

The Human Upgrade: Episode 1140

[00:00:00] **Dave:** You are listening to The Human Upgrade with Dave Asprey. Today we're going to talk about big foods fight to keep gluten in your diet even if you don't want it, and why they're doing it, why they're actually bad people. We're not going to actually talk about why they're bad people. Maybe they're just misguided people with a profit motive.

[00:00:20] Whatever the deal is, we'll talk about what gluten does for you and doesn't do for you, despite the fact that gluten is a plant-based protein. And our guest today is Dr. Peter Osborne. He's known as the gluten-free warrior, and he speaks all over the world about nutritional health.

[00:00:38] He's a doctor of chiropractic, doctor of pastoral science, and board-certified with the American Clinical Board of Nutrition for whatever that's worth. Dr. Osborne, seriously? The American Clinical Board of Nutrition? Aren't these the guys telling us to eat a bunch of crap?

[00:00:56] **Peter:** No, that's the American Dietetic Association,

[00:00:59] **Dave:** Oh no, those guys are like the cancer-causing people. No, I thought the nutrition guys weren't that good either. The dieticians, they're out to lunch. They like McDonald's and gel in hospitals screw those guys. Nutritionists, aren't they telling us to eat soybeans and whole food and plant-based nonsense now?

[00:01:13] **Peter:** Pretty much. And their biggest sponsors are Oreo cookies, and Nestle, and some of the junk food that gets put out there and gets pushed as healthy, or even if it's not as healthy, as not dangerous. So sometimes it's the lie that's not spoken. It's the bigger liar or the bigger threat.

[00:01:33] **Dave:** There are a lot of people listening who believe that if you don't have celiac disease, gluten's fine for you. And I was one of those many, many years ago before I determined that it was a major contributor to a lot of the problems I was having. It turns out I had a major toxic mold exposure, actually multiple ones.

[00:01:50] And I developed gluten sensitivity and dairy sensitivity. And when I eat gluten, I just do not do well cognitively. I don't get wrecked if I eat European gluten. In the US, I get wrecked immediately, and that's probably glyphosate plus gluten. But is it true that if you feel okay when you eat gluten, it's just not harming you because you're not sensitive?

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[00:02:13] **Peter:** Not necessarily. So there's different nuance to this question because there's gluten sensitivity, which is not a disease, but a genetic predisposition. And then there's celiac disease, which is the active autoimmune disease that affects the small intestine when you eat enough gluten over enough time and create an autoimmune reaction.

[00:02:30] But there's a whole huge body of literature on something called non-celiac gluten sensitivity, which gluten can cause neuropathy, can cause nerve damage, migraine headaches, fatty liver disease. Gluten can cause myalgias muscle pain. It can mimic rheumatoid arthritis, and scleroderma, and dermatitis, and ankylosing spondylitis.

[00:02:47] So you may not have any of those things. There's a protein when you digest gluten that's broken down called exorphin. Some people call it gluteomorphin, and it looks like morphine. It attaches to morphine receptors. And so what happens with some people is when they eat gluten, because it behaves like morphine, it masks its own toxicity.

[00:03:09] Very sneaky thing. And so you could have this affect and really be okay until the damage is so great that the morphine effect wears off and no longer works very well for you. And then symptoms start to come in. This is why a lot of people eat gluten for 20 years, and then all of a sudden they're like, well, why now?

[00:03:29] Why did it happen now? Well, because your body was so inflamed by it for so many years that it could no longer put the fire out, and so it decided to let you know in a much more aggressive way by expressing symptoms.

[00:03:40] **Dave:** That makes a lot of sense. In my case, I was one of those people with gluteomorphin or exomorphin problem with gluten. So when I was in my 20s, desperate to lose a hundred pounds that I've lost, and I'm trying what we called the Atkins diet back then, which is an early version of the keto diet, but it allowed artificial sweeteners, and bad oils, and soy proteins.

[00:04:03] It's not a carb. You can eat it. It doesn't work very well, but you can lose half your weight on that. And I also had learned about cheat meals. And you'll see like guys like Tim Ferris, who's been on the show a couple of times in 4-Hour Body talk about, oh, just have a cheat meal once a week.

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[00:04:17] And I still see people doing this, so I'm like, I'm going to do my cheat meal. It was Friday nights. I go to a place, a steakhouse in Silicon Valley that was an institution there for a very long time. And I would get this grass-fed rib eye, lots of fat gorgonzola butter, but I'd eat a loaf of French bread, and then I'd be fine the next day.

[00:04:40] I'm like, see. I'm bulletproof. Not really. Didn't have the company yet, but you get the vibe. And then on Monday, I'd have the worst brain fog, and I would crave bread. I'd just have to have bread just as one piece, one piece. And I'd have three or four days of cravings, and I just stand up to them usually.

[00:04:56] And I finally noticed after a year of this, you know what, it's like an addiction. I get it, and then I want it all the time. But if I just have some other kind of carb, I don't get the addiction. And it was a couple of years later that I learned that gluteomorphin, so the cravings for bread, the ones you just can't let go of. Those are probably a little bit more morphine oriented than most people admit. Right?

[00:05:22] **Peter:** Yeah, I would say definitely morphine dare does the same thing. There's casomorphin, which is a byproduct of casein breakdown, but you have that. And then what a lot of people also have that's a little bit different is they have a candida or other type of yeast overgrowth. And those microorganisms can hijack your vagus nerve and really send a message through it to tell your brain, give us some food. Eat sugar, eat carbs.

[00:05:50] **Dave:** I had that too. And it's funny both sensitivity to dairy, and gluten, and candida are linked to having toxic mold in your home. It's not the only cause by a long shot. But I had at the time when I was doing all this, I lived in a home that had Stachybotrys, which is one of the really bad molds.

[00:06:10] And it's amazing, since then, I've had mold in so many houses. Once you know it, you know how it makes you feel. You know what it does to your immune system. You start becoming aware of it. I did a documentary, moldymovie.com. It's a free thing, but I flew all over the country. Guys, this is real.

[00:06:28] And I interviewed doctors. I interviewed people who'd been affected like me, just normal people doing their life. And all of a sudden, just like someone punches you in the face

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and even you develop food allergies you didn't have. How much dairy and gluten allergy do you think is tied to other environmental things that mimic it like mold?

[00:06:47] **Peter:** I think a lot of things. I think where a lot of people could probably get away with eating some gluten periodically, even if they were gluten sensitive, genetic predisposition, they react because they're so unhealthy in so many other ways and so many other choices. They don't exercise well. They don't get sunshine. They don't go to bed on time. They don't have a good diet overall. They just have a bad plan for good health. And so they are less resilient to their ability to take a hit or to take a punch.

[00:07:16] Gluten's going to give you a punch. My opinion is gluten's going to give you a punch really, no matter who you are, even if you're not really genetically predisposed, not because gluten is doing the punching, but because there are so many other elements of grain, as you've mentioned, mycotoxins. It's a very heavy mycotoxin-laden food, the different types of toxins that mold produces.

[00:07:36] And so you get exposure to mycotoxins through heavy grain consumption. So if you are mold sensitive or if you also have mold in your home, you're getting it from your environment. You're getting it from what you're eating. Then you're feeding the wrong kinds of microorganisms in your GI tract that are producing chemicals that drill microscopic holes in your gut lining, then you start becoming allergic to everything.

[00:07:57] I lost a house to mold. So when we were in mold and my wife was starting to have major breakdown, because my wife's very healthy, and she's CrossFitter, and she eats well. She eats like we do. She eats fantastically well, and she cares about her health.

[00:08:12] And so all of a sudden she can't get off the couch. She can't finish a sentence. She's starting to have food allergic reactions. So I run some food allergy tests on her. She's allergic to everything, the whole test, everything. So it was at that point we started to get this waft of must odor.

[00:08:32] It was coming through one of the wall cavities, and that's what turned us on obviously to looking at mold or looking for mold as a potential reason. And we had in one of our wall cavities, 250 spores per cubic meter of airspace as we pumped it out. And it was a mixture of penicillium, aspergillus, Stachybotrys. It was just--

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[00:09:00] **Dave:** Stachy is one of the two most dangerous. That stuff will really mess you up. And I've had all three of those in my homes as well. And yeah, they make you actually feel like you're going crazy. You get strong anxiety, you get nightmares, you get nosebleeds, and you get mast cell activation syndrome, which is basically your immune system reacting to everything, including all the food.

[00:09:16] It's the root cause of chronic fatigue syndrome and fibromyalgia. And that mast cell activation syndrome is also the same thing that happens in Long COVID, which you could never say out loud because--

[00:09:32] **Peter:** Yeah, I've seen about 100 cases of that in the past year, and every one of them was people that went home to try to recover from being sick, and they had a moldy house and they couldn't recover. So the virus, if you will, sent them over the edge, and the mold kept them over the edge.

