addiction, if you could even call such a thing an addiction, was I was a pleaser. So I was always trying to please

people as a young kid. Then, I grew up in Africa. When I moved to United States to go to college, I left my entire support system. And I've only figured out recently that that was a huge stress in my life.

And I picked up cigarettes. I drank more than I should have. In fact, I have ultimately became a bonafide alcoholic. I'm 15 years no alcohol so I still am vigilant about that particular addiction in my life just because I think, for some of us, if you're watching this, as a person who's struggled with an addiction, you may there are certain addictions you just have to leave alone completely.

Anyway, I'm interested in your expertise. Have you had any personal challenges with any substances or behaviors? Or, I mean, you just look like a clean-cut guy, you probably never had a challenge in your life.

Dr. Osborne: Yeah. No, that's not true. We all have them. But I try to live the part that I try to help people discover. My only experience, personally, with addiction—personally, my own life experience was—I was in the military. I'm an ex-Air Force guy. And everybody smoked, right? So I got into this habit when I was in the military as a young man and smoked with everyone else. But realized very quickly it was a very bad idea. For me, it was not hard to kick. It wasn't my morphine, so to speak.

So when I decided I was done with it, really, the best thing I did to help me kick it was I exercised very aggressively. And I took a very strong high B complex multivitamin and I didn't have really any problems kicking it minus a week or so of headaches.

Now, I do have a lot of addiction in my family. And my grandmother actually killed herself. She committed suicide. She had horrendous, horrendous addiction with pain medications and with mood-altering medications. I've got other personal family members that have been alcoholics and that have been addicted to other type of mind-altering medications, bipolar disorders. They get connected with some of these drugs and then they get deeper into some of the other things.

So I've seen a lot of it around me. And I've seen it destroy a lot of lives. And I've just been blessed that I didn't allow it to destroy my life. And I was fortunate enough to overcome cigarettes.

Dr. Thomas: Fantastic. I've got a book coming out, *The Addiction Spectrum*, September 4th. And in that book, I outlined the fact that almost any addiction falls on a spectrum from—basically, it may just be vulnerable like it sounds like you have family history. But you didn't kind of carry any of those

addictions, except briefly the cigarette one to that end-stage like your grandmother was, unfortunately.

I wonder if you might talk to us a little bit about food allergies and what role those might have with addiction.

Dr. Osborne: Yeah. So a lot of people don't consider food to be an addiction. And so when you asked me if I had problems with addiction, cigarette was the only drug, right. But, technically, food is a drug, right. If we think about the definition of a drug, it's any substance that you can take that can change the way that you feel, think, or act. And food definitely fits that role.

And so, for me, growing up, it was food. Like my mom was really good at putting the wrong foods in our mouths like the dairy, the ice cream. We had a freezer full of Dolly Madison cupcakes and junk food like that. So it was grain and it was dairy that were really two of the big, we'll call them, addictions because that's really what they are.

So many people today struggle with addiction and they don't even realize they have addiction. They struggle really with a marketing problem because the industry, the grain and the dairy industry, has done such a great job of marketing garbage food that's highly addictive to the mass populous. And our society has done a really good job with socially accepting self-destruction through food.

Dr. Thomas: Socially accepting self-destruction. That is great. That's so true.

Dr. Osborne: Yeah. It is. And people don't recognize that this food can be highly addictive. And if I really struggled with any addiction, it was ice cream and it was fried pies. Growing up and being in high school, those were things that I was exposed to on a really frequent basis. And probably harder to kick those than really even to kick cigarettes.

But where my expertise came in and really was my experience in helping patients deal with gluten sensitivity and food allergies. And what I've come to find—because over the years, there's a lot of generic and generalized advise. You can go read books. You can go get on the Internet. You can read blogs and listen to podcasts. Even events like the one that you're so bravely putting on and I recommend people watch it. And I'm really happy that you're putting it on because it's very much needed. But those are generalized pieces of information.

And so what I found in clinical practices that you've got to get very specific because one man's food is another man's poison. One man's food is another

man's addiction. And even healthy foods can become toxic or perceived healthy foods can become toxic. And when it comes to gluten as it relates to addiction itself, there's actually a protein in gluten and dairy, both of them, called gluteomorphin and casomorphin, which mimic morphine receptors. And this is why these two food groups are, for some people, the hardest to kick. Because just like with an alcoholic, if you say you have a problem with alcohol and the alcoholic is not ready to admit the problem, they get irate, they get angry, they push you away, right.

How many people you know who have been addicted to food where you say, "Look, you need to eat healthier. You need to do…" They get angry. They get irate. They push you away because they have true addiction. Because these foods have morphine-like compounds that truly do create happiness, right? When you take morphine, it makes you calm. And it calms you down and makes you happy, right? It's like your happy food time, right?

And a lot of people who are addicted to wheat and they're addicted to dairy as a result of these morphine compounds. And they don't even realize they have an addiction. But they can act just like somebody who's addicted to morphine, only maybe they're not on the couch all day long like in a coma. But they still check out of life. They tune out of life. They're not quite as alert mentally, emotionally available. So it's very, very much an addiction.

Other foods can do it too. But gluten and casein have been the ones, they're probably the most well-studied as it relates to creating food addiction in people.

Dr. Thomas: Yeah. Now, I think that's such a great point. I mean, two-thirds of our country is overweight or obese. And at my work, I have about 30-some employees. And you go into the lunchroom, sadly—and I've been trying to fight this—somebody is bringing in some junk food. And I used to toss it in the trash. And I'd make other employees so upset, I just had to like kind of—I was taking away their support system. But yeah, family members struggling with weight, struggling with how to eat in a healthy way, so many of us struggle with that.

Did you always, yourself, sort of get this? Or was this a journey for you as well figuring out the food thing?

Dr. Osborne: That was absolutely a journey. After I got out of the Air Force, I really got into amateur bodybuilding. Again, that's part of what helped me kick smoking full time was just being more concerned about my overall health. So I got into amateur bodybuilding. I started graduate school. And really started learning about anatomy and physiology and biochemistry and

pathology and nutrition. And then it was from there that I really started looking at what I was eating. Because back when I was doing bodybuilding, I was 25 pounds heavier in a good way, but also in a bad way, because a lot of the things that I was using to support my bodybuilding weren't really all that healthy, the whey proteins. And then that, again, a lot of these things are highly processed.

So I really started analyzing what I was using to help my weight lifting and started to question it. Like why am I using this? Why am I actually taking this? Yeah, it's good for some things but it's actually horrid in other ways. And so taking my graduate level knowledge and information, I started to apply that in how I ate. And what it did is it really helped me transform, not just myself from a vanity perspective, because as a bodybuilder, you like to have a nice…

Dr. Thomas: Big, yeah.

Dr. Osborne: …in a sense. But it really became more about health. Not just being fit, but about being healthy, right. And I had to be healthy and I had to be present and I had to be there and be able to be there for them. And then going to graduate school, having patients, right, so now you have to set an example for the people. You can't practice one way and preach a different way. You can't say, "Do as I say but not as I do." It doesn't work that way. Nobody listens to you or takes you seriously if you don't take yourself seriously.

So, for me, the first lesson in all that really boils down to, if we're talking about addiction, the true nature of it psychologically is self-respect and self-love. And so you have to come from the position—for me, the avenue to that was working out and it was learning about the human frame and anatomy and physiology and nutrition. But it evolved into really a greater understanding of, 'look, I love myself first'. And as long as I love myself, I'm setting an example for those around me to love themselves equally well. And if we all love ourselves, that's not selfish to love yourself, it actually allows you to serve other people so much better. It allows you to become a better servant of mankind when you take care of yourself and you take pride in who you are and what you put in your body.

So for me, that really was the introduction of it, from an academic perspective into a love perspective. And then one of my very first patients—because part of me experience going through graduate school was working at the VA Hospital in the rheumatology wing. And in rheumatology, everybody that came in, rheumatoid arthritis and lupus and ankylosing spondylitis and psoriatic arthritis. All these people were in severe pain, chronic autoimmune disease, and they all had addiction, right. They all had food addiction. But they were all being put on methotrexate, which is an anti-cancer compound that also

lowers pain for arthritic conditions. And they were being put on steroids. And they were being put on disease-modifying antirheumatics. But none of them were getting better. Like, yeah, their pain was reduced but their health was deteriorating. And at the end of the day, they all came back needing surgery, right. Joint replacement surgery was kind of the final step in that whole mill of a process.

And it's very frustrating for me being in that environment because I kept going back to me attending physician saying, 'look, look at all these great wonderful research on gluten sensitivity and autoimmune disease. Look at all these great wonderful research on fasting'. Just not eating creates pain reduction in 48 hours, right. So if gluten can cause autoimmune disease and not eating can put autoimmune disease pain and remission in 48 hours, let's draw a line here. What does that really mean?

Maybe there's something that we're actually eating that can contribute to this pain and to this disease process or, at the very least, maybe we can get through nutritional counseling with these individuals, my fellow veterans, and see if we can get improvement with them. But I was scoffed at. I was told not to bring up nutrition anymore. And basically, somewhat summarily dismissed with those ideas.

And so one of my very first patients in private practice was a little girl. Her name was Ginger. She was terminal. I wrote about her in in *No Grain, No Pain*. She was nine years old. They gave her six months to live. Now, this little girl was so sick. Imagine, she grew up not being able to really crawl on the floor because her knees were so swollen. She had a very early onset, very severe arthritic problems. She had a permanent stent embedded in her arm because she was so frequently in and out of the hospital for pain medications and IVs.

And when the rheumatologist, after they had pretty much destroyed her immune system with medications, they just looked at her mom and said, "You know what? There's no more we can do. She's got maybe six months. You just going to have to go home and get ready for her funeral." She brought her to me, not as a first resort. She brought her to me as a last resort. And that angers me because there are so many—there are 50 million people with autoimmune disease. And I'm the last resort, not a first resort. But that's the way it is.

And so she brought her in. One of the first things we found was gluten sensitivity. We did genetic testing for gluten sensitivity. We found she was gluten sensitive. Within six months, she was alive. The stent was out of her arm. We were off medication. And this is within six months. This little girl is nine years old and she's had this disease almost from infancy. And now,

within six months, we've got her off of everything, running around and walking around and feeling good. And today, she's gone on now to graduate from college.

Dr. Thomas: Fantastic.

Dr. Osborne: That was my first experience in the power of how changing food could change somebody's life. In this case, it was autoimmune arthritis. In the case of addiction, everybody I've seen with autoimmune disease has food addiction. They're addicted to a way of eating that destroys their health.

Dr. Thomas: Yeah. I want to highlight something you said for our viewers and that was self-respect and self-love. Folks, if you were where I was when I was in the pit of my alcoholism, you lost that self-respect and self-love. I couldn't look in the mirror and say, "I love you, and I'm proud of you, and I'm happy with everything you're doing with your life." I couldn't look at myself. I had that emptiness inside.

And Dr. Osborne, what you're talking about here is so key. I was talking with—actually it was a son of mine who's had his own struggle with some addictions. And his counselor said to him—he's always beating himself up, right. When we're in our addiction, we're just internally, maybe mentally, we're beating ourselves up, beating ourselves up. And his counselor told him, asked him, "Would you be that hard on someone you cared about, like another person?" He says, "Well, of course not." Well, then why are you beating yourself up, right? And I think we do that when we're stuck, whether it's a food addiction or alcohol or substance or behavior.

We sort of—I don't know—we get helpless and hopeless and we beat ourselves up. I love how you just say grab hold of this opportunity to change. I think there's a key commonality between most chronic conditions. I wanted to ask you about this. And this has to do with the things that gluten and dairy trigger. And I'm talking about inflammation. I suspect there's a common aspect of inflammation for most chronic conditions including addictions. What do you think about that?

Dr. Osborne: There's no doubt about it. A lot of people who are chronically inflamed because of their food choices gravitate more towards foods that actually have anti-inflammatory properties. And when I say anti-inflammatory properties, let me reframe that, because it's not really anti-inflammatory properties as much as it is anti-pain properties. And so what I mean by that is there have been a number of studies—and I've seen this actually clinically correlate well—if a person is eating inflammatory-based diet and they're chronically sick, they will gravitate more towards dairy and wheat and other

grains because of the morphine content of these foods. The morphine content actually inhibits the pain process.

And so what it does is it sets the cycle for addiction because the very food that's creating the inflammation is also reducing the pain to a certain extent, allowing them to feel better for short burst of time. So when they gravitate to eat that bowl of ice cream, they feel better for 30 minutes because they get a dose of casomorphin within that. And they feel better and their mind feels better and they keep going back to it for that reward.