[00:09:53] **Dave:** Yeah. And so the interactions between mold and environmental toxins, your immune system and gluten, and to a certain extent, casein from milk, it's a real thing. And a lot of functional medicine doctors know this. I feel like some longevity doctors know this, but they're like the A4M longevity doctors, not the, I'm a longevity doctor, but all you can do is exercise and take statins kind of longevity doctor.

[00:10:21] I find some very Western guys are trying to infiltrate functional medicine and longevity and say they're doing longevity when they're actually bad diets. So I'm doing my best to identify the people making us live longer versus the people who think we can't, so you should lift, because that's nonsense.

[00:10:38] **Peter:** Yeah.

[00:10:38] **Dave:** Now, when you're talking to those audiences in the functional medicine and longevity worlds, what percentage of those practitioners do you think are really, truly a of the role toxic mold is playing in their patients?

[00:10:55] **Peter:** Oh, less than 10%, easy.

[00:10:58] **Dave:** Less than 10.

[00:10:58] **Peter:** Yeah.

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[00:10:58] **Dave:** I try to find the good ones. Aunt Chippy has been on the show. Jill Carnahan has been on the show. Really people who understand environmental toxins and mold. Had a couple guys talking about mold testing, and it's an important part of biohacking, changing the environment around you and inside you to have control of your own biology. Environment around you is full of mold, so now you're allergic to gluten more than you already were because it wasn't good for you in the first place, but you could probably handle it. And those interactions are the ones where I never trust Big Pharma or big food to know or care about those.

[00:11:30] We have some other problems going on with gluten in the US, and I think you're uniquely suited to talk about them because you started the gluten-free society. Tell me a little bit about what this society is, what it does, why you started it, and then I want to go into some of the nefarious things that big food is doing.

[00:11:48] **Peter:** I started originally because in my practice I was observing people initially would go gluten free. We test them, they were gluten sensitive. We take them gluten-free. And this was like 20 years ago, so this was before every grocery store had a gluten-free aisle. But there was this transition period when the grocery stores were starting to come online with processed gluten-free garbage food.

[00:12:11] And so people would just go and they would buy the corn bread, or the rice pasta, or whatever it was. Usually corn and rice. And what I would see clinically was these people would start to regress. They would go gluten-free. Initially, there would be this analysis paralysis because they didn't know what to eat.

[00:12:27] So largely, they were eating meats, vegetables, and nuts, and some fruits. And so they were feeling tremendously better. And then they would find the gluten-free substitute aisles, and then they would start digressing. And so I started looking at corn and rice a little bit more meticulously because the FDA would tell you that gluten is only found in wheat, barley, and rye, and that oats, and corn, and rice were all okay.

[00:12:47] And then I started looking at molecular biology in terms of plants. And so there's another doctor by the same last name, Dr. Osborne, who's known as the father of plant protein

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chemistry. And he actually is the doctor that isolated glutens and defined them as the family of proteins found in the seeds of grass that are soluble in alcohol.

[00:13:08] **Dave:** Mm-hmm.

[00:13:09] **Peter:** And so I started looking at corn. I'm like, well, corn has a gluten protein called zein.

[00:13:15] **Dave:** Right.

[00:13:16] **Peter:** And it fits that category. And rice has a gluten protein in it called Orzenin, and oatmeal has a gluten protein in it called avenin. So I'm like, why are we saying these ones are safe? Where's the research that actually shows that they're safe?

[00:13:27] And so I start coming through that literature, and it's like, it's not at all definitive. And then I got ahold of some papers from researchers down in South America who were really studying corn because their concern was that people with celiac disease down there where corn is a major staple wouldn't get better.

[00:13:46] And if you looked at the literature on two and five-year studies of people on traditional gluten-free diets, which traditional I just refer to as wheat, barley, and rye, true gluten-free diet is a grain-free diet. And these people, 92% of them failed to have remission or a healing of the villous atrophy.

[00:14:04] So if you look at celiacs going two, five years out, still not healing, they're symptomatically better because they've reduced quantitatively the amount of gluten that they're eating. Because if you look at how much gluten per protein, if we look at wheat, 69% of the protein in wheat is gluten. If we look at rice, 5% of the protein in rice is gluten.

[00:14:26] **Dave:** There's no gluten in rice. How does that work?

[00:14:29] **Peter:** It's a type of gluten. Again, when we say gluten, we're--

[00:14:33] **Dave:** It's a glutenin, is what you're saying.

[00:14:36] **Peter:** No. A glutenin is a specific subfraction of the family of gluten protein.

[00:14:41] **Dave:** Okay. So it's in the broad family of gluten. And do all the broad families of gluten do the same thing?

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[00:14:47] **Peter:** In my clinical experience, absolutely yes. When you look at the medical literature on-- okay, if we take a celiac for example and we do IgE, IgA, IgG, IgM testing to see what they're reacting to, generally they're only testing gluten, which is actually technically gliadin, which gliadin is the name of the gluten found in wheat.

[00:15:09] So when somebody does a iliac test, technically, they're only measuring for the gluten in wheat. They're not measuring for the gluten in rye, they're not measuring for the gluten in barley, because there's [Inaudible] and barley. And so you have a lack of accurate testing that gives a false interpretation of what a person's actually reactive to.

[00:15:30] And everybody makes the assumption that it's gliadin, which is found in wheat. But because barley and rye have proteins that are very, very similar to gliadin, they fall in the same category of inflammatory for celiacs. It's the generic message to say, go wheat, barley, and rye-free. And then you have the food industry that makes all this gluten-free garbage food.

[00:15:49] They're funding money into these celiac research facilities. I found this out one year. I had a patient that was at University of Chicago, got a diagnosis, and she got a gift basket that was full of [Inaudible] and Schar bread. No offense to those companies. I don't care one way or the other. They're out there trying to do what they're trying to do.

[00:16:08] But to me, when you have a university that's supposed to be the expert in the diagnosis and they're not even at least broaching the conversation of corn and rice as potential to cause inflammation, when there's at least a dozen studies that show that celiacs react to corn just as aggressively as they do to wheat, and they're totally ignoring that, and there are people funding their research facilities who are selling corn-based products, now my we're getting into the realm of poor ethics and bad form.

[00:16:39] Because these people with celiac disease have a four-fold increased risk of death, meaning there's a 400% chance they're going to have an early death when they're still eating gluten, and I would include rice gluten in that category, even though, again, rice by concentration is the lowest. Corn is 55% gluten protein called zein of the total protein.

[00:17:05] **Dave:** Of the protein, it's 50. The corn isn't 55% protein.

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[00:17:08] **Peter:** No, no, no, no, no, no. It's of the protein in the corn, 55% of that protein is the gluten, zein. And likewise with wheat, it's 69% of the protein in wheat is gliadin. And again, with rice, it's 5%, etc. So you have different types of gluten that nobody really differentiates, and they just assume they're safe without adequate or ample study. But when you do look at the studies that have been done, many of those show corn and gluten causes inflammation in celiacs. We see oats. We know oats can cause inflammation in celiacs. We know that rice--

[00:17:46] **Dave:** That's a joke.

[00:17:47] **Peter:** We know that rice causes it.

[00:17:49] **Dave:** Brown or white? There must be a difference. Brown rice has more?

[00:17:53] **Peter:** About the same. About the same. Yeah. There's actually a condition called food protein induced enterocolitis, which rice is the most common food that causes that condition. And yet, most GI doctors will tell you that rice is hyperallergenic and it's the one that you should choose of all the grains. If you are celiac for that reason, you get it.

[00:18:16] **Dave:** Quantitatively, it is the one you should choose. If you're going to eat a grain, it's 5% versus 55%. So you're going to get a much smaller dose. Does the variety of rice or cooking method matter?

[00:18:28] **Peter:** Nobody's really looked at that. Nobody's really studied that and said, hey, does cooking this long reduce or denature the protein and--

[00:18:36] **Dave:** It doesn't in bread. It doesn't mean it wouldn't in rice. And my gut says that white should be a little bit lower than brown. And I would bet you money there isn't a study that I'm aware of that short grain rice has less gluten than long grain rice, both from the way it feels in the mouth and just from the way it behaves in cooking.

[00:18:56] I'm a fan of white rice especially if you cook it with oil, when you steam it, it makes a resistant starch that's generally good for the gut. And I found that most people tolerate it. So now you got me asking lectins. Dr. Gundry's a friend. He's been on the show. Was just on Instagram with him. He's like, all lectins are bad.

[00:19:20] I'm like, well, most people don't react to cucumbers. Almost everyone reacts to bell peppers or gluten. So I'm wondering, we haven't differentiated the severity of the problem for

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each of these gluten-type compounds or gliadin-type compounds. They're not actually gliadin, but they're in the gluten family, we'll say. Has anyone done that work, just say, how toxic is rice gluten versus corn gluten versus wheat gluten even based on genetics? Is that just no one knows?

[00:19:54] **Peter:** Who knows. Nobody's dove that deep into the nuance of it. Clinically, what I can tell you is anecdote, story after story after story. With rice, one time I had a little girl as an example. Her mom took her gluten-free traditionally, wheat, barley, rye-free. But she kept feeding her this rice-based protein mix.

[00:20:15] And it was mostly rice. There wasn't a whole lot of other sugar and junk in it, and it was organic. But the little girl kept having these mysterious fevers. She'd spike like 104. She'd be in the ER every other weekend. And I'm like, quit giving her the rice. The day she quit giving her the rice was the day the fevers went away. And I've got hundreds of stories like that where rice was--

[00:20:40] **Dave:** Same thing with oats?

[00:20:41] **Peter:** Same thing with oats, same thing with corn. Corn probably the worst.

[00:20:46] **Dave:** Yeah. Corn ruins me. I just don't touch corn. It's just not worth it.

[00:20:50] **Peter:** Again, going back to one-- because you asked the question about has anyone delineated. One study came out in 2012 on corn gluten, and it was a dual study. They were looking at mechanism of inflammation, but they were also looking at the genetics. And so they were looking at the genetics of celiac, and what they found is that people with celiac genes, actually the majority in the study that was done, reacted more to corn gluten than they did to wheat gluten.

[00:21:17] And so in that particular small scale of a study where they were looking at those different parameters, you could actually make an argument that corn gluten is actually worse. But nobody's done it with all the types of gluten.

[00:21:30] **Dave:** Wow. Geez, this is tough in the US. They're both soaked in glyphosate. But if I'm going to eat something that's going to make me feel like crap, man, give me a good old crusty sourdough because it tastes better if I'm going to feel like crap the next day. And popcorn, it tastes good. That stuff just ruins us.

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[00:21:47] Yeah, I'd rather have sourdough than cornbread, but I don't eat either one. But I got to ask you this. In the US, we have hard winter wheat or hard red wheat, which is higher in gluten, and apparently it's a more aggressive form of gluten from what I understand. There's some nuances that I haven't read into.

[00:22:05] You go to Europe, you get soft red wheat, and it's not soaked in glyphosate the way they do it here. So I can go over there, and I'm proud to say that on a recent trip to Turkey and UAE, I might've eaten a couple of kilograms of baklava that contained gluten, and I didn't have any side effects from it.

[00:22:24] I didn't even gain weight from it. And it was delicious. I'm sure my blood sugar went up, and I advanced glycated my tissues a little bit, but now there's drugs for that, and it was well worth it, and I would do it again, just wouldn't do it regularly. So why did I not just get wrecked? Why didn't I get the morphine effect from that that I would get if I did that in the US?

[00:22:46] **Peter:** So much nuanced beyond gluten as the conversation. So one, we could argue, Dave, maybe you're not gluten sensitive, but that maybe you are actually reacting to some of the other things that are in certain types of grains. So what you mentioned now about the winter wheat, soft, some of them have more gluten in them. Part of it is what kind of fertilizer they use.

[00:23:09] There's research that shows the more nitrogen fertilizer that they use, synthetic Haber-Bosch produced nitrogen fertilizer that you get a higher gluten content in that grain than you do from poop as a fertilizer for example. A less water availability to the crop can equal more gluten to the crop.

[00:23:29] Then there's the research that is prior 1950. Because when we look at glyphosate, a lot of people just strictly jump right to glyphosate and say it's just glyphosate.

[00:23:38] **Dave:** No, it's not.

[00:23:39] **Peter:** Okay. It's not, because in 1943, during World War II, there was a doctor by the name of William Dickey who had a wing of celiac children that he was treating.

[00:23:51] And there was a grain ration because of the war. At this time, celiac disease had no known cause. So you have to understand celiac disease, you would vomit and diarrhea until you

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were dead, unless they figured it out. And he figured out that when grain was rationed, his patients recovered.

[00:24:11] And when the ration ended, his patients got sick again. And he actually was one of the first to make that observation. And there were other researchers in Germany that were making a different observation. They were making an observation with schizophrenia.

[00:24:25] Dave: Oh, I've heard about this one.

[00:24:26] Peter: We hear about the term. So there's bread madness, which is classically ergo, which is the type of mold that can contaminate bread. But that's not what I'm talking about. We're talking about schizoaffective disorder from exorphins. So this is going back to the gluteomorphin protein. And what they noticed during World War II when grain was rationed was that there was a dramatic decline in schizophrenia and schizoaffective disorder.

[00:24:46] And when the war ended, the numbers went right back up. And so they also published that data in the 1940s. We didn't get glyphosate really heavily on any of our crops until the 1990s to any great extent. So how do you explain that 50-year gap without glyphosate and the effects that we were seeing on human health? And how do you explain too that the fact that we look historically at the history of cereal, cereal was invented in 1895 by Post.

[00:25:15] He made grape nuts. And then Kellogg came along and he created cornflakes in his sanitarium where you had patients would come all over the world. And he was a Seventh Day Adventist, a staunch, vegan, vegetarian type guy.

[00:25:27] **Dave:** He was a religious radical who helped infiltrate our food system to put their religious beliefs, to force us to eat what they believe is righteous for perverted reasons, right?

[00:25:39] **Peter:** Yeah. For the most part, yes.

[00:25:42] **Dave:** I'm not saying current Seventh Day Adventists are perverts. I'm saying Kellogg was and his ilk in Post.

[00:25:47] **Peter:** Yeah. Good clarification. So yeah, because I've got a lot of really good friends who are Seventh Day Adventists.

[00:25:52] **Dave:** Yeah, no this is 120 years ago. A lot of religions were still killing people.

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[00:25:58] **Peter:** Yeah, yeah. So he brought up cornflakes, and then B. B. Crohn, who was a doctor in the early 1900s, it was about 10, 15 years after the advent of cereal started, that's why they named Crohn's Disease, and they named it after him because before that, there really wasn't this massive amount of inflammatory bowel disease that was occurring.

[00:26:20] So it was the cereal that was being processed. And then by 1943, you've got 40 years of processed cereal. The US government steps in and bans the sale of processed grain unless you add vitamin B1 and Vitamin B3, and other vitamins to it because it was responsible for about 9,000 malnutrition deaths per year from beriberi and pellagra.

[00:26:40] **Dave:** Oh wow.

[00:26:41] **Peter:** And that history has just been erased. The cereal industry tried to erase that because what they said, instead of saying, don't eat our cereal, it will kill you, they said, eat more of it now because it's fortified with vitamins and minerals. So you know how marketers do. They get ahold of something and they make it sound better than it's.

[00:27:00] If you go back in as a kid when you grew up and you remember the cereal commercials, what did they say? They didn't say eat cereal as your balanced breakfast. They said it's part of a balanced breakfast.

[00:27:12] It's because they couldn't say it's a balanced breakfast because it would malnourished you. So it was a play on words that they used. It was a very successful campaign along with Tony the Tiger, and Lucky Charms, and all the other cartoon caricatures that were aimed at targeting to your kids.

[00:27:27] And that's why people so vehemently hang on to grain. That's one of the big reasons why they so vehemently hang on the grain, because we've been indoctrinated in our social culture to believe that it's always been there when in fact, cereal wasn't really there before 1895. So if you look at quantitatively the calories in the US alone, 50% of the calories in the US diet is wheat.

[00:27:50] And we don't even account for corn and rice in that 50%. So when you look at the total caloric value of what people are eating today versus what they ate, 60, or 70, or 80 years ago, or even 100 years ago, it wasn't anywhere near it. And so I think part of why we see so

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much more gluten sensitivity and gluten reactions and grain reactions is because of quantity and also quality, but also quantity.

[00:28:14] **Dave:** Was eating sugar for their carbs before that? Is sugar better for you than wheat?

[00:28:26] **Peter:** No, probably not.

[00:28:27] **Dave:** Really? I think it is.

[00:28:29] **Peter:** You think processed sugar cane?

[00:28:32] **Dave:** If you're going to give me 1,000 calories of white flour from American wheat or 1,000 calories of raw cane sugar, dude, or even processed cane sugar, I'll take the sugar. My body can burn that perfectly clean. It doesn't have any immune stimulated molecules. It might cause some yeast to grow.

[00:28:52] If I have yeast going on in, my gut bacteria isn't healthy. I'm just going to get high blood sugar for a little while, but my metabolism works, and I'll clear it out within two hours. There's no residue left over. It doesn't trash your brain the way wheat does. We demonize sugar. I don't think sugar's particularly good for you, but sugar's 1,000 times better for you than most grains.

[00:29:11] **Peter:** I would say it varies person to person. I'd say one of the biggest side effects of sugar that I would get concerned by is the candida overgrowth because you have candida in your gut. But when you dump sugar like that, in a bolus, you're going to have a feeding frenzy of candida.