It's a very short-term food-based reward that they're going back for and that's an addiction, right. But it's the inflammation process that leads them back to that because they're finding that food gives them that quick brief reprieve from their pain or from their problem.

Dr. Thomas: Yeah. I have a brother who struggles with alcohol and he said to me when I finally got rid of my addiction or at least put it on the mild end of the spectrum—I don't ever feel like it's gone. He says, "How do you do that? Alcohol is my friend." I have a son who is struggling with marijuana and he says, "It's my medicine."

And whether it's food or a substance, when you don't have that thing to which you're addicted, you go through a bit of withdrawal. It's uncomfortable. And so your very substances making you ill and keeping you in bondage is also briefly helping you a little bit. And that's that vicious cycle of addiction.

Dr. Osborne: Yeah. We go back with the short-term reward. And there've been some really great neurological studies on short-term reward versus long-term vision. And then a lot of people that suffer with addiction problems actually have—they have a problem neurologically, seeing themselves in the future. Like they have a hard time seeing past a week, have a hard time seeing past two weeks. So they look for the moment in the now.

And that's why they tend to gravitate towards the now, the immediate reward, the immediate gratification as opposed to thinking, 'okay, what is this immediate gratification going to do to me next week, the week after that, a month after that, five years after that?' and that's where they can get stuck in that cycle. And that's where, going back to what I said earlier about self-love is, that self-love means thinking about what things are in your environment are actually going to do to you, not just today, right now, right in this moment, but also into the future.

But the other part about inflammation that I wanted to point out, because you asked that question about inflammation, is that chronic inflammation actually

creates nutritional deficit. So a person who's chronically inflamed, they use more vitamin C up. And vitamin C is very important as it relates to addiction and beating addiction. High doses of vitamin C have been shown to be extremely effective with certain types of medication addictions, with certain types of narcotic addictions, and even in alcoholism.

So when you're eating food that creates nutritional deficit, either because it's not nutritionally dense food and so what you're eating is just not healthy or because you're creating inflammation with the food that you're eating and that's creating your body to use more of its nutrients to try to combat the inflammation that that food is producing, you end up predisposed to developing an addiction because a lot of these vitamins and minerals act on your neurotransmitters or are important for your neurotransmitter production.

So as it relates to addiction, neurotransmitters like serotonin and dopamine are very, very critical to have good balance of those neurotransmitters. So if you're chronically inflamed, you can't metabolize your dopamine properly because of vitamin C deficiency. If you're chronically inflamed, you have less niacin that can actually help bring back into balance a number of the different types of neurotransmitters in your brain that help you think clearly, that help you think with a clear conscience as opposed to that fog.

Dr. Thomas: Yeah. B vitamins are really very heavily involved in many of those pathways for our neurotransmitters. I hadn't thought as much about vitamin C. I'm glad you bring that up. Nobel Prize winner Linus Pauling was big on vitamin C. And of course, you can get vitamin C from your food. But you'd have to eat a lot of oranges, cantaloupes, certain fruits and vegetables. Do you have your favorites you'd like to recommend for natural vitamin C?

Dr. Osborne: I like it all. I like dark cherries, a really good source of vitamin C. Broccoli is really great source of vitamin C. Adrenal gland is a great—if you like kidneys and adrenal glands, the adrenal glands store the vast majority of vitamin C in the human body. So if we're talking about, even in animals, where a lot of vitamin C gets stored, is because we need vitamin C to make cortisol, which is the stress anti-inflammatory hormone. That's why anti-inflammatory diets burn through our vitamin C because our adrenal glands need vitamin C to produce cortisol.

So if you eat the adrenal glands of a healthy animal, which are really tiny things and a lot of people veer away from organ meats or shy away from eating organ meats, but it's a great source of vitamin C in the diet. So I recommend that. But if you're really talking about beating addiction…And I learned a lot of this from, actually, Dr. Abram Hoffer. I don't take credit for any of this. But he

was a psychiatrist. And he wrote a really great book, if you're interested, called *Adventures in Psychiatry*. But his expertise was in schizophrenia. He was actually trying to identify, why schizophrenics? What was the compound in schizophrenia that was involved for it with the hallucinations and the changes in the thought processes?

And in his biochemical experimentation, him and his colleague came up with a substance or an idea of a substance called adrenochrome. And adrenochrome was a hallucinogenic agent. And people that were schizophrenic tended to not break down adrenalin properly. Adrenochrome is a byproduct of improper breakdown of adrenalin. And you need vitamin C and you need niacin to get this done. And so what they were doing originally is they draw out the structure of adrenochrome and they were like, what nutrients would play a role in helping to properly process this? And nicotinic acid or niacin and vitamin C were the two.

So they started experimenting. They would actually inject themselves with the substance, experience the hallucinogenic effect, and then take high doses of niacin and vitamin C to come out of the hallucinogenic effect. And in essence, a lot of what we know about mental disorder and vitamins and minerals, come from Dr. Abram Hoffer. He was a pioneer in his field and so we can apply that same component or that same notion about proper brain biochemistry and metabolism with vitamin C and niacin from the work that Dr. Hoffer did.

Dr. Thomas: Yeah. That's a very good point. I've heard of him but I haven't heard of that particular study. I have a handful of patients in my practice who struggle with hallucinations, some of them diagnosed with schizophrenia. I know for breaking down norepinephrine, the vitamin C, iron, SAM-e, these are things that can help that and the B vitamins, niacin in particular. What dose do you remember or know kind of the dose range for vitamin C that someone might want to take?

Dr. Osborne: With vitamin C, I recommend first doing what's called a vitamin C flush because we want to do what's called dose calibration. When we do a vitamin C flush, the way this is done, it's oral, not IV. Now, IV is a different animal altogether. I don't do IVs in my practice. I do oral. But if we're trying to figure out to titrate an oral dose, we start with a flush. And the flush is done where on an empty stomach, first thing in the morning, on a day where you don't have any plans.

Dr. Thomas: Because you're going to be in the bathroom.

Dr. Osborne: Yeah. You want a toilet nearby you and you don't want to be at work wearing white pants or something.

Dr. Thomas: Right, right.

Dr. Osborne: So you're going to take two teaspoons of vitamin C powder, because you want to use an ascorbate powder that's not corn derived. Very important that it's not corn derived. Corn-derived vitamin C tends to contain extra glyphosate and little presence in there that you don't want. So you want to get a non-corn-derived form of vitamin C powder that's buffered, preferably buffered, because it's acidic, right.

And if you make 20 grams of this stuff, it's going to create a lot of irritation in the GI tract. So it should be buffered with things like magnesium calcium, potassium, and zinc. And you take two teaspoons, which is equivalent to about 6 grams. And you mix that in three ounces of water. So two teaspoons mixed in three ounces of water. Stir it. Drink it every 15 minutes.

Dr. Thomas: You drink that amount every 15 minutes?

Dr. Osborne: That's right, 6 grams every 15 minutes.

Dr. Thomas: How long until you got diarrhea?

Dr. Osborne: Yeah. Well, for most people, four doses.

Dr. Thomas: Yeah.

Dr. Osborne: Four doses will do it. So in about an hour. But for some people and, especially in the addiction areas, we're talking 100 grams of vitamin C before they flush. We're talking 20 doses, right.

I mean there's a major difference for people that have addiction problems. And again, this is one of the reasons why it's so helpful. It's because they don't have any vitamin C and so they're more prone to those addictive qualities because they don't have a proper brain biochemistry going on. So we can flush them. And whatever that dose is, so let's say it took them—let's just say if they're taking 6 grams every 15 minutes, right, and it took them 50 grams to flush, okay, just easy number, right? Seventy-five percent of that 50 grams, okay, which is approximately 42 grams, and that's going to be the daily dose of vitamin C for the next week.

Dr. Thomas: They're going to have diarrhea all week, I think.

Dr. Osborne: No. Not if they split the dosing up, not if they split the dosing up. Now, if they do, you can titrate it down because this is about tolerance. So you're right about that. Not everybody is going to have the same level of bowel tolerance at higher doses of vitamin C. But if you do a calibration, you'll hit

the mark a lot more accurately to determine what dose is actually going to be therapeutic. Because a lot of people do 500 mg, even 2000 mg of vitamin C and that's like trying to spit out a forest fire when you're talking about addiction. I mean, it's not just going to happen at those levels.

So you really got to do a flush calibration where you're taking 75% of the dose that it took you to flush and split dosing through the course of the day. So you wouldn't take that 75% and take it all at once. You take that 75% and you take it in four to six divided doses over the period of your waking day, okay, so as to prevent a diarrhea episode in the middle of your day. And then repeat the flush about a week later. And what you'll find with that repeat flush is that it's going to take you anywhere from 10% to 30% less vitamin C to perform and to be successful at doing a flush. So the demand starts to kind of creep down as you're going through this process in what's normal for an adult? What's a normal amount?

About 20 grams. If you're not flushing within 20 to 24 grams of vitamin C, then you probably got a major chemical problem or you're in a deficit state. So if it takes, like if you do this protocol, those of you listening, if you do 6 grams every 15 minutes and you're not having a flush within four doses, this is going to be probably pretty helpful for you.

Dr. Thomas: Yeah. When you say flush, you're meaning diarrhea?

Dr. Osborne: That's right. Diarrhea. Not a loose bowel but diarrhea.

Dr. Thomas: And besides diarrhea, since I haven't ever done it to that high of a dose, besides the diarrhea, are there any other side effects you've seen in your patients?

Dr. Osborne: Fatigue.

Dr. Thomas: Too much vitamin C will cause fatigue?

Dr. Osborne: Well, afterwards, after the flush is over, the fatigue really comes from, if the diarrhea goes on for a long period of time—dehydrated.

Dr. Thomas: They get dehydrated.

Dr. Osborne: So a little bit of fatigue. And if that happens, you just lay down and rest. That's why I said, at the beginning, pick a day where you don't have anything going on so that you can just cater to yourself. And if you do get tired, honor the fatigue and take a nap. A lot of people feel energized though after a flush. They don't feel fatigued. They feel energized.

Now, one of the other side effects that can sometimes happen—this is quite rare but it does happen—is vomiting. And generally, what we see here is that a person doesn't follow the instructions properly. In essence, they take too little over too long period of time instead of taking the higher doses. So it's 6 grams every 15 minutes should prevent anyone from typically having that vomiting type of reaction, where we see people is that they skimp on the doses. Instead of 6 grams every 15, they're doing 3 grams every 15. So this thing is spread out over six or eight hours, right. And you just get too much fluid and too much C in their gut and they just vomit it up.

But if you stick to those higher doses, you'll get it done a lot quicker and you shouldn't have that type of side effect.

Dr. Thomas: Right. So I would just caution and you can add to this since people might try what you're recommending here. You want to be well-hydrated, I'm guessing, so as to avoid dehydration. And if you have underlying medical conditions, obviously, consult with your provider or your physician.

Dr. Osborne: Yeah. I mean, where people get scared is if they've got a history of kidney stones. I've never seen a vitamin C flush induce or create a kidney stone. It's one-day event. And really, if you use proper ascorbate, unless your kidney stones have been identified—And a lot of people they've had a kidney stone but the reason they've had a kidney stone more is because they're vitamin D deficient or they have a parathyroid issue, not because of vitamin C. So there's kind of a misconception that vitamin C contributes to kidney stone formation. So for those of you who may have that history, there's really not a great risk in doing a vitamin C flush or vitamin C therapy with kidney stone history.

Dr. Thomas: Yeah. Fantastic. Well, folks, there's a practical tip you can definitely try to get your healing ongoing. Remember to love yourselves, right. That's just a pearl that you've given us. I'm so appreciative of that.

I know you've talked in the past about auto-brewery syndrome, I'm real curious if you might share with our viewers what that is.

Dr. Osborne: You know the old adage, which came first, the chicken or the egg?

Dr. Thomas: Yeah.

Dr. Osborne: Yeah. So a lot of people with gluten sensitivity, they're eating gluten and they're getting the morphine-like protein from the gluten. And so they feel good about it even though it's creating illness. And what oftentimes

will happen is immunosuppression over time. So when a person—and I'm using gluten sensitivity just as an example. It could be other foods as well. But when you eat a food that creates immunological warfare, meaning your immune system perceives the food as an inflammatory enemy, then you're using immune system resources to battle your nutrition. And the purpose of eating is to be nourished, not to be malnourished.

So when people make the bad food choices, they create a state of malnourishment. And what happens is their immune system is constantly attacking their food. So it loses the war against everything else. Remember, our immune system is designed to protect us from bacteria, to protect us from parasites, to protect us from yeast, to protect us from viruses, right?

And so what happens for a lot of people in the gut, is they get a yeast overgrowth, okay? And the yeast is very, very common. It's actually one of the most common co-conditions associated with addiction, is yeast infection. And it's a gut yeast infection. So not necessarily even oral thrush where you see that white on the tongue, But we're talking about a GI tract yeast overgrowth.