[00:29:24] And if we're going to tie that into gluten, candida produces a protein on its surface called a hyphal wall protein, HWP1. A hyphal wall protein molecularly looks like gluten. So if you feed a candida overgrowth, you're actually making proteins that mimic gluten, and your immune system is now engaging with those immunological proteins. So we could argue that eating sugar actually is bad as gluten because it creates that frenzy from candida.

[00:29:51] **Dave:** Mm. Okay. There aren't any drugs you can take that help you after you've been exposed to gluten and have that systemic inflammation because aspirin isn't going to do much for you. If I'm going to eat 1,000 calories of sugar, why don't just take a little nystatin and just be

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done with things? Nystatin kills you. I'm serious. We're talking about, do you want to be punched or kicked in the face? I'll take the punch, not the kick. And I think gluten's the kick and sugar's the punch.

[00:30:19] **Peter:** You could argue that. I would argue just don't eat the sugar or the gluten.

[00:30:22] **Dave:** Yeah, should duck if you can. And we both agree on that, but it's a tough one. And there's also times when your body wants carbs. Carbs can be anti-stress. And there's good evidence for that. I have a lot of people who've learned how to sleep with me. By the way, the website for that is sleepwithdave.com, which is the best URL of my entire career.

[00:30:48] That's how I teach people, like the sleep challenge. It's totally free guys, but you go there and I teach you stuff about sleep, and some people who have a blood sugar drop, you give them a tablespoon of raw honey before bed, which goes to liver glycogen, and then they sleep through, then a wake up three or four with racing thoughts because of adrenaline and cortisol.

[00:31:05] So if I need carbs, I'm not getting grains, I'm not getting potatoes because of lectins and oxalates. Well, geez, what's left? Are we just going to be huffing sugar, or huffing honey, or pineapple juice? What do you do?

[00:31:20] **Peter:** My opinion of that is if a person can't get through the night without waking up with anxiety because their blood sugar's dropping, then they have another underlying biochemical problem that needs to be assessed and addressed so that they can sleep through the night like a normal human being.

[00:31:36] And taking honey might give them an appeasement of those symptoms, but I would call that green medicine because what they're doing is they're taking something, have a biological or biochemical effect that they shouldn't have to take because they should be able to make it through a night.

[00:31:51] Their blood sugar should be stable enough that they have enough liver storage that their liver could kick on and pump out some glucose for them while they're sleeping, to be able to not get the adrenaline, and the noradrenaline, and the cortisol increase to wake them up. So why is that happening? Why is it that they can't metabolically activate that? So maybe they have some other problems going on.

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[00:32:10] **Dave:** Perimenopause is a good example of a problem where you know it's going to resolve, and other times people just need-- their metabolism is profoundly broken like mine was when I was 300 pounds, and it's going to get better, but it's going to get better if I sleep all night. So I don't mind doing--

[00:32:26] **Peter:** Yeah, the trade. Yeah, I agree.

[00:32:27] **Dave:** The work, right?

[00:32:29] **Peter:** Agreed. It's a trade off temporarily as long as the person's willing to engage in the truth of the pursuit of improving themselves to the best that they can, instead of calling it even and saying, you know what, this honey thing works pretty good. Let's just do that from now on.

[00:32:46] But they're ignoring everything else they shouldn't be ignoring. So again, I don't want to sound too stoic because I get your point, but at the same time, I know human nature, just like in the clinic. I know human nature, when you give them something that works, it makes them lazy. What is it? Today's luxuries are tomorrow's necessities, right?

[00:33:09] **Dave:** Mm-hmm.

[00:33:09] **Peter:** So when you create something that makes their life easier, then they are willing to pay a convenience tax at the cost of their longevity. And so as long as you're honest about that with them, or that person's being honest with themselves about that trade off, then I think everybody gets to make their own decision at the end of the day.

[00:33:28] **Dave:** It's definitely a temporary hack, but given that a bad night's sleep reduces your ability to handle blood sugar swings by about 40%, you can be pre-diabetic on four hours of sleep, we got to get you sleeping so you can heal everything and you're going to quit eating gluten first and probably milk protein.

[00:33:46] And I say this with sadness because I think there's a lot of benefits to milk protein if you're not sensitive, and it's not the garbage industrial milk product that reduces fertility in humans. Skim milk and powdered milk, and all that crap. If you're getting real grass-fed milk, it's probably good for you unless you're allergic.

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[00:34:06] And so many of us are allergic. So I see people out there going, oh, just have Greek yogurt and cheese. They're great. I don't really see that in at least 50% of people. So if you're the grilled cheese and pizza kind of person and you just can't stop eating them, I guarantee you it's one or the other or both. And I'll bet on both. Good bet.

[00:34:26] **Peter:** Very good bet, especially if the milk you're referring to is A1.

[00:34:30] **Dave:** Which is grain and corn-fed. Right.

[00:34:33] **Peter:** Yeah.

[00:34:34] **Dave:** What about soybeans? You haven't shit on soybeans yet.

[00:34:38] **Peter:** I don't like them. I think if you're going to eat them, you need to ferment them. You need to break down a lot of the garbage that's in them, and you definitely need to make sure they're organic. I think it's 95, 98% of the soy grown in the US is glyphosate and GMO.

[00:34:54] So I'm not a fan of it for that reason, but there are some medicinal benefits to soy postmenopausally. You mentioned menopause earlier. And because it acts as pseudo or not, it has molecules in it that mimic the action of estrogen or will bind to estrogen receptors.

[00:35:10] So it can be used to piece hot flashes or other types of symptoms during menopause. But as a general healthy whole food, if you're crunching down on edamame, and you're eating processed soy-based products, it's a bad idea. Is soy evil? I think farmers use soy a lot to improve nitrogen retention in the soil when they're rotating their crops.

[00:35:33] So it does have utility and purpose beyond food as well, but just not a food I would encourage people to use as a staple. And if you're going to eat it, ferment the hell out of it, and reduce some of the detriment that's in it.

[00:35:49] **Dave:** I've actually changed my tune on soy milk, and it turns out there's times I just love soy milk. If I notice that my man boobs are not as big as I want them to be, then I just drink some more soy milk so I can have that full look that I'm going for to have the enough cleavage. Right?

[00:36:06] **Peter:** In today's gender fluid society, that might come in handy, right?

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[00:36:11] **Dave:** Do you think we should start a brand of soy milk called Gender Fluid, just to be real straight fluid?

[00:36:17] **Peter:** It would probably sell. I don't know.

[00:36:20] **Dave:** I just thought of that when you said-- I was like, what's a gender fluid? Oh wait, that's what you're talking about. But that'd be a great name for soy milk. So I've now pissed off someone who's gender fluid. I don't care if you're gender fluid. I'm a biohacker. I support your ability to grow a third ball if you want to, and to put an ovary on your forehead. I'm all in on whatever you like.

[00:36:38] But the idea that gender fluid as a name for soy milk, that's just freaking funny. And there we go. So not a fan of soy. Neither am I. What I haven't heard you talk about in wheat that's not gluten that I wanted to go deeper with you on, if you're familiar, is oxalate. Are you familiar with the amounts of oxalate in wheat, and particularly soy, and corn, and all of that?

[00:37:01] **Peter:** Yeah. All grains are high in oxalate.

[00:37:03] **Dave:** Except for white rice?

[00:37:06] **Peter:** I would argue even that that's a problem with oxalate. I've seen it elevate people's oxalates.

[00:37:11] **Dave:** You have white rice. It's got almost none, like one milligram kind of a thing.

[00:37:15] **Peter:** Yes, I have.

[00:37:17] **Dave:** For species of rice.

[00:37:18] **Peter:** It's got to be. I agree. Because if you look at the oxalate research, it's like gluten research. We know some things, but we know a lot of things. We also don't know a lot of things. Let's tie this into mold. I think that will be a fun conversation. So candida, the species of yeast that pretty much grows in everyone's microbiome, what we call microbiome, which is fungal biome produces oxalate. There's actually a metabolic pathway by which mold can produce oxalate inside of you.

[00:37:52] And so what we see a lot of times is people that have yeast overgrowth, they can tolerate oxalate in their diet if they didn't have a yeast overgrowth in their gut. And the yeast

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overgrowth combined with the rapid and excessive quantities of grain coming in create an oxalate burden. And so basically they've got little tiny glass shards circulating through their system that just lodge into every tissue.

[00:38:16] I just recently saw a paper. It is a very interesting paper on Parkinson's disease where they actually found oxalate crystals in the substantia nigra of the brain, which is actually crystallizing the area of the brain that is responsible for the production of dopamine. So I think oxalates are very important for people to realize, especially if you're going on a gluten-free diet, because one of the other foods that is extremely high in oxalate is almond.