Well, what happens when you have an overgrowth that is an abundance of yeast in the GI tract, what can happen is something called auto-brewery syndrome. Yeasts are fermenters. So if you're eating a lot of grain-based foods, the yeast takes that grain, takes those carbohydrates. And within about five hours, produces alcohol because that's what it does, right? How do we make wine? We take sugar and we take yeast. And we get wine, right? We take the sugar from grapes.

So people that have high carbohydrate diets, which typically is very, very common with those suffering with addictions—they're heavy, heavy carb loaders—they're eating all this carb. They've got a yeast overgrowth. They're creating alcohol. If they're trying to beat an alcohol addiction, right, and they're gravitating to a high-carbohydrate food, they will never be successful at beating that addiction, because they're just going to create their own alcohol. Their gut becomes the distillery. And they produce their own alcohol because of the fermentation of the carbohydrates within the GI tract, aka auto-brewery syndrome.

Now, I've seen patients come to me who I literally could've sworn that they were drunk. Like literally, their yeast overgrowth was so severe that they were jaundiced. Their skin was yellow because of liver damage. Their eyes were yellow. They had slurred speech and they had what was diagnosed as cerebellar ataxia, meaning dizziness or imbalance, right? And they were accused of being alcoholics even though maybe they weren't alcoholics because they had such a severe yeast overgrowth.

Dr. Thomas: And you treat their yeast and their problems go away?

Dr. Osborne: Treat the yeast and the problem goes away. So if you really find yourself—if you're an admitted alcoholic and you know you have a problem and you're trying to get help and you're really, really struggling, you want to have a doctor. My advice would be have your doctor check your GI tract for yeast overgrowth because a lot of times where people hit a wall and they keep going back to the alcohol and they keep staying addicted to the alcohol is because they're making their own and they never really truly get dry.

Dr. Thomas: Interesting, interesting. I have a nephew who was in a blackout and some bad things happened while he was in his blackout. He's young, early 20s. And he told his girlfriend that he had this rare condition where his body just manufactured alcohol. And I think it was just a great story. But you've got examples where that truly was happening due to yeast overgrowth.

I don't want you, summit watchers, to go home and have a new excuse now. "It's not my fault. It's my yeast." But there's something you could take care of though, right? I mean, this is—

Dr. Osborne: Right. I mean, yeast overgrowth is simple to take care of if you recognize it. And what I would encourage anyone listening to do, deal with a good functional medicine doctor, have them run a smattering of stool samples, meaning not just a single day but at least a three-day stool sample to get, one, the determination of whether or not you have a yeast overgrowth; two, to identify the species of yeast; three, to do what's called a sensitivity test where you can identify what types of agents are going to be effective at killing the yeast that you have. Because a lot of people have a yeast overgrowth and they go online and they say, what helps naturally with yeast overgrowth?

Because maybe they don't want to take Diflucan or some of the other –azole antifungals. And so they want to do it like with oregano or they want to use Uva ursi or berberine or some kind of natural plant-based antifungal. And the problem is, if the yeast that they have is actually resistant to the natural antifungal that they choose, then they could be completely ineffective at addressing it. So working with a functional medicine doctor, you can actually identify the species and you can do a culture sensitivity of what will kill the yeast that you have and actually go on a protocol where you're more successful.

And then of course the other thing with yeast overgrowth, because the most common causes of yeast overgrowth aside from alcoholism, remember alcohol feeds yeast too. And that's part of the issue is that the more alcohol you drink, right, the more you run a risk of immune suppression, vitamin deficiencies,

and yeast overgrowth. And then it becomes a self-fulfilling prophecy, which is why a lot of addiction is struggle.

So you really want to make sure that, again, you're getting proper help in identifying what it is and how you can go about it. But antibiotic use can create a yeast infection. That's another very common cause that we'll see. And so people that eat meats that are—I understand that a lot of the feed, they don't inject the cows and the cattle with antibiotics, but a lot of the feed contains antibiotics.

A lot of the antibiotics that's used we're getting transference of antibiotics through eating meat that isn't properly cared for, that is mass farmed. So when you're choosing your foods, grass-fed beef, free-range organic chicken, wild-caught fish, is going to minimize your risk of getting antibiotics from the food that you're eating.

And then of course, your water. If you're drinking water from the city, it's chlorinated or it's got chloramine in it. And this is a natural antibiotic. So if you're drinking this every day without properly filtering your water, you're putting an antibiotic in your GI tract and you're predisposing yourself to a yeast overgrowth.

One more simple thing that can predispose you to this is buying non-organic produce because of the pesticides. The pesticides act as antibiotics in your GI tract. So if you're buying conventional food, you're also being exposed to something that has an antibiotic property that can predispose you to yeast overgrowth.

So again, look at what you're eating to try to prevent the problem from happening. But deal with a good functional medicine doctor who can actually run some tests, help you identify very, very specifically how you can go about taking care of the yeast overgrowth in a manner that will be very, very helpful for you.

And then the last thing is a probiotic. One of the most effective ways, especially if you have all those other foods and all those other exposures, is a strong dose of probiotics. And when I'm talking about a strong dose, most supplements that you buy over the counter are anywhere from 10 to 50 billion colony-forming units per pill or per dose.

Dr. Thomas: If that.

Dr. Osborne: If that, right. And so when I'm talking about a strong dose, I'm talking about starting dose of about 200 billion. So it's four to five times

higher than what you're going to find in most probiotics that you would pick up over-the-counter. So you really want to look for a strong one, okay, if you've got an identifiable yeast overgrowth and you're really trying to colonize your GI tract and prevent it and to help eradicate it. So those are just some strategies that your listeners can implement today, right now, that might be very helpful if that's what they're struggling with.

Dr. Thomas: Yeah. Now you brought up a number of really important points that I think are central to healing. And that's healing the gut, so that everything else follows: Your brain, your immune system, autoimmune problems can start going away. You've mentioned functional doctor, functional physician. And I think some of our viewers are probably new to that term. And I would throw out there that most of your functional doctors, these are doctors who look at root cause.

So they're really trained at identifying why you're presenting with your problems or symptoms as opposed to just, 'oh, you've got a symptom, here's a prescription, here's a Band-Aid'. But I know a lot of chiropractors are trained in functional medicine. A lot of naturopaths are trained in functional medicine. There are integrative MDs and functional medicine MDs. Would you say that's about right as far as finding a functional medicine doctor?

Dr. Osborne: I would. I mean, there are a number of different professionals. I've even seen a licensed acupuncturist, doctors of acupuncture, who've been trained in functional medicine as well.

And I think if you're really in your area, if you're looking for a good functional medicine practitioner, just a couple of tips; number one, when you're calling them, ask them how long they've been practicing functional medicine. Because a lot of them that are certified, they may have just gotten a certification recently or they may have not been practicing functional medicine very long.

Maybe they have a 30-year career in traditional medicine, right, or whatever their profession is, naturopathic medicine or chiropractic medicine, but they're just brand-new to functional medicine. And that's not to say—that's not to discourage those doctors from getting certified and getting experience. But if you struggle with a really chronic health issue and you want somebody who's really experienced to help you and not somebody who's a little bit green, you really want to try to find somebody with a minimum of five years of experience practicing functional medicine.

But that would be the question that I would ask. Are you certified? Where did you get trained? How long have you actually been practicing that training?

Because I know a lot of doctors from all those professions who have the functional medicine training but they don't practice functional medicine in their practice.

Dr. Thomas: Yeah. Now, that's a good point. So I was initially a pediatrician. I've been an MD for over 30 years. And it's only in the last 15 years that I've been really working in the integrative functional medicine world. But for the first five or 10, I was winging it. Because I didn't have intensive training. You go to seminars, you get some training. But until you're working with patients and you're doing it over and over again, and that becomes your way of thinking, then you can really get to root cause. So, very good point.

Dr. Osborne: And a lot of people don't realize that in functional medicine training, there are great training programs out there but none of them are clinical. So to get the clinical experience, you either have to work as an understudy with somebody else to get that clinical experience and teaching directly. Or you have to have in-the-trenches kind of experience. Because there's no formal residency. There's no formal kind of rotational program that people can actually do that's pure clinical beyond a few weeks. I mean, there are few programs that I've seen people have that are few-week long where they can go in clinic. And I actually train functional medicine in my clinic. I have doctors come out. But it's not extensive. It's not a year. It's not two years.

Dr. Thomas: The whole residency.

Dr. Osborne: Yeah.

Dr. Thomas: So, because gluten is such a big thing and you're such an expert in that area, let me share a little insight and then you can take it from there. In my practice, I've been doing IgG food sensitivity testing for about 15 years. And I've seen the percentage of patients who have a really high level of sensitivity to gluten by that particular test go up from about 50%-60% to about 80-90%, if I'm dealing with any kind of chronic condition.

Is that a test that you use and what would you suggest, besides finding a functional doctor who can do some testing, what other tips would you have for folks who might be struggling with inflammation, just feeling lousy, they're addicted to whatever, and they're hearing us talk about, ha, gluten. How might they go about actually making that change?

Dr. Osborne: Well, let me answer the first question first. So, with IgG testing for gluten, depending on the lab that you're using, there are a lot of different labs and there's even different types of IgG, there's type 1, 2, 3, and 4 subtypes of IgG and then you have other antibodies that people can produce

to gluten as well like IgA and IgM and IgE. So for me, when it comes to gluten testing, I look genetically.

And the reason why I look genetically, there are different genetic markers. And so gluten sensitivity in the past—the terminology has really changed over the last 20 years. In the past, doctors would say, 'oh yeah, celiac disease, okay'. And that was the delineation. Celiac disease and gluten sensitivity, the terms were used synonymously even though they're not synonymous.

In essence, everyone with celiac disease is gluten sensitive but not everybody with gluten sensitivity will develop celiac disease. The gluten sensitivity at its core really is a genetic issue. Meaning, if you have the genetic receptors that view gluten as an enemy or a foreign invader, then your body, that's its natural response to it. And that's not a disease or an illness. It becomes a disease or an illness if you continue to eat it. Meaning, if you have the genetic markers for gluten and you ignore them, and you continue to eat gluten, then the response to that gluten is that your body is going to produce inflammation through several different mechanisms.

So there's an innate mechanism. There's a humoral mechanism under innate. In humoral, there are multitudes of other mechanisms that occur that create inflammation. And there's not one good test that identifies all of those different mechanisms, if that makes sense. That's why I don't use IgG as a primary to look for gluten sensitivity.

Now, I do use antibody testing to look at food allergies because we don't have genetic testing that we can run for every food but we do have genetic testing that we can look at gluten as a whole. So I like to look at HLA-DQA1 and B1 genetic testing to help identify gluten sensitivity. And if your listeners want to look at doing that, you can get with a doctor to do it. But we also offer it as a service if your doctor is unwilling to run it. Because that's the problem we found, is that many doctors don't want to run it. Your listeners can go to glutenfreesociety.org and we offer genetic testing for gluten sensitivity without a doctor's note. And it's just as easy as swabbing your cheeks.

So that's how I would look for gluten sensitivity. Now, in terms of other food allergens, those other types of food allergens, yes, it's the best way that we have at least, to date, that can pick up on whether or not a person is going to react to a food consistently and whether or not how we need to change their diet.

Dr. Thomas: Yeah. So I'm wondering, so take a person who doesn't have the genetic risk factor for gluten sensitivity but they eat the standard American diet with all the glyphosate that's in the food because it's not organic. And

they've got so much inflammation in the gut that I think the immune system might interact with those food proteins regardless of your genetic makeup. What do you think of that?

Dr. Osborne: Yeah, I mean, that's a possibility. So the standard American diet isn't healthy and there's three rules of nutrition that you have to abide by or at least you have to recognize are important enough that if you don't abide by them, you'll pay a price, right? So I don't like to tell people what to do, I just like to give people the options and educate them so they can make an intelligent decision. And the difference between ignorance and stupidity is an education.

So, rule number one, you cannot get healthy eating food that's not healthy. So if you're following a standard American diet, you fail rule number one immediately. Rule number two, don't eat what you're allergic to and that's why I do testing. Rule number three is honor your body. So if your body rejects the food or tells you that this food is a problem by giving you a symptom every time you eat that food, honor what your body is trying to tell you. So many times I've heard people say, they're at a party and they're like I'm going to pay for this tomorrow and they're eating it anyway. And it's like, what's wrong with you? You're going to pay for it tomorrow?

Get a brain in your head, right? Make an intelligent decision. Honor yourself. Don't beat yourself up with food and then—like I said earlier—socially justify it so that other people feel like they have to do it too. This world is so crazy that way.