[00:38:39] And so if you're going to almond flour, almond milk, almond butter, as an alternative, we've seen people actually get oxalate flares as a result of going gluten-free, thinking the gluten-free diet was harming them, when in effect, it was actually that they were just making few choices that were driving up their oxalate levels.

[00:38:56] **Dave:** Yeah. I really regret my time as a raw vegan. I was doing spinach, kale, beets, almonds all the time, and red raspberries, which are almost as high as spinach. And I did have all the symptoms of this, the tartar on my teeth, the crusty crap around my eyes, the gout, the pain in the joints. I didn't get kidney stones. Thank God.

[00:39:19] Now that I realize that, and it takes years to get rid of that buildup, I'm so much better off since I don't eat high oxalate foods, but it turns out soy is particularly high, and so are most of the grains. And chocolate's also high. So I've actually backed way off on that. But what I do know for a fact is that I can feel oxalate, and most people who are listening can as well.

[00:39:45] Order a spinach salad. You'll have to throw it away after you see what I'm talking about because you don't want to eat that. But take a couple of bites of it, and then rub your tongue against the bottom of your back teeth, and you're going to feel how it's rough. You know that spinach salad feeling I'm talking about?

[00:39:58] **Peter:** Mm-hmm.

[00:39:58] **Dave:** That's oxalate crystals forming on the back of your teeth. And it's complexing with, there's two glands at the bottom of your mouth where minerals are secreted in saliva, and it'll complex with that and make those little complexes. So you can feel it. And I'll tell you some

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batches of chocolate, some brands of chocolate have a lot of it. It's not a tannin feeling. It's an oxalate feeling.

[00:40:22] Tannins dry your whole mouth out. If you eat a persimmon, that's a tannin feeling where everywhere feels that. This is just on your teeth. And so you do that, you rub your tongue, and go, oh, that's what it's like. And you realize sometimes you eat a food, it doesn't have lots of it. So some chocolate it's lower than others.

[00:40:39] I know in kale there's one research thing that says it's low and there's many others that say it's high. And it probably depends on, we know certainly the species of kale and also how it's grown, how stressed it was. The more stressed the plant, the higher the oxalate. You look at wild blueberries, they're relatively moderate. Organic blueberries that are not wild, didn't have any bugs eating them.

[00:40:58] They're very, very low. So you end up going through and realizing, oh, we don't really know. It's on a per batch basis. So haven't seen an oxalate reaction from white rice. I'm really surprised. But I also wonder if the white rice fed candida that fed oxalate. I bet that was the issue.

[00:41:15] **Peter:** Yes, possible.

[00:41:16] **Dave:** Interesting.

[00:41:17] **Peter:** I think that's why carnivores become so popular.

[00:41:19] **Dave:** I'm 100% certain. It'd also make you sick after a few months for most people. It did for me. We didn't call it carnivore back when I was testing the Bulletproof Diet. I went on an all meat. I did have butter and coffee, but just meat, and butter, and coffee for three months.

[00:41:34] **Peter:** You had butter and coffee for real?

[00:41:37] **Dave:** Yeah. Who would've thought, right?

[00:41:39] **Peter:** Who would've thought?

[00:41:40] **Dave:** Yeah. So some carnivores will say, well, it wasn't carnivore because you had salt or whatever. But man, the first few months I was like, I feel so good because oxalate drops. But then you do get these flareups when your body starts secreting oxalate. But man, after three months, sleep is no good.

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[00:41:57] It was not good. My stress hormones went up. So that was why the Bulletproof Diet, was clean, low-inflammation plants. I don't care if it's fruit or some plants like arugula. I'm cycling in and out of ketosis, and I've found that rice, and if you tolerate it, honey, are the safest sources of carbs, but the mold people tell you that you shouldn't have any starch because there's an amylase problem that happens when you're exposed to toxin mold at which point rice would be taken out as well. Do you have any fears of starch versus sugar in terms of plants you eat?

[00:42:32] **Peter:** I don't, as long as I'm not in mold and as long as I'm doing my part to stay healthy and eat well and eat balanced. This sounds cliché, but I'm really a fan clinically and personally of what I just label as the rule of thirds. I'm aiming for my macros to be a third carb, a third fat, a third protein, and I find for me, that works extremely well and for the vast majority of my patient.

[00:42:58] **Dave:** When you say one third protein, that includes gluten and zein because those are protein?

[00:43:02] **Peter:** No, no, no, no, animal protein, animal protein.

[00:43:04] **Dave:** It's actually not the rule of thirds. It's high quality protein and then canola oil. Oh no. And it's high quality fat. And then what plants do you like?

[00:43:15] **Peter:** Yeah, I like all kinds, but mostly, if I'm going to eat something, I like root vegetables. I'm not afraid of potatoes the way a lot of people are.

[00:43:26] **Dave:** I would love to.

[00:43:27] **Peter:** I think it's a quantity issue. I think for a lot of people it's a quantity issue. You don't go gorge on a baked potato with margarine all over the top of it. You have some food, and you reign it into what your needs are. And your needs may be different than mine. If you're going and working out and doing two a day football practices in a 110-degree weather, your diet needs are going to be a little bit different than somebody who's just trying to get through a normal day where's that's part of their physical acumen.

[00:43:57] So I think part of it is you have to biohack yourself to a certain extent. But I think when you're biohacking yourself and you haven't figured it out, one of the most important and smartest things a person could do if they're just trying to figure it out, is low hanging fruit.

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[00:44:15] Get rid of grain. Get rid of all grain, not just wheat. Get rid of dairy. Those two, get rid of processed sugar. Get rid of processed foods, and get rid of GMO, and get rid of seed oils. Let's not call those foods, and just start with real meat that's grass-fed, free-range organic. Start with real fresh, organic whole produce and fruit and limited quantities.

[00:44:41] Don't eat the whole watermelon kind of thing. And nuts to your ability to tolerate them. But nuts be cautious with, because there's some nuance with nuts if you're trying to climb out of the chronically inflamed hole, like many people are trying to do there. There's oxalate in a lot of nuts.

[00:44:58] **Dave:** Oxalate and omega-6.

[00:45:00] Peter: Yeah, omega-6.

[00:45:01] **Dave:** We're very aligned. That's on the Bulletproof Diet roadmap. It's the free download of the Bulletproof Diet book, daveasprey.com/roadmap, guys, if you don't have it. We would probably be 95% aligned. I'm probably more positive on white rice than you are.

[00:45:17] But you make a really clear point. If it's 5% inflammatory gluten, like proteins, then there's a case to limit that if you're exceptionally sensitive. And same thing with dairy. I'm like, you could probably handle butter, grass-fed butter, but it does have dairy protein in it. And some people have to go to ghee.

[00:45:32] Some people have to eliminate rice. But I'm just like, how do we get you so you're healthy enough to recover, but you're still living life in a way that's sustainable for you. Locking yourself in a cave and doing everything perfectly, it might be faster, but probably can't afford to do that for very long.

[00:45:51] So I just remember there were times when I was spending 20% of my income on supplements and doctors in my 20s because I was like, man, I'm not going to be able to keep working if I don't fix this. And it was my most important thing. I even affected one of my relationships back then. She's like, why do you keep spending so much money on your health?

[00:46:09] I'm like, because I don't have my health. And I know so many people, I think you do too, in your patient population. People have gone bankrupt just trying to get over mold, trying to get over gluten sensitivity. Any advice for people who are just at the end of the rope, like, I don't

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have any more money to buy supplements and I'm having a hard time here? What would you do you first?

[00:46:29] **Peter:** I changed my diet first. It's the lowest-hanging, easiest, most controllable factor that you have in terms of your choices. Don't worry so much about exercise when you're in the hole, but try to have some motion and some movement to tolerance. Go outside for a walk regularly. Put your feet to the earth, get some sunshine every day.

[00:46:49] Don't be scared of skin cancer. Get out there based on skin tolerance. Again, use good judgment and common sense, but the sun's not going to give you cancer faster than your health is being destroyed if you're trying to dig out of that hole and the sun. There's so much evidence it's the freest medicine, and it's one of the most powerful, so get it and get it often.

[00:47:07] And if you live in a more northern climate, consider red lights. Consider even ultraviolet lights in the winter months. Again, those things cost money. Sunlight is free. So again, get that sunlight where you can. Go to bed on time. If you're struggling with sleep, at least try to set patterns and habits where you're consistently getting in bed at the same time, even if you can't fall asleep right away. Set your body up for success so that it can rebalance its circadian rhythm. This, again, is something you can choose to do on a frequent and daily basis.

[00:47:37] Filter your air and filter your water. You if you do those, I call them my six non-negotiables, eat well, sleep well, exercise to tolerance, breathe clean air, drink clean water, and get sunshine-- because those things don't cost you more. Those things are easy and accessible to everyone.

[00:47:59] And if you're doing those things consistently and you're still struggling, now's the time to use technology to enhance your knowledge base about what you need to do as a unique individual. That's where you work with somebody. I would encourage anyone to work with a functional doctor who's got a great reputation.

[00:48:16] Look, as you were mentioning earlier, there are a lot of charlatans out there. There really are, and there's a lot of Western medical coming on board to functional medicine, not because they're passionate and they love to help people, but because they found a profitable business model that doesn't enslave them to the insurance model.

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[00:48:30] And they're doing it for the wrong reasons. And I know a lot of them. I'm not going to name names, but people that have good reputations usually have really good reviews. So look for that kind of thing. If you're trying to pick a good one. And ask a friend, ask somebody who's had success working with somebody and just get a good name, and work with somebody.

[00:48:49] I love it when people can heal themselves with just doing their own research and just biohacking their way to better health. But look, if it's taking you longer than two years, five years into this, or 10 years into this, quit it. Stop it because you're ruining your opportunity at wonderful years of life by not humbling yourself well enough to accept guidance into your life.

[00:49:15] And so find that person that you can trust and accelerate your timeline with technology. There's laboratory technology that can give you so much insight about how you can manipulate your diet even better than just generally saying, cut these things out.

[00:49:30] I wrote about it in my book, No Grain, No Pain. One of the first stories in that book is a little girl who was terminal. She had six months to live. She had juvenile rheumatoid arthritis. She was nine. Her doctors had pumped her full of methotrexate for seven years. She had a port embedded in her arm. It was permanently embedded because she was in and out of the hospital so frequently.

[00:49:49] So for seven years, this little girl struggled. She was gluten sensitive and allergic to blueberries, and every morning her mom would give her a blueberry smoothie. And blueberries are perfectly fine and perfectly healthy, but in her case, it was holding her back. And it was technology that allowed us to discover that.

[00:50:06] And how else would you discover it? Because every website that you go and look at calls blueberries a superfood. So it's a very confusing world out there, and just recognize that everyone has a unique blueprint. And if you're not finding it with your own biohacking, tap into some great doctors, and some great minds, and some great technology that can help you get over that plateau.

[00:50:31] That literally is the best advice I can give. And if you find your health biohacking, you're right, and your doctor's wrong. If your doctor's telling you you need to do it differently, but you feel fantastic, he's wrong. And I would own that too. If a patient came in and said, Dr.

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Osborne, I disagree with you. This is what I've done and it's worked fantastically well for me, and I'm abundantly energized, and I feel fantastic, how can I argue with an outcome or a result?

[00:50:56] Because everyone's n equals one. And nobody's going to love you more than you love yourself, and nobody can care about you more than you can care about yourself. So be a biohacker. Be in tune with your body. But also, again, if you hit a limitation, humble yourself enough to seek out an expert and find that person who can co-author your next chapter of great health.

[00:51:19] **Dave:** You actually have a gluten masterclass that's pretty cool. It's 10 modules, 14 hours, just to teach people really the nuances. So if you're listening to this and you're saying, man, this gluten thing seems like it might be at the root for me, we've got a world class expert here. So where do people go to get the gluten masterclass?

[00:51:39] **Peter:** That's glutenallergy.net/registration. It's free, no charge. You asked me earlier why did I start gluten-free society? It's because all of the celiac research facilities in the world weren't talking about the other grains, and they weren't talking about how to be healthy. They were just saying, you have a disease, change your diet.

[00:52:01] But they weren't reflective of how a person should change your diet and what they should be eating to be healthy. They were just saying, eat as much corn and rice, junk food, as you want. You just have to avoid wheat, barley, and rye. And I felt like that message was killing people. And when I met Ginger, the little girl I was talking about earlier, she actually is who changed my trajectory in my course for my life.

[00:52:21] Because she's actually the reason why gluten-free society was started. And that's where that gluten masterclass comes from. I made it free so that people could access it because I don't have 14 hours to give to each individual in the world who needs to hear it. But if somebody can find that information and find value in it, and it saves their life or changes their life for better ways, that's what we're about.

[00:52:47] **Dave:** I like it. This is one of those things that I wish I'd have known when I was about 19, because there was so much going on with my health. Gluten was a part of it. Mold was a part of it. Dairy was a part of it, but gluten was very central for me. And it still is. It's still

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wrecks me. Maybe it's not gluten, maybe it's some other aspect of wheat, but it sure feels like it's gluten to me.

Whatever it is, I know consistently if I have it, I'm doing so well. If I'd just known, it would've really reduced the amount of money that I spent on all kinds of health stuff trying to get better and just made my brain work better. I probably would've had much better grades. One of the things that people don't understand is that the amount of time ADHD or just brain fog is tied to gluten and dairy and these other grains, it's meaningful.

[00:53:34] So if you're in high school or college and you're trying to focus and it just isn't working, you might look at your diet because this was a major thing that happened with me as well. And it's funny, I was on the Jay Shetty show, I believe, recently, and I talked about an Uber driver who had dropped me off actually to get a blood test.

[00:53:59] And he'd been in the school lunch system designing menus, head of the cafeteria, for 30 something years. He was just driving Uber in the morning before he went into the school, and he said, this year and last year, I've never seen so much wheat. It's just wheat, wheat, wheat. They got wheat in everything.

[00:54:19] They have trends over time. Used to be corn, now it's wheat. And he was just shaking his head, but he had multiple decades of looking at this. And I talked about it on the Jay Shetty show, and funny enough, a few people online like, you're making up that story. I'm like, nah, I've got the receipts from that ride.

[00:54:33] It was just so fascinating to hear someone who's watched how we've fed our kids for generations. So we know wheat's grown up in our diet. We know it's bad for us. And I think you're one of the guys with the biggest voice in that specific thing saying, look, look at the science. Here's what it's doing to us.

[00:54:51] And as a biohacker listening to the show, by controlling this variable in your environment, in your food environment, you can magically give yourself energy back, give yourself your brain back. Maybe your knees don't hurt anymore either, and stuff like that. But whatever it is, you don't have to be young to do it.

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[00:55:09] It just counts more when you're young because you have to undo the damage that eating this for 20 years is going to do. So if you're a teenager and you realize, you know what, screw the pizza, and probably screw the corn, and soy, and oat-based gluten-free pizza as well, and order the steak, or the chicken, or the burger with a lettuce bun, which is what I usually do, you'll probably feel a lot better.

[00:55:32] You'll probably live longer and you'll probably make more money. And frankly, you'll probably date more attractive people because you'll be a more attractive person because your skin will look better and you'll probably smell better too. Your pheromones will work. All of this is tied to what's on your fricking plate. It's not that hard, but no one told me, so now we are here to tell you this. Is anything I said there wrong?

[00:55:54] **Peter:** No, not at all. I think you'd be a great ad spokesman for why to change your diet away from grain.

[00:56:01] **Dave:** Yes. Axe body spray tried to hire me one time to write copy. No, they didn't. But could you imagine? I would never. But the reality is different people at different stages of life, gluten is going to affect you. It's earlier on to deal with it. And if you're one of the half of people who now has the stuff that I had when I was in my teens and 20s, you don't have to do it anymore.

[00:56:24] You can be done with it by the time. If you're 20 right now going, this sucks. I can't control my brain. I'm all over the place. By the time you're 21, you can be done. Because when you're young, you can train. You change so fast. And if you're 35 and you're just figuring this out, which is when a lot of people do it, it might take you two years. If you wait till you're 50, it might take you three years, but you still do it. It just takes more investment because you took more time to screw yourself up.

[00:56:48] **Peter:** Yeah. Scientifically, it takes 30 to 90 days to get 20 parts per million exposure of gluten out of your immune system's memory. So when we look at half-lives for gluten antibodies, it's 30 to 60 days. That's a cheat meal you were talking about.

[00:57:10] Or I think you said Tim Ferris was talking about the cheat meal. Now, this is true if you're gluten sensitive. If you're not gluten sensitive and it's something else in the grain that's bothering you and it's not the gluten, this doesn't apply. But if we're talking specifically about

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gluten in the immune system, it takes about three months to get that stuff completely out of your system. So 20 parts per million rule, which is been well established for years, which is 20 parts per million of gluten exposure can cause inflammation for three months. If you're gluten sensitive, don't cheat.

[00:57:41] **Dave:** Yeah, cheating doesn't work. And also, eating something because it says gluten-free is one of the dumbest things you can ever do. It's almost as dumb as eating something because it's plant-based. Oh, it's impossible, but you don't care what's in there. You just care what's not in there. Most of the gluten-free stuff that I see out there that's highly processed is at least as bad for you as gluten-containing things.

[00:58:03] There's a whole array of other grains in them that trigger different things. There's usually a bunch of sugar, and quite often, a bunch of oxalates. So I don't touch that stuff. But what will I do if I want a cheat meal? I'm fine on white rice. I can make really good desserts with white rice if I want to.