But those three rules, if you understand them, then you at least have a conversation with yourself before a meal. Like I have this internal conversation with myself, is this healthy? Answer, flowchart, right answer A equals Yes, then eat, right? B equals No - put down, right? So very, very simple. Is this food healthy but questionable because of where it comes from? So like, is there a cross-contamination issue? Did they potentially add corn oil to it or soy oil to it or some other kind of healthy food? Is it organic? Is it not organic?

These are kind of additional pieces of information that the average person unfortunately doesn't know. They're not sure. So this is where the education piece comes in. That's why summits like this are so important because people can come and learn and they can start really getting truly educated. Because, realize this—and you can vouch for this—medical school does not offer nutritional classes, not to any advanced degree.

So when you go to your medical doctor and you think, *Oh, this guy knows about nutrition.* It's kind of like he doesn't tell you he doesn't know about

nutrition or she doesn't tell you that she doesn't know about nutrition. You assume they know about nutrition. So when they tell you that nutrition is not important, you believe that they have the educational background to deliver that information to you in a honest format. When in actuality, they don't know enough about nutrition to answer the question.

So you've got to find time to educate yourself. And whether that means finding a functional medicine doctor or signing up for people's blogs and just getting more information and then finding somebody who can do unique testing. Because, really, where it's at is unique testing. We're entering a realm of personalized medicine, a biochemical individuality. One person can be allergic to blueberries. One person can be allergic to broccoli. Somebody can have a gluten sensitivity.

Somebody could say I'm not gluten sensitive but they're eating bread anyway and they don't have a problem with gluten but they have a problem with the mold in the bread. Because bread and the way it's stored oftentimes there's mold and mycotoxins in it. Or they have a problem with other proteins in the bread that aren't gluten. There's a family of proteins in wheat called amylase-trypsin inhibitors, they cause leaky gut that people don't even know exist.

So it's an area where you may not have a problem per se with gluten but you may have a problem with some of the other aspects or elements of how that food is manufactured, prepared, farmed, how it's chemically sprayed, right. And those can create problems just as much. So really, at the end of the day, it's your responsibility as a listening audience to take ownership of your own health, get educated about what it is that you're putting in your body and not blindly trust food manufacturers who don't have your best health interest at heart. They're out to make a profit by selling you a product that you'll be a repeat customer and buy it repetitively.

And the way that they do that is they create peptides in these products that create addiction. Okay, so food addiction is a whole another arena we could cover for 10 more hours. But they create products that have added sugar so that you like the way that it tastes; where they add chemically washed salt, so that you like the way that it tastes; where they add hydrogenated oil so that you like the texture of it better; and they could care less about your health. So don't give your power up to these companies. Take ownership of your own health. Take ownership of what you put in your body. Read the label and support people who are doing it right. Support your local farmers. Support real food, right?

And step up to the plate and recognize that what you put in is a reflection of what you get out. I mean, that is the ultimate lesson that I could really try to

emphasize with your audience is that food is the ultimate drug. It's the ultimate drug because we don't recognize it as a drug but it has every property of a drug. And if we don't honor what it can do for us or what it can do to us in a negative way, then we'll be lost.

Dr. Thomas: Yeah. I think if I'm a viewer, I'm going, "Ugh, I've got to change everything. This is too much, and I don't even know where to go find this functional doctor he's talking about." So you also mentioned, just in passing, fasting. I'm wondering if you might give our viewers a practical, let's say they don't have an extra penny to their name, they don't have the energy, they're fighting with alcoholism or opioid addiction or you name it, right. They're like they haven't felt food for so long, they don't even know how to begin.

Perhaps, tell them what they should maybe think about eating this next week or do a fast and then eat or do the vitamin C thing, fast, and then eat. I mean, what would be kind of the shortcut. I know there's no shortcuts to something as big as addiction, folks. You got to change everything. But it does start with food and the diet. And I'm just wondering if you might give our viewers just a one-week sample of try this.

Dr. Osborne: Yeah. So the journey of a thousand miles starts with a first step. And the very first thing that you can do that will cost you absolutely zero money is eat real food. So if it comes out of a garden, okay, meat, vegetables, fruit, very simple. Very simply put, if it comes out of a box or package, read the label. If it's got anything in it you can't pronounce without a biochemical degree, don't eat it. And just keep it simple.

In terms of fasting, fasting is free. I like to start people out—now, if you're a diabetic, a type 1 diabetic particularly, do this under medical supervision. And if you're a type 2 diabetic, using insulin injections, also do this under medical supervision.

Dr. Thomas: You may not need your insulin.

Dr. Osborne: Yeah. Because what happens when you fast is your blood sugar gets under check really quickly. And even if you're diabetic and you're on metformin or Glucophage or one of these insulin-sensitizing medications, you really want to—it's best to do it under supervision with your existing doctor. If they don't know what you're talking about and they can't give you supervision, again, you got to find somebody who can supervise it.

But fasting is very simple. And we're not talking about 3- or 5-day fast, 3 or 5 days with no food. We're talking about a really simple one, 16-8. So 16-8 fast means that you take the 16-hour represents that you're not eating for a 16-

hour timeframe. Now, that includes your sleep. So if you go to sleep every night and you sleep eight hours, just think of it like this, four hours before you go to bed don't eat and four hours after you wake up don't eat. And then the eight hours that you sleep, that equals 16 hours, right?

So then you have this eight-hour window during the course of your day where you can eat your regular food, eat your regular meals. You don't have to eat less…

Dr. Thomas: Maybe not regular though, maybe you're going to eat different.

Dr. Osborne: Well, you're going to eat different. You need real food. Because that's what I said first, right?

Dr. Thomas: Yeah.

Dr. Osborne: But you don't necessarily eat less. You eat just as much food but you just restrict the eating aspect of your day to an eight-hour window. And what that does is it gives your GI tract, okay, it gives it a break. It gives it rest.

If I sent you and I said, I want you to work a 40-hour week. And at the end of 40-hour workweek, I said, 'you know what, I want you to pull another two-hour shifts—or not two-hour shifts—I want you pull another eight-hour shift at the end of your day'. And now you're working a 16-hour day and then you get to the end of this 16-hour day and I come at you and say, "Can you work four more hours?" This is what people do to their guts.

They never quit putting stuff in, and their guts never get a vacation. They never get rest. And especially if you're putting in the wrong food, what happens is now your gut's already tired. And then you're putting in things that are harder to digest. And then you're putting in things that cause inflammation.