[00:58:18] And there's nothing like a coconut-based ice cream. Yes, it might have some sugar or honey, or maple syrup, whatever you like in it. Dude, it's a cheat meal. You're going to raise your insulin, but you're not going to raise a bunch of allergies unless you're healing from a yeast growth, in which case you're going to be low carb for a while.

[00:58:37] But keep in mind candida can eat ketones as a fuel source. A lot of people don't know about that resource. So you do want to starve the candida, but in that case, I'm actually a fan of just taking some antifungals that'll knock out what you got so you can move on with life. Am I right or wrong on the antifungal approach to candida?

[00:58:58] **Peter:** I like caprylic acid.

[00:59:03] **Dave:** You mean brain octane oil? C8 MCT oil is an antifungal? Holy crap. It's almost like someone's been putting that in everyone's coffee for a while. Damn.

[00:59:11] **Peter:** Yeah, yeah.

[00:59:12] **Dave:** Yeah, you guys have been getting antifungal if you use Bulletproof Brain Octane, which is good because you really don't want a fungus growing in you. That was an added bonus that comes in the original recipe there.

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[00:59:24] **Peter:** Yeah. Added bonus for sure. I love using caprylic acid, and there's a number of different herbs that are super potent that can knock out candida overgrowth.

[00:59:32] **Dave:** Oregano, GSE, grapefruit seed extract. What else?

[00:59:35] **Peter:** Yeah, yeah, yeah. Berberine is very effective as well. We actually do a culture sensitivity when we have somebody in the office. So we culture sensitivity to see what natural items will work, if natural items will work. But also, what pharmacological options there would be too. I tend to try to steer away from that if possible. I'm more of just a natural guy, but--

[00:59:58] **Dave:** I respect that.

[01:00:00] **Peter:** If you need it, you need it.

[01:00:02] **Dave:** I respect the natural approach, and I also respect that I want to get well right now and I don't have a lot of money to spend on lab testing approach. And I finally just realized for a lot of people, fluconazole and nystatin, they're prescription drugs. Fluconazole is relatively rough on the liver, but only in a small percentage of people.

[01:00:23] If you do those and stop eating sugar for a month, you're probably not going to have candida anymore, and maybe have some MCT oil as well, just to make sure you hit the third pathway. And I've seen people, including myself, get better real fast on that way. And I've also spent nine months getting rid of candida naturally.

[01:00:41] I just found that for me, if it happens, I'm willing to take the hit with the pharmaceuticals because I got stuff to do. And also there's a budget thing. Fluconazole is relatively cheap if you order it generic, and nystatin is as well. But if you get it compounded and expensive, you can go up from there.

[01:00:58] So if you're managing your budget, you could spend 75 bucks and buy your drugs from Canada or Mexico and probably get rid of candida. You're going to have detox symptoms. You're going to need to take charcoal. It's not that easy. But if you're a biohacker and you can't afford the doctor, or your doctor doesn't believe you, like mine didn't when I had candida years and years ago, what are you going to do?

[01:01:17] What they should do, they should go see you. And they should get all the lab tests in culture and see what they're sensitive to. But if you're not going to do that because you're not

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going to have \$500 to see the doctor and pay for lab tests for the next six months, spend 100 bucks. And if you know it's candida, you probably knock it out. Am I being cavalier with that approach? It's okay to say I am. I'm just--

[01:01:38] **Peter:** Maybe.

[01:01:38] **Dave:** Desperate is what I'm--

[01:01:40] **Peter:** Look, everybody's got a unique situation. Far be it for me to judge a person's ability to afford whatever it is that they want to put it as a position in their life of importance. I see people spend \$1,000 on an iPhone, and they won't break for a copay. So everybody's got a priority. Is it cavalier? I would say it would be cavalier if you were talking about a drug that had a track record of killing people.

[01:02:04] **Dave:** Yeah, yeah. You mean like Tylenol?

[01:02:08] **Peter:** Like Tylenol or aspirin even. 13,000 people died last year from aspirin use, from appropriate aspirin use. Although they're comically referred to a lot of times as safe. There are safe drugs there. There are safer drugs, let's just say that. They all--

[01:02:23] **Dave:** Like piracetam?

[01:02:28] **Peter:** Like, dare I say it, ivermectin.

[01:02:32] **Dave:** You're supposed to cough when you say that for the algorithm.

[01:02:35] **Peter:** Ivermectin. Yeah, yeah. But yeah, I think too, a lot of people-- look, my attitude is very stoked in this way. I believe that you should take care of yourself, and if you take care of yourself, you don't really need drugs. And if you take care of yourself really, really well and you don't need drugs, then it's not even a conversation that we have to have.

[01:03:01] But if you're abusing yourself purposefully, and you know better, that's where it becomes a problem. But then there are people that are undereducated that don't know any better. And so they're not really purposefully abusing themselves. They're just ignorantly abusing themselves. And that's really where the problem is.

[01:03:17] Because if we chase why that actually happens in our society today, where we have instant information, it's greed. It's very much greed. You've got so many people making money

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off of the hurting of humans, and it's just sad. It's just sad that we could be in this world today. Here we are talking.

[01:03:35] I know you've done so much for the biohacking community and just even creating a realm where people can be comfortable about making decision without their doctor by listening to themselves and experimenting with themselves. And I think that's a beautiful thing because you should be your own doctor first.

[01:03:50] You should always try to be your own doctor first before you have to go seek somebody else out because nobody's more of an expert of you than you. But we have so much misinformation and so much coercion, and we saw a lot of that in the past few years when we saw just outright lying and outright mandating what people should be doing, to the great harm of many.

[01:04:13] And think if we could get past that just as a society, I know maybe I'm thinking in a utopian world, it probably will never happen because there's a never ending good versus evil battle that I think will never go away. But it just doesn't mean that I can't be sad about it.

[01:04:29] **Dave:** Yeah, I believe people should take care of themselves. I also believe most people are doing their best. They don't know what to do. I genuinely, religiously, followed the advice they told me when I was really fat and really tired, the six days a week, 90 minutes a day of exercise, low-fat, low-calorie, all this stuff, and it didn't work.

[01:04:54] And it was that disillusionment that led me to start doing the biohacking. I'm like, I'm going to have to do this myself, because they lied to me. And maybe they didn't lie. Maybe they were just wrong. But it sure looks like they're lying because they have access to the same data that I do.

[01:05:09] I think there's some willful self-deception going on. So if you're sitting out there and you're obese and you hear this, and maybe you're young, yeah, you should take care of yourself, but you're probably trying. You just have bad information. Or my favorite is, this happened to me, a really obese doctor.

[01:05:28] I'm like, man, my brain's not working. I feel like I've been poisoned. And it turns out I was by toxic mold. And he goes, well, maybe you should try to lose weight. And I go, well, you

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think I'm not trying? And I looked at him, what about you? Why are you still fat? I wasn't trying to be rude, but I wasn't angry, guy in my 20s, his brain wasn't working very well.

[01:05:51] So I'll take credit for being a jerk. And he says, oh yeah, if you follow my advice to just exercise more and eat less, it'll always work. I just don't take my own advice. And the asterisk there, they didn't, say is because no one can follow that advice a very long because it's bad advice. So what this means is if you're struggling right now, doing the right thing will stop you from struggling.

[01:06:15] And I'm going to tell you, gluten and other grains are probably a major piece of the problem that you don't know about. And it's not okay to have on weekends. It's not okay to have in cheat meals. Just go without for three months, see how your life changes. And it doesn't mean eating gluten-free donuts instead of gluten donuts.

[01:06:33] It means not eating any grains. You can do it only three months, and probably less time than that. You're just going to say, what just happened? Well, welcome to being upgraded. That's what just happened.

[01:06:44] **Peter:** Yeah, absolutely.

[01:06:45] **Dave:** Peter, what is something that most even functional medicine doctors don't know about gluten or autoimmunity? What's the latest thing that's got you all hot and bothered?

[01:06:55] **Peter:** Oh gosh. I'll say it's not the latest thing, so it's maybe not sexy, new, marketing [Inaudible], but it's I think a lot of functional medicine doctors piecemeal their clientele. And what I mean by that is-- okay, I said earlier there were six things that a person-- I called them the six non-negotiable fundamentals of human health, the right diet, sleep, exercise, sunshine, clean air, clean water.

[01:07:27] If I were going to approach somebody as a doctor and just say, I just want you to eat right, forget the other five, that's piecemealing. That's saying, you do one of the six things that you need. Now, imagine if we were taking a six-question test. What would each question be worth approximately in terms of points?

[01:07:44] And if you're only doing one of the six, you're going to fail, and you're going to fail frustrated because you're doing something right at great cost to inconveniencing your life, like if

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you change your diet, but then you're not doing these other things that coincide with it. I think a lot of doctors are just guilty of not laying that out in a consistent way that say, look, yes, eating right is important, but these other things are equally important.

[01:08:07] Please do them all together so that we don't end up coming back three months from now and you're this much better instead of this much better. I think that's what I would say if I could say to all of my colleagues who were claiming to be functional medicine, do that. Don't piecemeal your clientele and your patients.

[01:08:25] Give them the tools to do all the things that are necessary to achieve their health that are the lowest hanging fruit. And help them and guide them in ways that they can do it. Don't just say, go exercise. Have a conversation with them about what that actually means for them in the state that they're in.

[01:08:40] So it's not just about generically just here, but have that conversation, take the time with them. And I think if more doctors did that, even without lab testing them, even without lab testing, I think we would see a tremendous turnaround in so much health and a lack of the frustration that I see.

[01:08:59] My practice right now consists of about 300 new people a year. I don't see more than that because I want to give good care, and I need time to do that. But in that framework, the average person that comes to me has been to about 15 doctors, and pissed, and they're frustrated.

[01:09:17] And not just 15 traditional medical allopathic doctors. They've been to all the regular allopaths. So they've been to the GI, they've been to the rheumatologist, they've been to the internist, they've been to the GP, they've been to all the ologists. But then they've also been to a slurry of integrative doctors and a slurry of natural doctors, or slurry where people who are calling themselves functional.

[01:09:40] And they've just been piecemeal. And it's great for me because I can turn that around and, I can help them turn that around. But it's terrible for these people who's just spent 15, or 20, or \$30,000 in five years of their life going through all these different hamster wheel hoops trying to figure out how to get healthy.

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[01:09:59] But nobody's really ever sat down and just taught them fundamentals. Fundamentals work. And if we could agree to anything-- you and I agree on pretty much most things that we've talked about today, and these are all just fundamental things. But people don't understand what fundamentals are.

[01:10:16] And then you have doctors that are on both sides of the coin of what we would consider to be fundamental. You'd have another doctor over here say, food has nothing to do with your rheumatoid arthritis. And so it's this bipolar dichotomy. It's like with anything else. If we could just, as a doctor, all get together and say, hey, what can we all agree on that would make people just healthier?

[01:10:40] And could we all just have that core message dialed in? And I think we could all agree that food matters, sleep matters, exercise matters, clean air matters, clean water matters, and sunshine matters. You can't argue those things. This are, as far as written science is concerned, 5,000-year-old principles of Ayurvedic medicine, which is just basically be your own doctor by applying those fundamentals.

[01:11:02] **Dave:** Exactly. It's the be your own doctor. You mentioned something really important there, Peter. A lot of people are angry at doctors, and I went through this, man. The guy at Palo Alto Medical Foundation who told me vitamin C would kill me, even though it was one of the few things that was helping me back then feel a bit better, when I was living in toxic mold, who looked at me straight in the eye and said, it's not yeast or mold.

[01:11:23] If it was, you'd be dead. Because I actually diagnosed myself properly before the internet had that info on it just by reading a bunch of health books. But now I was, ah, that's impossible. So I threw out my hands and was like, this guy's actually incompetent. He doesn't know who Linus Pauling is.

[01:11:38] He won two Nobel prizes and took a lot of vitamin C. By the way, I actually don't recommend a lot of vitamin C today, but I don't think it's going to kill you either, especially if it makes you feel better. So for four years, I just went off, and it was one of the things that made me into a biohacker. I read all the papers, read all the books, and finally, I had this almost like anger towards medicine, towards the medical field, keeping in mind I've been married to a doctor for almost two decades.

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[01:12:02] So I got over it, but I was really mad because it almost felt combative, like they weren't listening, like almost they were gaslighting me. And a lot of people do feel gas lit by western doctors. I would feel most gas lit by a western doctor who held up a flag that says, I'm functional medicine. I'm longevity. Have some statins, have a vaccine, and go work out. You'll be fine.

[01:12:23] That's the worst form of gaslighting because it's like invading the territory of let's change medicine. But what I did is I got really mad and I finally went to a doctor, her name was Christine, in Palo Alto, Christine Green many, many years ago. And I was like, you're just a permission slip for lab tests and drugs. I don't need you. I don't even want your advice. I have one of these seven conditions. I've stack ranked them in likelihood of having it. And I want this lab test from this lab, and I want this treatment if I have that. I was like, I've done my research.

[01:12:58] This is my PhD in hacking myself. And to her credit, she just took a step back, didn't take it personally. And she said, I hear you. How about you let me look at your lab results here, and I'll help you to order the list so we can see which of those is most likely. And I give her a lot of credit because I was an asshole.

[01:13:21] So if you're listening to this and you feel as mad as I did, you don't have to be mad at your doctor or at doctors, even if you've seen 15 of them. The doctors that I know, and I've lectured to thousands, and I'm friends with hundreds, very close friends with many, they're healers.

[01:13:37] They want to help you. And maybe they don't know, or maybe it's something you don't know, but there is a way out because, man, if all the stuff I had wrong, if I could do it, I think I was a test case hard to solve, and it happened. So I just want anyone listening, start with gluten.

[01:13:53] It's pretty cheap to eliminate gluten from your diet. You can eat other stuff and do some of the other things, but if you're mad at your doctor, the way Peter just talked about, they probably don't deserve it unless they're one of those mindless drones out there. There are some people like that, but there's far more good ones than bad ones, just like there are in the rest of the professions.

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[01:14:12] **Peter:** No doubt, and I think too that you have to understand where they're coming from. Most people have the perception that the doctor understands things like exercise and nutrition. They don't. The average medical student has less than seven hours of nutritional training in their graduate training, less than seven.

[01:14:35] And if you're a doctor, you have to go and seek it out. You have to want to learn more. You have to go to postgraduate conferences and everything else. So if you, as a consumer, hiring that doctor as your advocate, know that and understand that about them, know what they do. They practice medicine.

[01:14:51] That means they are very skilled at looking at different biochemical markers and looking at blood work and looking at images like CAT scans, and MRIs, and x-rays, and saying, look, there's a dot here. There's something strange here. There's some arthritis there. There's a inflamed marker here, or there's an antibody here.

[01:15:08] We can give you a name because what we have done is we have categorized and we have clusterfied the names of syndromes and diseases based on the presence of these abnormalities that we find when we do this x-ray, or when we do this lab work. And then from there, we can give you a biochemical manipulation that will reduce your symptoms and improve the quality of your life.

[01:15:29] That's what we do. That's what they do. So if your perception is any different than that and you go into that doctor expecting them to find out why you're sick, you're in the wrong place. Doctors don't tell you why you're sick. They tell you that you're sick. They classify it, and then with compassion, try to improve your quality of life.

[01:15:50] And so we can't get mad at them because that's what they do. Some people say, well, the road to hell is paved with good intention. They have good intentions. I think most of them do, as you already said. But it's not the intention you think it is. It's a different philosophy.

[01:16:06] And so when you're in the world of biohacking, you have to understand, you've evolved. You've upgraded your philosophy from traditional western medicine into the realm of I no longer want to mask this problem. I want to know why this problem started, and I want to make sure that we can fix that and never let it happen again.

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[01:16:28] That is not what you're going to get if you go into an allopathic medical doctor's office, and there are some, unless you go to a particular doctor who's trained beyond their allopathic training and gone into this realm of what many call today functional medicine. I don't like the term, but that's the popularized term as we're speaking today. So just know what you're getting yourself into. If you know that, then you can't get mad at them for being who they are. It'd be like getting mad at your dog for barking at a stranger.

[01:17:00] **Dave:** It's a tough thing, and I think you're doing a great service with the glutenology.net, things you are putting out there and just teaching people the gluten part of it. I know you're working on some stuff about mold. That's an up and coming trend in the world of biohacking. If you're listening to this, I know Aunt Chippy's doing a mold summit that's coming out.

[01:17:20] I just recorded for that, and I know there's a lot of people stepping up, saying, look, this is a bigger problem. It's been a dream of mine when I started the biohacking movement. Part of the reason mold-free coffee matters is that mold is bad for you. And the intent of spreading the message about mold and coffee was that mold in our homes and our schools and our workplaces, it's a big deal.

[01:17:43] So that's why I did the much earlier documentary, moldymovie.com, which is free, and why when yours comes out, I'm happy to share it on social media of the things you're working on with mold because-- and you're listening to this and mold did something to you, it probably messed up your immune system and everything else.

[01:18:01] So it's all fixable. It all takes time. And there are people who can help. And it may not be your allopathic doctor, and it may not even be your functional doctor or your longevity doctor if they're a fake one. And if they're a real one who put in the time, learned the courses, they went to A4M, they went to IFM, and they actually studied, and they know how to read a lab, and they know how to make you feel better now and get better over time, it's just a different animal. So I want to give you hope if nothing else after this episode, and maybe just stepping away from the bagel is the first place to start. Thanks, Peter.

[01:18:36] **Peter:** Yeah. Thank you, Dave, for having me. I appreciate you.