And so you stay perpetually ill. So the 16-8-hour fast just gives your gut that 16-hour time of rest. If you tolerate a 16-8 fast really well—again, it's free, it only cost you your knowledge, right—then try a 20-hour, 4-hour fast. So a 20-4 is where you restrict your eating to a four-hour timeframe during the course of the day. And then if you do really well with that, then you can start getting into a 24-hour fast.

I don't really recommend longer than that without some supervision if you're struggling with chronic illness, especially when you start getting into the three days to five-day fast. There are some very specific things that you need to know to be able to do that right without hurting yourself. So start with just a

very simple 16-8 or the 20-4 rule and then make that attempt. A lot of people feel a lot better when they're not eating. And they notice that immediately. It's something that you might notice about how you feel better immediately when you go for prolonged periods of time. You'll notice that during that 16-hour timeframe, I felt really good. But it was after I ate that I started feeling bad. And that really helps you start identifying how food really truly can affect your health.

Dr. Thomas: Yeah. Thank you for that. Some people call that time-restricted feeding or intermittent fasting. I've tried it. I've been actually living that way. I've dropped 20-30 pounds by doing it. I've kept it off easily. I can eat more than I used to but I am doing what you're doing with just eating real food. It's key, folks. It is absolutely essential to your wellbeing. And part of the reason I think we stay addicted, whatever it is we're addicted to, is we just feel like crap.

Sorry about my modern language there. But when you feel horrible, you just reach for that cookie, that bread, that pasta, that ice cream, all the stuff your mom gave you and I gave my kids. I'm ashamed of it. I didn't know better. But, hey, you guys now know better. So eat real food. Try this intermittent fasting or time-restricted feeding that Dr. Osborne was sharing with us because it works. You'll be shocked at how much better you feel. Yeah.

So as we get close to wrapping up, I just want to give you an opportunity to share with our audience some of the things that you're really excited about, either clinically or just that you think are pertinent to the addiction audience.

Dr. Osborne: Well, I'm excited about a lot of things in the functional medicine realm. I think this is the biggest revolution in medicine since antibiotics and that excites me every day. I get up every day, go to the clinic, and I just love what I do.

But what I would encourage your audience to do is keep attending events like this where they can get more and more and more information and feed your brain, right, because you ultimately are your doctor. You are the doctor for you. You, listening, you are your own doctor. Doctor yourself. It doesn't mean you can't go seek expert opinion or advise, it just means that you don't want to give your power up to somebody else. What I'm excited about is we have—I have a new program that's coming out here in August. And it's called the Autoimmune Matrix. And what it is, is it's a platform that helps people navigate how to overcome autoimmune disease naturally.

And so I'm very excited about that. It's many, many, many hours of tutorials that people can get online and watch and really navigate. It's going to have

wonderful recipes that people can follow along with. So we're excited about that. That's the next thing that we're creating for people to just have as a resource and as a tool.

And of course, I'm excited about *No Grain, No Pain*. We've now published in five different languages and—

Dr. Thomas: Congratulations.

Dr. Osborne: Yeah. So we've sold about 50,000 copies and I'm very excited because that means those people that have copies in their hands are getting the information that they can potentially transform their life. So if you don't have a copy and you're listening and you're struggling with an autoimmune disease or even struggling with an addiction, pick yourself up a copy because there's a lot of great, wonderful nutritional information there.

Dr. Thomas: Yeah. I think we forget that way back when we were hunter-gatherers, we weren't eating grains, right? We were digging up roots maybe and picking fruit off of an occasional tree and hunting for wildlife.

Dr. Osborne: And very few people realize this, 1943, the United States government banned the sale of grains because it was causing beriberi and pellagra to the tune of 8,000 deaths a year. And what happened is the cereal manufacturers started fortifying their cereals. And that's why they're legal. They're illegal if you don't fortify them. And the reason they're illegal if you don't fortify them is because they cause deaths. And people don't realize that because the cereal manufacturers turn around and said, hey, now eat more of us because we're even better for you because we're fortified instead of saying, hey, don't eat us, we'll kill you with beriberi and pellagra. By the way, those are vitamin deficiency diseases, right?

And the people don't realize that. We think that cereals are such an important part of our historical culture. When in reality, cereal is a brand-new entity. It was created in 1895 when Ford created a shredded wheat machine. And that's the first of processed cereal that we have in the history of mankind. Now yeah, we had grain before that. But grain was never eaten as a predominant staple food. And cultures weren't eating 70%, 80% of their diet massed from simple seeds, which is what grain is. Grain is a grass.

So people have this perception of culture and how we evolved. And they don't realize that that was not really a part of it. Grain although could've been a part of some people's diets in smaller extents, it was never 70% of the total daily caloric intake. And that's one of the reasons why we see so much gluten sensitivity today. It's not that it's more prevalent today than it was 100 years

ago. It's that people are eating so much more of it. And we're seeing more of it because we're seeing that it's dose responsive. The more you eat, the sicker you get, the sicker you get over time, right, the more that shows up as autoimmune disease. So we're seeing that, we're seeing that people are becoming more and more sick and that's one of the reasons why, certainly—so anyway, I don't know where we got off in that tangent, but…

Dr. Thomas: It's a good one. People, you need to know that the grains that we're eating in our packaged food are basically junk. I mean, it's not nutritious. You've got to get back to real food like Dr. Osborne was telling us.

All right, I'll give you the last opportunity to just parting words for our audience.

Dr. Osborne: Love yourself. Go look at yourself in the mirror and tell yourself you did a good job. And really, truly, I mean that, love yourself because that's where it starts. It begins with self-love. It begins with self-respect. And once you have that dialed in, it's very, very easy to make better decisions when you're making them from the premise that this is the only you you have.

And when you're making decisions about the only you you have, each decision becomes more important. And so start from that premise of love. And I know maybe it sounds too foo-foo and too flowery. But it really is true, love is infinite and it can heal all wounds. And it doesn't mean just because you love, everything is magically healed. But again, the premise is love yourself first because when you love yourself, you make better decisions for yourself. And again, that's where the journey begins. It begins with better decisions.

Dr. Thomas: Fantastic. Thank you, Dr. Osborne. This has been enlightening, informative. And, folks, you probably are going to have to rewind and watch this one again. I appreciate your time today.

Dr. Osborne: You're welcome. It is a pleasure.

Dr. Thomas: Take care.